A

Charles Abadie

Abadie, Charles (1842-1932) French ophthalmologist, professor of ophthalmology in Paris. Graduating in Medicine in 1868 he served as interne in Paris; and then studied ophthalmology in Vienna and Berlin, serving as assistant in the Clinic of A. von Graefe. Returning to Paris he became the Chief of Clinic for de Wecker; later he opened his own clinic, which grew and was subsequently located on Boulevard St. Germain. He retired from active practice about 1912, but continued to attend medical societies, visited his old clinic and wrote medical articles until 1927. For more than fifty years he was an important figure among the ophthalmologists of France. In 1876 he published his two volume treatise on diseases of the eye: *Traité des maladies des yeux*., 2 vols., Paris 1876-1877 and in 1881: *Leçons de clinique ophthalmologique recueillies par le Dr. Parenteau*. Paris 1881. Although not given to devising operations or instruments, he was known as a very skilful operator. He contributed to the great many short, clinical papers, especially devoted to ocular therapeutics. Early he became interested in glaucoma. Abadie kept his preference for iridectomy, in all acute and inflammatory cases; and chronic glaucoma, chose miotics for principal treatment, and sympathectomy, or trephining, if operation finally necessary. He emphasized importance of the sympathetic nervous system in glaucoma and in some other ocular conditions; and recommended paracarotid sympathectomy for optic atrophy. While in de Wecker's Clinic he urged the use of jequirity for trachoma. He always showed an active interest eye conditions attending diseases of central nervous system. He was Vice-president of the Section on Ophthalmology in the International Medical Congress held at Washington, D.C., 1887; and read a paper on *Certain derangements of ocular motility and their treatment*". He also opened the discussion of a paper by Henry Power on "*Microbes in eye diseases*". As lecturer and speaker in medical societies he was always heard with attention and interest.(by Edward →Jackson).AJO 1932,16:264. Annales d´Oculistique 1932, 159:689-695. *Jubilé du Docteur Charles Abadie* (50 years ophthalmologist) by Lapersonne. JPW

Abbe, Ernst Karl (1840-1905) German Professor for Physics, one of the founders of the Carl Zeiss Foundation. Ernst Karl Abbe was born in Eisenach, Germany. He received a scholarship and graduated from Göttingen University in 1861. He joined the University of Jena in 1863 where he became professor of physics and mathematics in 1870. He was named director of astronomical and meteorological observatories in 1878. In the meantime, 1866, he had joined the Carl Zeiss workshop as Research Director and, with him, began to produce a scientific under-pinning for optical products, producing in 1872 new types of optical glass. (In 1892 there were already 76 sorts of glass!) .Together, Zeiss and Abbe produced a compound microscope of unparalleled quality. This instrument was the "father" all modern compound microscopes in use today. Abbe left, in 1889, all his personal fortune to the Zeiss Company to create the still existing Zeiss Foundation. (Schmitz *Handbuch zur Geschichte der Optik*, Suppl.2, *Das Mikroskop*, Vol.2a:147-163, Wayenborgh 1989). JPW

Abbot, Frank Wayland (1841-1901) American oto- and ophthalmologist born in Burma. He was educated at Falley Seminary, Fulton, N.Y., at the University of Rochester, N.Y., and at the medical department of the University of Buffalo, receiving his M.D. in 1866, and devoting himself entirely to ophthalmology and otology. Abbot wrote numerous articles in various journals and translated Helmholtz´s "*Recent progress in Theory of Vision*" and was one of the founders of the Charity Eye an Ear Hospital. American Encyclopedia of Ophthalmology, Vol.1,p.20-21.

Abdel-Latif, Ata. A. (1933-) American biochemist of Palestinean origin, working on the eye, Regents' Professor at the Department of Biochemistry and molecular Biology, Medical College of Georgia. He was born in Beitunya, Ramallah Palestine and studied at De Paul University Chicago with B.S. and M.S. degree (Chemistry) granted in 1955 and 1958 respectively. He then received Ph.D. degree in 1963 from Mt Sinai Medical Research Foundation and Illinois Institute of Technology. He has been in the present position as above since 1987, after having served as Associate Professor at the Department of Cell and molecular Biology, Medical College of Georgia (1967-1974) as the Professor (1974-1987). He served as a Visiting Professor to the Department of Biochemistry, University of Nottingham, School of Medicine, Nottingham, England (1975-1976). He trained many postgraduate students and postdoctoral fellows. His editorial assignments include *Neurochemistry International* (1989-1992), *Membrane Biochemistry* (1987-1994) and

Executive Editor of *Experimental Eye Research* since 1992. His research interest embraces neurotransmitters, cell signaling, phosphoinositides, phosphoproteins, phospholipases and protein kinases, second messengers, arachidonic acid release and metabolism, iris-ciliary body, smooth muscle and nervous tissues. He has published more than 140 original papers in these fields and some examples are " *Endothelin-1 stimulates the release of arachidonic acid and prostaglandins in cultured human ciliary muscle cells: activation of phospholipase A2.* Exp. Eye Res. 65: 73, 1997", "*Calcitonin gene-related peptide relaxes rabbit iris dilator muscle via cyclic AMP-dependent mechanisms: cross-talk between the sensory and sympathetic nervous systems*. Curr. Eye Res. 17: 197, 1998" , "*Activation of particulate guanylyl cyclase by endothelins in cultured SV-40 transformed cat iris sphincter smooth muscle cells*. Life Sci. 64: 161, 1998" and "*Aqueous humor, iris-ciliary body and trabecular meshwork. Ocular Biochemistry*, pp. 52-93, ed. Harding J. J., Chapman and Hall, Publ. London, 1997". He is a recipient of the Nih Merit Award (1989) and Alcon Research Institutes Award (1990) and many other honor awards for the excellence of his research. He is an elected member of many professional societies, e.g. American Society of Biochemistry and Molecular Biology, International Society for Eye Research, Association for Research in Vision and Ophthalmology and many others. (Department of Biochemistry and Molecular Biology, Medical College of Georgia, Augusta, GA 30912-2100, U. S. A.. phone: +1-706-721-3364; fax: +1-706-721-6608; e-mail: LABDEL@mail.mcg.edu)

Abe, Haruki (1947-) Japanese Ophthalmologist, Professor and Chairman of the Department of Ophthalmology of Niigata University. He graduated from the University in 1971 and studied Ophthalmology under Prof.→MIKUNI Masakichi and Prof.→IWATA Kazuo; he received his Doctor of Medical Sciences in 1979 (thesis: *Studies on binocular Interaction by checkerboard pattern VECP*. J. Jpn. Ophthalmol. Soc. 83: 1575, 1979). He is in the present position as above since 1993. His research interest is in glaucoma and his publications include "*Contrast sensitivity and pattern visual evoked potential in patients with glaucoma*. Doc. Ophthalmol.65: 65, 1987" and "*Multifocal electroretinogam and visual field defects in patients with glaucoma*. Glaucoma Update (ed. G.K.Krieglstein): 103, Springer Verlag, Heidelberg, 1999. He is an active member of the Glaucoma Society of the International Congress of Ophthalmology, Association for Research of Vision and Ophthalmology, American Academy of Ophthalmology, International Society for Clinical Electrophysiology of Vision and International Perimetric Society. He is also a council member of Japanese Societies in his field.(Department of Ophthalmology, Niigata University, School of Medicine, 1-757 Asahimachi, Niigata, 951-8122, Japan; phone: 81-25-223-6161, fax: 81-25-224-2813, e-mail: abechan@med.niigata-u.ac.jp) (SM)

Abenguefit (end 10th century) Spanish-Arabian physician, born of a distinguished Arabian family which settled in Spain, at Toledo. He was noted in politics as well in medicine, and became Vizier to the Prince of Toledo and physician to the chief hospital in that city. Abenguefit also wrote, among others, a book on ophthalmology: "*Book of the Exact Consideration of the Diseases of the Sense of Sight*" which had a certain influence in Spain for many centuries. American Encyclopedia of Ophthalmology, Vol.1,p.23.

Abney, William (Sir William) de Wiveleslie (1844-1920) British scientist. He entered the Royal Navy at the age of 17, retiring in 1881 with the rank of Captain. He was elected a Fellow of the Royal Society in 1876, and was awarded the Rumford Medal in 1882 for his researches on radiation. He was a pioneer in the chemistry of photography, and wrote the first practical treatise on the manufacture of sensitive emulsions. In 1882 he delivered the Cantor Lectures of the Royal Society of Arts, choosing as his subject, " *Recent Advances in Photography."* He was also a pioneer in the three-colour process. In addition to being President of the Royal Photographic Society, he also served as President of the Royal Astronomical and the Physical Societies. Sir William Abney was appointed Assistant Director for Science in the Science and Art Department of South Kensington.in 1884, Director in 1893, and Assistant Secretary in 1899. In 1900 he was appointed Assistant Secretary to the Board of Education, and in 1903, scientific adviser to the Board. He was made C.B. in 1888, and K.C.B. in 1909. Sir William Abney's work on Colour Vision is his chief claim to recognition by ophthalmologists. In 1892 he gave a lecture at the Royal Society of Arts on " Colour Blindness." In 1894 he delivered the Tyndall Lectures-at the

RoyaI Institution on″ Colour Vision.″: *Colour vision; being the Tyndall Lectures delivered in 1894 at The Royal Institute*. London 1895. His original papers in the Transactions and Proceedings of the Royal Society are known to ophthalmologists. They are accessible in a volume entitled ″*Researches in Colour Vision and the Trichromatic Theory* ″ published in 1913. Sir William Abney carried on the tradition of Thomas Young, Clerk Maxwell, and Hermann von Helmholtz; and added greatly to our knowledge of colour vision by research inspired by the three components theory. Like his predecessors in this field he viewed the subject from the point of view of the pure physicist, and the mathematical trend of his papers, combined, it must be admitted, with an unfortunate obscurity of style, failed to gain for his work the recognition by physiologists and ophthalmologists which it deserved. He acted as Secretary of the Royal Society Committee on Colour Vision, appointed in 1890, and was the principal special examiner in Colour Vision for the Mercantile Marine Department of the Board of Trade from 1893 to the time of his death. BJO 1921,5:47-48

Abraham, James (1917-1993) Malaysian Ophthalmologist. He graduated from King Edward VII College of Medicine in Singapore in 1946, carried out postgraduate studies in London and received Diploma of Ophthalmology. He returned to Malaya in 1957, in the year of the Country's Independence. He served as Ophthalmologist in Alor Setar and Ipoh, and then as Senior Consultant Ophthalmologist in the General Hospital, Kuala Lumpur. He played important roles as a Founder Committee Member, in the Foundation of the Ophthalmological Society of the Malaysian Medical Association in 1964, and served twice as the Chairman from 1965 to 1968, and from 1969 to 1970. During his Chairmanship, the membership of the Society greatly increased, and the activities intensified. He retired from the Government Service in 1971. (SM)

Abu Bakr Muhammad ibn Zakariya al-Razi *see* **Ar-Razi**.

Abu Bekr Mohammed ibn Badjeh *see* **Avempace**

Abu Gafar b. Harun at-Targali (12th century) A Spanish-Arabian oculist, who practised at Seville in the 12th century. He left no writings. American Encyclopedia of Ophthalmology, Vol.1,p.43.

Abu Ruh. Bin Mansur bin Abi Abdallah bin Mansur alyamani (11th century) Persian born at Gurgan on the Oxus and educated both in Persian and Arabic . His work ″*The Light of the Eyes*″ constituted the standard ophthalmic textbook in Persia for centuries. American Encyclopedia of Ophthalmology, Vol.1,p.45.

Abu Zakarija Juhanna b. Masawaih (777-857) Arabian ″ophthalmographer″, chiefly known because of the numerous references made to him in the ″*Continens*″ of →Rhazes and also because of his two books:″*Knowledge of the Examination of Oculists*″ and ″*Alteration of the Eye*″. American Encyclopedia of Ophthalmology, Vol.1,p.46.

Abubertus *see* **Ar-Razi** (Rhazes).

Abubeter *see* **Ar-Razi** (Rhazes).

Abul Qasim Ammar b. Ali-Al Mausili *see* **Ammar**

Abul Barakat al-Katai. Body physician to Saladdin, who died in Cairo 598. He was a distinguished operator on the eye, but wrote nothing concerning that organ. American Encyclopedia of Ophthalmology, Vol.1, p.43.

Abul Farag b. at-Tajjib (11th century) A Nestorian priest and philosopher of the 11th century, known to have composed a book *"On the diseases of the eye"*. American Encyclopedia of Ophthalmology, Vol.1,p.43.

Abul Haggag Jusuf. An oculist of the Arabian period in Cairo. He was known to have taught the father of Usaibia. American Encyclopedia of Ophthalmology, Vol.1, p.43.

Abul Kasim ben Abbas al-Zarawi (? – 1013) This author, the greatest of Arabic writers on surgery was in fact a Spaniard. He died at an extremely old age in Cordoba, Spain. His famous *surgery* formed only a part of his great work on medicine ″*al Tasrif*″ [″*The Explanation*]. Based chiefly on the teachings of the Greeks, especially Paulus of Aegina, it exhibits nevertheless, considerable evidence of a rich personal experience. American Encyclopedia of Ophthalmology, Vol.1,p.43-44.

Abul Mutarrif Abd ar-Rahman b.Muhammed b.Abd alKarim b.Jahja Ibn-Wafid al-Lahmi *see :* **Abenguefit**.

Abul Quasim Hibat-Allah b.Fadl (1086-1162) A physician and poet of Bagdad who is said to have made a specialty in curing diseases of the eye. American Encyclopedia of Ophthalmology, Vol.1,p.44.

Abulcasis *see* **Abul Kasim ben Abbas al-Zarawi**.

Abul-Quasim *see* **Abul Kasim ben Abbas al-Zarawi**.

Adachi-Usami, Emiko (1937-) Japanese Ophthalmologist, Professor and Chairwoman of the Department of Ophthalmology of Chiba University. She graduated from Chiba University in 1962 and studied Ophthalmology under Prof. →SUZUKI Yoshitami and received her Doctor of Medical Sciences in 1968 (thesis: *Studies on ERG of the retinal artery and vein occlusion especially on their prognostic value*. Acta Soc Ophthalmol Jap.71: 39-45,1967). She studied in 1966-1967 at University of Rotterdam with Prof. Harold E→Henkes, in 1971-1973 at Max-Planck Institute with Prof. Eberhard Dodt, in 1980-1981 at Zurich University with Prof. Dietrich Lehmann. She is in the present position as above since 1984. Her research interest has been clinical electrophysiology in Ophthalmology and her many publications in this field embrace "*Apparent accommodation in pseudophakic eyes as measured with visually evoked potentials*. Invest. Ophthalmol. Vis.Sci. 33:442, 1992" and "*Distribution of pattern-evoked potentials in the facial area*. Am. J. Ophthalmol. 96: 734, 1983". In recognition of her outstanding contributions to the Japanese-German cultural exchange, the Government of Germany (President Minister Richard von Weizaecker) granted her the Philipp Franz von Siebold Prize in1988. She serves on the *International Society for Electrophysiology of Vision* as the Secretary General for Asia and Australia (1982-1989), as a Vice-President (1990-1998) and the Treasurer since 1998. In recognition of her scientific achievements, the Japan Medical Society conferred on her the Honor Award 2000, and she delivered the Award lecture "*Optic neuritis- from diagnosis to optic nerve transplantation*". (Department of Ophthalmology, Chiba University School of Medicine, 1-8-1 Inohana, Chuo-ku, Chiba, 260-0856, Japan. phone:81-43-222-7171, fax: 81-43-227-1810, 81-43-224-4162, e-mail: adachi@ophthalm.m.chiba-u.ac.jp)(SM)

Adams, Edward C. (1858-1910) American ophthalmologist. Adams received his M.D. at Northwestern Medical College, St.Joseph, Mo., in 1886 and settled in St.Joseph as ophthalmologist and otologist**.** American Encyclopedia of Ophthalmology, Vol.1,p.92.

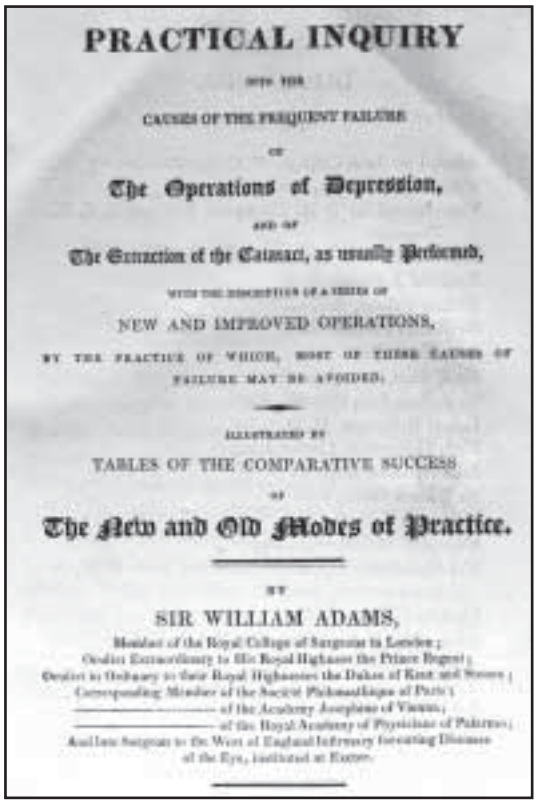
Adams, George A. (1750-1795) Famous London optician who devoted all his energy to optics and mechanics and acquired a world-wide reputation as a maker of spectacle and microscope lenses. He succeeded his father as mathematical-instrument maker to the court and wrote: "*Essays on the microscope*" London 1787 and "*Essay of Vision, Explaining the Fabric of the Eye and the Nature of Vision*", London 1789, German translation by Kries 1794, 2nd ed.1800. American Encyclopedia of Ophthalmology, Vol.1,p.92.

Adams, George, "the Elder" (1720-1773) famous British instrument maker to George III, father of George A.→Adams. He was the author of "*Micrographia illustrata, or the microscope explained*" London 1745. His treatise, that went through several editions, describes the uses and capabilities of the microscope, including the universal single and double microscopes which he invented.

Adams, Matthew A. (1836-1913) British ophthalmologist, surgeon to the Kent County Ophthalmic Hospital at Maidstone. He was the inventor of an instrument called "*Horamagraph*" used for investigating the field of vision. The Ophthalmoscope, 1913, p.382.

Adams, Philip Edward Homer (1879-1948) British ophthalmologist from Oxford. After leaving Lancing in the late 'nineties of the 19th century, he came up to Exeter College, Oxford, and during his period there as an undergraduate spent much time working at the Oxford Eye Hospital as a clinical assistant to his uncle, Robert Doyne, and for some part of this time filled the post of unqualified house surgeon there. After taking his degree and first M.B., he went to the London Hospital for clinical experience. While at London he

qualified M.B.,Oxon, and in 1904 took the F.R.C.S., (Eng.). He then returned to Oxford and started ophthalmic practice in partnership with Robert Doyne, and was appointed Assistant Surgeon to the Oxford Eye Hospital. The period 1900/1910 was a very active one in Oxford Ophthalmology. A Readership in Ophthalmology had recently been established with Doyne as the first Reader. The Diploma in Ophthalmology was inaugurated and the beginnings of the Oxford Ophthalmological Congress were in the making. Into all these activities Adams entered to the full, and it can be said that the subsequent success of the Congress was largely due to his efforts, inspired by the genius and drive of Doyne and backed by the business and literary ability of Sydney Stephenson. In 1912 on the retirement of Doyne, Adams was made Reader in Ophthalmology to the University and Senior Surgeon to the Hospital. From then on for thirty years he was the lynch pin of Oxford Ophthalmology. He was responsible as Deputy Master for a large part of the arrangements for each annual Congress at the Oxford end; as Reader he was responsible for the course of study needed by Statute for candidates for the Diploma of Ophthalmology, and he was at the same time, as Senior Surgeon to the Hospital, involved in day to day affairs relative to its efficiency. He also had a large private practice. He went through the post of Master of the Oxford Ophthalmological Congress 1925/1927 and delivered, 1931, the Doyne Memorial Lecture. In 1944/1945 he was President of the Ophthalmic Section of the Royal Society of Medicine. Adams wrote: *Pathology of the Eye*, Oxford 1912. BJO 1948,32:254. The Lancet 1948,1:349 and 1948,2:320. JPW


PRACTICAL INQUIRY

CAUSES OF THE FREQUENT FAILURE

The Operations of Depression,

The Extraction of the Cataract, as usually Performed,

NEW AND IMPROVED OPERATIONS,

TABLES OF THE COMPARATIVE SUCCESS

The New and Old Modes of Practice.

SIR WILLIAM ADAMS,

Sir William Adams

Adams, William (Sir William) (1783-1827) British ophthalmologist who was trained in ophthalmology by John Cunningham →Saunders at the London Infirmary for Curing Diseases of the Eye and Ear. He earned a knighthood in 1814 for his (controversial) claims to cure the Egyptian ophthalmia, which was then prevalent among British troops. He became surgeon and oculist extraordinary to the Prince Regent and Dukes of Kent and Sussex. Two years before his death, he changed his name to Rawson, which was his wife's maiden name. Adams wrote "*Practical observations on ectropium or eversion of the eyelids, with the description of a new operation for the cure of that disease*" London 1812; "*A letter to the Right Honourable and Honourable Directors of Greenwich Hospital, containing an exposure of the measures ... by the Medical Officers of the London Eye Infirmary, for the purpose of retarding the adoption, and execution of plans for the extermination of the Egyptian ophthalmia* " London 1817; "*A practical inquiry into the causes of the frequent failure of the operations of depression, and of the extraction of the cataract* " London 1817; "*A reply by Sir William Adams to a recent publication against him* " London 1818; "*Report of the Committee of the London Infirmary for Curing Diseases of the Eye, occasioned by the false and calumnious statements contained in a letter addressed by Sir William Adams*" London 1818; "*A treatise on artificial pupil*" London 1819. Albert, Am Encyclopedia 1,p.92 (with wrong life dates).

Adelmann, George F.B. (1811-1888) Russian ophthalmologist of German origins born in Fulda (Germany). Adelmann studied in Marburg and Würzburg and was for a certain time engaged in a general practice in Fulda. In 1837 he returned to Marburg, in order to become assistant in the surgical clinic of Ullman. In 1841 he was called to the combined chairs of Surgery and Ophthalmology in the University of Dorpat, and in this double capacity officiated for thirty years till 1871. He wrote prolifically and in four language: Latin, German, Italian and Russian. His best known writings in ophthalmology are: "*Über endemische Augenkrankheiten der Esten in Livland und verwandter Stämme im Russischen Reiche*" and "*Beiträge zur medizinischen und chirurgischen Heilkunde* ,, (2 vols.) Erlangen 1845 American Encyclopedia of Ophthalmology, Vol.1,p.97.Albert

Adelmann, Heinrich A. (1807-1884) German ophthalmologist. Adelmann received his medical degree in 1830 at Würzburg, and, in 1837 , was appointed docent (lecturer), and in 1840 extraordinary professor at the same institution. He taught theoretic ophthalmology and gave ophthalmic operation courses using phantoms and the cadavers. He invented in 1852, a suction instrument for hypopion. He also was an excellent artist and furnished the

illustrations for Textor´s *"Elementary Principles for the Teaching of Surgical Operations"* 1834-36. American Encyclopedia of Ophthalmology, Vol.1,p.97.

Adhikari, Basu Prasad (1951-) Nepalese Ophthalmologist, Medical Director of MWRECC, Fateh Bal Eye Hospital Nepalgunj. He graduated from R. G. Kar Medical College of Calcutta with MBBS in 1976 and extended his studies at Bristol University in UK and received his M.Sc. in 1990. He worked at various hospitals as a medical officer before 1990, e.g. R.G. Kar Medical College Hospital, Khandbari Hospital, Koshi Zone, Nepal, Kailali Hospital Seti Zone Nepal, Paro Hospital Bhutan, and as a SHO and Ophthalmic Surgeon at Nepal Eye Hospital Kathmandu, Royal United Hospital, Bath UK, The General Hospital Eye Department, Burton-on-Trent, U.K. He has performed more than 10 thousands cataract operations and conducted more than 24 eye camps. He also worked as a consultant ophthalmologist in Shigatse, Tibet, and trained ophthalmologists, ophthalmic assistants and medical students. Since 2000 he is also working as a professor of ophthalmology for undergraduates at Lord Buddha Medical College at Kohalpur, Nepalgunj. He is in the Medical Director position since 1994. (MWRECC, Fateh Bal Eye Hospital, P.O. Box 32, Fultekra, Nepalgunj, Nepal. Phone: +977-81-20598; e-mail: baral@fbeh.wlink.com.np) (SM)

Adler, Hans (?-?) Austrian ophthalmologist who wrote *„Die während und nach der Variola auftretenden Augenkrankheiten"* Wien 1874 and *„Zweiter Bericht über die Behandlung der Augenkranken"* Wien 1875.


CLINICAL PHYSIOLOGY
OF THE EYE

BY

FRANCIS HEED ADLER, M.A., M.D., F.A.C.S.

NEW YORK
THE MACMILLAN COMPANY
1933

Sir William Adams

Adler, Francis Heed (1895-1987) American ophthalmologist who was born in Philadelphia, the son of a physician. He graduated from the University of Pennsylvania with a Bachelor of Arts in 1916, received a Master of Science in physiology in 1918, and an M.D. in 1919. As a medical student, Adler worked in the Department of Physiology and studied at Woods Hole, Massachusetts. After internship at the hospital of the University of Pennsylvania he became an instructor in physiology at the University. In the same year he became associated with George de→Schweinitz in the Department of Ophthalmology. In 1927, he became assistant surgeon at Wills Eye Hospital in Benjamin F.→Baer's clinic. In 1933 he became attending surgeon. Adler continued in both the Department of Physiology and the Department of Ophthalmology until 1937 when he became the William F. Norris and George E. de Schweinitz professor and chairman of the Department of Ophthalmology. Adler was then named a consulting surgeon at Wills Eye Hospital. In 1933 Adler published *"Clinical Physiology of the Eye,"* the *first* textbook in English dealing with the topic. In 1950 he expanded the textbook to *"Physiology of the Eye: Clinical Applications,"* Which went through four editions. The textbook has been continued as *"Adler's Physiology of the Eye"* and is now in its ninth edition. After the death of Sanford→Gifford, Adler took over his *"Textbook of Ophthalmology"* in 1941 and completely revised it. It has been translated into Polish, Spanish, and Chinese. Subsequent editions were written by his longtime associate and successor as chairman of the Department of Ophthalmology, Harold G.→Scheie, assisted by Daniel M.→Albert. Adler was named an associate editor of the *Archives of Ophthalmology* in 1929 and succeeded Arnold Knapp as editor in 1950. He enlarged the editorial board of the *Archives*, established strict statistical standards, and developed an authoritative review of the literature on a different topic each month. He served as editor until 1960 when the American Medical Association adopted the ten-year maximum service regulation. At that time he became a consulting editor of the *American journal of Ophthalmology*, a position he held until 1965. He became emeritus professor of ophthalmology in 1960, at which time his former residents commissioned Franklin Watkins to paint his portrait. It now hangs at the University of Pennsylvania. Harold Scheie organized a special issue of the Journal of Ophthalmology (AJO 1960,50:1025) to mark this transition and William 0. →La Motte, Jr., published a tribute. In 1975 the editorial board of the American Journal of ophthalmology and members of the American Board of Ophthalmology paid tribute (AJO 1975,79:1) to

Adler's contribution to the vitality and integrity of American ophthalmology. In 1978 the Francis Heed Adler lectureship was established at the University of Pennsylvania. He served as a member of the American Board of Ophthalmology for thirty years, as a director from 1950 to 1957, as chairman in 1955, and as a consultant from 1957 to 1967. He became executive director of the Board in 1967 and served until 1980. He was active in refining the multiple choice question method of the American Board of Ophthalmology and in streamlining many of its examination procedures. Adler was chairman of the Section on Ophthalmology of the American Medical Association in 1953 and received its Prize Medal in ophthalmology in 1959. He was first vice president of the American Academy of Ophthalmology and Otolaryngology in 1954 and served as president in 1969. He received the Howe Medal of the American Ophthalmological Society in 1951 and was president in 1962. The Association for Research in Ophthalmology awarded him its highest honor, the Proctor Medal, in 1967. He received the Lucien Howe Medal of the University of Buffalo in 1961. He gave the first Gifford Lecture in 1945, the Edward Jackson Lecture in 1947, the Bedell Lecture in 1950, and the de→Schweinitz Lecture in 1954. After retirement from the University of Pennsylvania, Dr. Adler continued a consulting Practice in Philadelphia until well into his 80th year. His major clinical interest was various aspects of ocular motility. Adler's writings and lectures influenced several generations of ophthalmologists. He brought a scientific and editorial rigor to the Archives of Ophthalmology that was copied by many medical periodicals. He brought to the American Board of Ophthalmology an equanimity and scholarship reflected in a series of innovative examination techniques, candidate (and examiner) appraisal, and interaction with other boards. AJO 1987,104:448-449

Aegina, Paul of ophthalmologist of the Greek middle ages. The dates of his birth and death are not precisely known, but he undoubtedly flourished in the first half of the seventh century. Baas sets the limits of his life as 625-690 A. D., on the other hand, as pointed out by Handerson, ″if the date assigned [by Baas] for the birth of Paul is correct, he could have been but sixteen years old when Alexandria was captured an age when his medical education at least could have been scarcely begun.″ We know but little of his life. He, however, was educated in Alexandria, and practised in that city with very great success. He was also a famous writer, but of all his works, and they must have been numerous, the only one preserved until our day is the great compendium of medicine in seven books, called *"Hypomnema."*. This book became at once a high authority, and so remained not merely throughout the Byzantine middle ages, but also through the whole of the saracenic period. Even at the present day it possesses a remarkable interest, for the sponge-like Paulus, having, as it seems, the freest access to that great repository of ancient learning the Alexandrian library, and at a time just prior to its destruction by the Arabs absorbed the medical and surgical learning of the age and gave it forth again to later generations in the form of his all-embracing work *"Hypomnema"* truly a monument both to his own industry and to the medical and surgical attainments of the Greco-Roman world. The parts of the great treatise that deal with ophthalmology are: Book 1, Section 31, ″*On Dimness of Sight*″; Book III, Section 22, ″*On Diseases of the Eye*″; Book VI (Surgical), Section 2 ″*On Burning of the Head for Ophthalmia*,″ and Sections 4 to 22 inclusive, which treat of nearly all the other surgery of the eye as this was known and practised in the seventh century A.-D. American Encyclopedia of Ophthalmology 12,p.9371;

Aetius of Amida (502-575) A most exhaustive ophthalmologic compiler born in Amida (now Diarbekir). Aetius was educated at the University of Alexandria and very soon settled in Byzantium, where he seems to have passed the remainder of his days. He was a devout Christian, became Lord High Chamberlain to the Great Justinian and also body-physician to the same potentate. His famous ″*Sixteen Books on Medicine*″ was a kind of Encyclopedia of the healing art as known and practiced in his day. . The chapters on ophthalmology are the subject of a monograph by Julius Hirschberg ″*Die Augenheilkunde des Aetius aus Amida*″ (English translation by Richey L.Waugh, Wayenborgh 2000).Other editions are: ″*Libri sexdecim nunc primum latinate donati, in quibus cuncta quae ad artem curandi pertinent sunt congesta ... in tres divisum est tomos*″ Venice 1534 (first complete Latin edition of Aetius' encyclopedic compilations of doctrines and practices of the healing arts known in his day in which the seventh book, ″*De oculorum morbis*,″ contains

an extensive account of diseases of the eye; "*Contractae ex verteribus medicinae tetra-biblos*" Basle 1542; "*Contractae ex verteribus medicinae sermones XVI* "(2 vols.) Venice 1543-1544. American Encyclopedia of Ophthalmology, Vol.1, p.110-111.Albert

Agarwal, Lalit Prakash (1922-) Indian Ophthalmologist, Head of Dr. Rajendra Prasad Center for Ophthalmic Sciences (AIIMS), New Delhi. He graduated from Lucknow Medical College in 1946, studied Ophthalmology further in London (DOMS, London, 1947), in Oxford (DO, 1947) and in Lucknow (M.S. in Ophthalmology, 1949). He then served as the Lecturer in S. N. Medical College, Agra (Uttar Pradesh) in 1950 - 1957, and then as the Head of the Department of Ophthalmology at Ganesh Shankar Vidyarthi Memorial Medical College in Kanpur during 1957 - 1959. He was appointed in 1959 the Professor of Ophthalmology of the AIIMS and served until 1984. During his tenure, he also served as the Dean of the AIIMS (1977-1979) and the Director (1979-1984). He worked as the Chief Organizer of Dr. Rajendra Prasad Center for Ophthalmic Sciences of the AIIMS in 1966 - 1984. He worked as the Head of the AIIMS till 1984. His professional activities has been extensive and positions he has held are President of the All India Ophthalmological Society (AIOS) (1977-1978), Founder President of the Federation of Ophthalmic Research and Education Centers-India (1985), Honorary Member of the Association of Eye Research Workers, London (1965), Fellow Institute of Barraquer Spain (1960), Executive Committee and Vice President of the Afro-Asian Foundation of Ophthalmology (1959-1979), Life Member of the Academia Ophthalmologica Internationalis (1977) and Member of the International Council of Ophthalmology (1978-1986). He has served as the Ophthalmic Surgeon to the President of India (1964) and Honorary Ophthalmic Advisor to the Government of India, Ministry of Health and Family Welfare (1971-1979). He has been the Editor of many Scientific Journals, e.g. *Ophthalmologica* (Switzerland) and *Vision*, *an International Journal of Ophthalmology and the Prevention of Blindness*. He has served as the Technical Advisor to a large number of Ophthalmic Hospitals and Institutes throughout India and aboard. His scientific activities covered a wide area and he published more than 450 scientific papers in National and International Journals. He wrote more than 22 books and some examples are (from Publishers, Sankalp, Darya Ganj, Delhi), " *General and Ocular Anatomy*", " *Physiology, Pharmacology and Microbiology*", "*Community Ophthalmology and Entrepreneurship*", "*Chatterjee's Hand Book of Ophthalmology*", "*Agarwal's Eye Diseases*-2nd Edition" and "*Principles of Optics and Refraction* - 5th Edition". In recognition of his meritorious service, he has been granted many National and International Awards.(SM)

Agnew, Cornelius Rea (1830-1888) American surgeon born in New York City. When fifteen years of age, Agnew entered Columbia College, an institution which, in later years, was to owe much to his labors and, at the age of nineteen, received therefrom the degree of bachelor of arts. In the same year he began to study medicine, after the fashion of the time with a preceptor, Dr. J. Kearney Rogers, who for many years was surgeon to the *New York Hospital* and to the *New York Eye Infirmary,* as well as Professor of Anatomy at the *College of Physicians and Surgeons*. In the last named institution Agnew attended the regular course, and, in 1852, received his professional degree. Serving for a year, or more as house surgeon in the *New York Hospital*, he proceeded, in 1854, to what were then the western wilds, south of Lake Superior. There for about a year he practised in a village which is now Houghton, Michigan. Receiving without solicitation the appointment of surgeon to the Eye and Ear Infirmary of New York City, he returned to his native town early in 1855. Soon, however, he sailed for Europe to prepare himself still further for the arduous duties of his new position. This he did solely on his own initiative, and because of the deep conscientiousness for which he was ever noted. He did not, however, while abroad, confine his attention exclusively to the study of ophthalmology and otology. In Dublin, for example, though he studied under William (afterwards Sir William) Wilde, deviser of "Wilde's Incision" for mastoid abscess, he became, at the same time, a resident pupil of the lying-in asylum in London, a little later, although he studied under William →Bowman and George →Critchett, he devoted much attention to general medicine and general surgery. Finally, in Paris, where his masters in ophthalmology were no less personages than →Sichel and →Desmarres, he found time to attend the clinics of Velpeau and Ricord.Returning to New York late in 1855, he entered on a career as general

practitioner, and soon was appointed surgeon general of the state. Three years later, he was appointed medical director of the New York Volunteer Hospital. In 1856 he married Mary Nash, daughter of Lora Nash, a New York merchant. In his later years Agnew devoted himself exclusively to diseases of the eye and ear.Dr. Agnew was a man of strongly marked and wholly natural executive ability. Hence it was that, first and foremost, he was a founder of institutions. He was one of four to start the *Union League Club* of New York City. He assisted, in 1864, in organizing the *School of Mines* of Columbia. In 1866, at the request of the entire faculty, he established an ophthalmic clinic in the *College of Physicians and Surgeons of New York*. Two years later he brought into existence the *Brooklyn Eye and Ear Hospital*, and, the following year, the *Manhattan Eye and Ear Hospital of New York*. He was also one of the founders of the *New York Ophthalmological Society*.In 1869 he was elected to the clinical professorship of diseases of the eye and ear in the *College of Physicians and Surgeons*-a position which he held till his death. Agnew's contributions to ophthalmic literature and his inventions are numerous and valuable. He devised, for example, an excellent operation for divergent strabismus, which he described in detail in the *Transactions of the American Ophthalmological Society,* 1886, p. 31, under the title, "*A Method of Operating for Divergent Squint*." His "*operation for thickened capsule*" is also an important procedure, often described today (1913) by European ophthalmologists even in their smaller manuals. American Encyclopedia of Ophthalmology, Vol.1,p.190-193

Agnew, D. Hayes (1818-1892) American surgeon and excellent ophthalmologist born in Nobleville (now Christiana) PA , . Agnew studied medicine with his father, a physician of considerable importance locally, entered in 1836 the Medical Department of the University of Pennsylvania, and in 1838 received his degree from that institution. In 1844 he entered commercial life, in which he was a dismal failure, and, in 1847, returned to the practice of medicine. Unrivalled as an operator, he was also an impressive teacher and a clear and forceful writer. "Brilliant" is hardly the word for any of the accomplishments of Dr.Agnew. Though all he did was interesting and though he possessed an extremely attractive personality, yet the salient characteristic of his performances in every .division of his work was thoroughness, solidity. His *magnum opus* was *"The Principles and Practice of Surgery"* in three volumes-which appeared from 1878 to 1883. Concerning this work Agnew's greatest (but sincere and outspokenly generous) rival, Samuel D. Gross, remarked to its author, "You have produced a great and noble work, one creditable alike to yourself, your profession, and your country." Ophthalmology received in this masterpiece of Agnew's, a clear and comprehensive treatment, one that attracted the favorable attention of all the ophthalmologists of the day. In addition to this memorable service in his chosen field, Agnew was undoubtedly one of the past masters of operative oculists. Few have ever performed an operation on an eye with better judgment, greater gentleness, or more extreme precision. He was one of the surgeons to the Wills Eye Hospital from 1866 to 1868. In the operating room Dr. Agnew wore, as a rule, a very old linen duster, buttoned close up in front, and, as a matter of course, very clean, but, even in front, very patchy, and ragged and disreputable looking behind. Former students of the great surgeon inform me that their memory of the man is inseparable from his "operating duster". Agnew came before the country prominently as one of the physicians in the case of President Garfield. American Encyclopedia of Ophthalmology, Vol.1,p.193-194; Albert

Aguilon, Francois d' (1566-7(?)-1617) French scientist and rector of a Jesuit college in Antwerp (Belgium). Assigned to organize the teaching of exact sciences for all of Belgium, he developed the project into a master treatise on optics. Aguilon invented the horopter and described its importance in explaining binocular vision. He wrote: *Opticorum libri sex, philosophis juxta ac mathematicis utiles*. Antwerpen 1613.The beautiful illustrations were drawn by Peter Paul Rubens. Albert

Agulto, Manuel B. (1947-) Filipino Ophthalmologist, Executive Director of the eye Referral Center and Vice chairman of the Glaucoma Research Foundation, Inc., Manila. He graduated from the University of the Philippines (UP), College of Medicine in 1973 with an M.D. degree. After completing ophthalmology residency at the UP-Philippines General Hospital, he studied in Boston, enrolled in postgraduate ophthalmology at Harvard Medical School (1979), trained as Glaucoma and Anterior Segment Disease Fellow at New England Glaucoma Research Foundation (1982-1983) and also at the

Institute of Clinical Ophthalmology, Kiryu, Japan (1987). He serves as University Researcher at the UP Institute of Ophthalmology, Vice-Chairman and clinical Associate Professor at the Department of Ophthalmology, UP-PGH Medical Center and also as the Chairman of the Eye Department of J.B. Lingad Memorial General Hospital (Central Luzon Regional Hospital). He works as President of the *Philippine Glaucoma Society* and also as member of the Editorial Board of the *Philippine Journal of Ophthalmology* and *Asian Journal of Ophthalmology*. He is a member of many national and international ophthalmological societies, and has received the Distinguished Service Award of the Asia-Pacific Academy of Ophthalmology, Merit Award of the Philippine Board of Ophthalmology and many other honors. He was past president of the UP Medical Alumni society (1998).(SM)

Ahmad, Mohammed Mukhtar (1937-) Pakistani Ophthalmologist, Director, Institute of Eye Diseases, Karachi. Received his primary & secondary education in Faisalabad, MBBS from Nishtar Medical College, Multan (1963), DO (England) in 1970, FRCS in 1972, FRC.Ophth (London) 1989. His career positions are Resident House Officer / Senior House Officer, England, Wales, Ireland (1964 to 1968), Registrar, Inverness Scotland 1968 to 1970, Registrar, Glasgow, Ophthalmic Institute(1970 to 1972), Senior Registrar Tennent's Institute of Ophthalmology, Glasgow University, Scotland (1972 to 1974), Locum Consultant, Ophthalmic Surgeon in Scotland (1974), In-charge Adamji Foundation Retina Clinic Karachi (1974 to 1976), private practice, Vitreo-Retina and General Ophthalmology, Karachi (1976 to 1980), invited as in-charge Ophthalmic Department Liaquat National Hospital, for establishment of department of Ophthalmology (1980 - 1990), Director, Institute of Eye Diseases, Karachi (1987) to date, President Ophthalmological Society of Pakistan , Karachi branch (1997 -98) , Chairman Ethical Committee Ophthalmological Society of Pakistan since 1996, member Medical Group for National Health Problems; advising the President of Pakistan (1995), member Board of Trustees, LRBT. Pakistan. The Trust has nine free eye hospitals in Pakistan including two state-of-the-art base hospitals in Karachi and Lahore, member Board of Directors. Metropolitan Rotary Club, Karachi (1996-97), honorary appointment by the College of Physicians & Surgeons of Pakistan as examiner for the fellowship (FCPS) and MCPS, several times, assessor for FCPS Dissertations, member Ophthalmological Society of United Kingdom, life member Ophthalmological Society of Pakistan , founder & life member of Pakistan Academy of Ophthalmology, member Pakistan Society of Neurologists, life member Society of Physicians of Pakistan, life member Society of Surgeons of Pakistan, life member Ida Rue Society for the Welfare of the Blind, Chairman Research Committee of Glaucoma Interest Group, Ophthalmolgical Society of Pakistan, Founder Vitreo- Retinal association, Ophthalmological Society of Pakistan "Fellow American Academy of Ophthalmology, Fellow Royal College of Ophthalmologists UK. His academic & research assignments are, attended 9 international conferences and presented 6 papers in such conferences, attended almost all national conferences, under the auspices of Ophthalmological Society of Pakistan and presented 37 papers in such conferences. His editorial assignments are Member Editorial Board of the *Journal of Ophthalmological Society of Pakistan*, founder member and executive managing Editor of the *Journal of the Pakistan Academy of Ophthalmology* JP AO, Specialist: *Journal of Medical Sciences*, *British Medical Journal*, Pakistan edition, Author of "*Code of Ethics for Ophthalmological Society of Pakistan*". He is a recipient of many awards e.g. FRCOphth, Gold Medal from Ophthalmological Society of Ceylon. On invitation to deliver state-of-the art lecture on Silicone Oil in complicated retinal detachment. August, 1989 Colombo Conference, Paul Haris Medal twice for outstanding service to humanity, Pride of Performance Gold Medal of the President of Pakistan 1996, Norval Christy Gold Medal of Ophthalmological Society of Pakistan 1997, Wania Memorial Lecture Gold Medal at Ophthalmological Society of Pakistan Conference 28th August 1999. He is involved in social work e.g. has participated in eye Camps in Sindh & Punjab, Involved in social welfare work through rotary International. His hobbies are Sport, Interest in Urdu Literature, Poetry in Particular, and Study in Divine Religions, Active member of Rotary International. (Address: Institute of Eye Diseases, 241/3/A, Block-2, Shahrah-e-Quaideen, P.E.C.H.S., Karachi, Pakistan. Phone: +92-4556460, +92-445561-62) (SM)

Goro Akagi

Akagi, Goro (1909-1999) Japanese Ophthalmologist, Professor Emeritus of Okayama University. He graduated from Okayama University in 1935, studied Ophthalmology under Prof. HATA Bunpei and received the degree Doctor of Medical Sciences in 1938. He was appointed the first Professor of Ophthalmology of Hiroshima University in 1948 and was promoted to the Professor and Chairman of the Department of Ophthalmology of Okayama University in 1951. He worked in this position until retirement in 1969: during his tenure he served as the President of Okayama University in 1964-1968. He served as the President of Kawasaki Medical School in 1970-1974. He gave special lectures "*Autoregulation of the intraocular pressure*" at the 60th Congress and "*Man and the Science*" at the76th Congress of the Japanese Ophthalmological Society: the Society granted him the Society's Award for his outstanding contributions. He is the author of "*Refraction of the Eye*", *Handbook of Ophthalmology of the Japanese Ophthalmological Society*, Vol. 8, 1955, and many other ophthalmologic books. He is an Emeritus Member of the Society. In recognition of his distinguished service, the Government conferred on him the Second Order of the Sacred Treasures in 1980.(SM)

Akagi, Yoshio (1946-) Japanese Ophthalmologist, Professor and Chairman of the Department of Ophthalmology, Fukui Medical University. He is a graduate of Kyoto Prefectural Medical University in the year 1972 and studied Ophthalmology at the University under Prof.→TANI Michiyuki. He received his degree Doctor of Medical Sciences from the University in 1979 (thesis: *Localization of the motor neurons innervating the extraocular muscles in the oculomotor nuclei of cat and rabbit using horseradish peroxidase*. J. Comp. Neurol. 181: 745, 1978). He is in the present position as above since 1993. He serves as a Councillor to the Japanese Ophthalmological Society (JOS), Japanese Society for Cataract Research (JSCR), Japanese Society of Ophthalmic Diabetology and Japanese Society for Ocular Pharmacology. He worked extensively on basic aspects of cataract and diabetes, and published 189 original papers, and some examples are "*Aldose reductase localization in retinal mural cells*. Invest. Ophthalmol. Vis. Sci. 24: 1516, 1983" and "*Localization of aldose reductase in the human eye*. Diabetes, 33: 562, 1984". For the excellence of his research, he received the National Eye Institute Scientific Director's Award (1984) and Award of the JSCR (1989). He is a member of the Association for Research in Vision and Ophthalmology (ARVO). (Department of Ophthalmology, Fukui Medical University, 23 Shimoaizuki Matuoka, Fukui 910-1193, Japan. phone: +81-7-7661-8400, fax: +81-7-7661-8131, e-mail: akagiy@fmsrsa.fukui-med.ac.jp)(SM)

Akiya, Shinobu (1932-) Japanese Ophthalmologist, former Professor of Ophthalmology, University of Occupational and Environmental Health, Kitakyushu. He was born as the 8th generation in an Ophthalmology family, and graduated from Keio University in 1958, studied Ophthalmology at the University under Prof. →UEMURA Misao: he received the degree Doctor of Medical Sciences in 1963 (thesis: *Electron microscopic studies of the retina*. J. Jpn. Ophthalmol. Soc. 65: 1793, 1961; ibid. 66: 304, 1962: ibid. 66: 1177, 1962; ibid. 68: 28, 1964). He was promoted to Lecturer of the University in 1966 and spent one year (1968-1969) as a Research Fellow at the Cornea Service and Research Laboratory of New York Hospital. He was made the Assistant Professor at Keio University in 1974 and then was invited to be the Professor and Chairman of the Department of Ophthalmology, University of Occupational and Environmental Health in 1988 and served until retirement in 1998. Currently, he is serving as Clinical Professor to Keio University in part time. He has served the Japanese Ophthalmological Society as a Councillor since1987. His many publications embrace "*Granular dystrophy of the cornea*. Arch. Ophthalmol. 84: 179, 1970", "*Morphological study on glycosaminoglycans in the developing human vitreous*. Ophthalmic Res. 16: 145, 1984" and " *Electron microscopic study of the developing human vitreous collagen fibrils. Ophthalmic Res*. 18: 199, 1986".(SM)

Alabaster, Edward Beric (1893-1971) British ophthalmologist. He joined the staff of the Birmingham Children's Hospital in 1922 as consultant ophthalmologist, succeeding Martin Young, and he served the hospital until 1946. He qualified in 1916 and at once volunteered and joined the R.A.M.C., attaining the rank of captain and seeing service in Serbia and Salonika in the first world war. On his return he decided to specialize in ophthalmology and took the Diploma at Oxford in 192 1. He was appointed surgeon to the Birmingham Eye Hospital in 1922. As consultant to the Children's Hospital he became

intensely interested in the treatment of squint and initiated the *first* hospital orthoptic department in Britain. Under his guidance and with Miss D. Jones as head teacher, the orthoptic training school earned a nation-wide reputation. He also devised his own original squint operation using a gold bar splint. He became an authority on this subject, which he took for the Mary Louisa Prentice Montgomery Lecture which he was invited to give in Dublin in 1937. He was also a founder member of the British Orthoptic Board and served for many years on its examining panel. He excelled as a surgeon and was the first in Birmingham to adopt the intracapsular method of cataract removal: his work was a revelation of delicacy and precision, and he was ever enthusiastic in the pursuit of new ideas and surgical techniques. He was elected F.R.C.S.Eng. in 1948. He was a prominent member of the Midland Ophthalmological Society, of which he was President from 1939 to 1943, and a regular attendee at the Oxford Ophthalmological Congress. Although ill-health forced him to relinquish his appointment at the Children's Hospital in 1946, he continued his service at the Eye Hospital until 1958, having served there for 36 years. Even after retirement he continued in consultation and in industrial clinics. BJO 1971,55:720

Al-Akfani, Sams ad-din Muh. B. Ibrahim b. Said as-Singari al-Misri b. (? – 1348) Egypto-Arabian ophthalmologist. He wrote "The Discovery of Filth in Eye-Diseases" which is partly scientific and partly superstitious in character. That book seems to have made but little impression either in the Eastern, or Western ophthalmologic world. American Encyclopedia of Ophthalmology, Vol.1,p.202-203.

Albert, Daniel M. (1936-) American Ophthalmologist, F.A. Davis Professor and Chair, and Lorenz E. Zimmerman Professor, Department of Ophthalmology and Visual Sciences, University of Wisconsin - Madison. Albert graduated from University of Pennsylvania School of Medicine with his M.D. degree granted in 1962, his M.A. received (Honorary) from Harvard Medical School (1976) and his MS in Health Administration from the University of Wisconsin - Madison (1997). He completed his Residency in Ophthalmology at the University of Pennsylvania Hospital (USPHS) (1963-1966), and further worked as a Clinical Associate in Ophthalmology, Surgeon USPHS and as a Research Fellow at the National Institute of Neurological Disease and Blindness, National Institute of Health (1966-1968), and as NIH Special Fellow in Ophthalmic Pathology, Armed Forces Institute of Pathology (1968-1969). He has served in the following academic positions, i.e. Instructor in Ophthalmology and Lecturer, Graduate Division of Medicine, University of Pennsylvania (1969-1968), Associate in Ophthalmology and Lecturer, Graduate Division of Medicine, University of Pennsylvania (1968-1969), Assistant Professor of Ophthalmology (1969-1970), Associate Professor of Ophthalmology (1970-1975), Professor of Ophthalmology, (1975-1976) of Yale University School of Medicine; Professor of Ophthalmology, Harvard Medical School (1976-1992), David G. Cogan Professor of Ophthalmology, Harvard Medical School (1983-1992) ; Frederick Allison Davis Professor of Ophthalmology and Chairman, University of Wisconsin, Madison Affiliation with Department of the History of Medicine as Professor (1992-). He is in the present position as above since 1992. His major interest in Ophthalmology is ocular and adnexal tumors: natural history, treatment, morphology, ultrastructure, and etiology and he published more than 500 original articles in reviewed professional journals, many books and monographs, and also contributed chapters to more than 84 books. Some examples of books are: 1.Albert DM, Scheie HG: *A History of Ophthalmology at the University of Pennsylvania*. Springfield, IL, CC Thomas, 1965; 2. Scheie HG, Albert DM: *Adler's Textbook of Ophthalmology*, 8th Edition; Philadelphia, WB Saunders, 1969; 3. Albert DM: *Jaeger's Atlas of Diseases of the Ocular Fundus*. Philadelphia, WB Saunders, 1972; 4. Hedges TR Jr, Frayer WB, Albert DM: Harold G. Scheie: *A Biographical Sketch and Selected Papers*. Philadelphia, WB Saunders, 1974; 5.Curth H, Curth HO, Urbach FF, Albert DM: Korting's *The Skin and Eye*. Philadelphia, WB Saunders, 1976; 6.Scheie HG, Albert DM: *Textbook of Ophthalmology*, 9th Edition. Philadelphia, WB Saunders, 1976; 7. Albert DM, Puliafito CA: *Foundations of Ophthalmic Pathology*. New York, Appleton-Century-Crofts, 1978; 8.Albert DM, Weichselbaum RR (Eds): *Ocular Tumors*. *International Ophthalmology Clinics*, Volume 20, Number 2. Boston, Little, Brown, 1980; 9. Albert DM (Ed): *Ophthalmology Alert*. Boston, Warren Gorham and Lamont, 1982; 10. Ni C, Albert DM (Eds): *Tumors of the*

Eyelid and Orbit: A Chinese-American Collaborative Study. *International Ophthalmology Clinics* Volume 22, Number l. Boston, Little, Brown, 1982; 11.Albert DM, Ni C (Eds*): Ocular Tumors and Ocular Pathology*: A Chinese-American Collaborative Study. *International Ophthalmology Clinics*, Volume 22, Number 3. Boston, Little, Brown, 1982; 12.Albert DM, Jakobiec FA (Eds): *Principles and Practice of Ophthalmology*: *Basic Science*. Philadelphia, WB Saunders, 1993; 13.Albert DM, Jakobiec FA (eds): *Principles and Practice of Ophthalmology*: *Clinical Practice* (5 vol.). Philadelphia, WB Saunders, 1993; 14. Albert DM, Henkind P: *Men of Vision*. Philadelphia, WB Saunders, 1995; 15. Albert DM (Ed): John Jeffries *Lectures on the Diseases of the Eye*, Oostende, Wayenborgh 1998; 16.Albert DM, Norton EWD, Hurtes R: *Source Book of Ophthalmology*. Boston, Blackwell Science, 1995; 17. Albert DM, Jakobiec FA: *Atlas of Clinical Ophthalmology*. Philadelphia, WB Saunders, 1996; 18.Albert DM, Edwards DD: *The History of Ophthalmology*. Cambridge, MA, Blackwell Science, 1996; 19. Albert DM: *Ophthalmic Surgery: Principles and Techniques*. Blackwell Science, 1998; 20. Albert DM: *The Best of Archives of Ophthalmology*. American Medical Association, 2000. To be published during 2001: Albert, DM (editor): *Managing Medicine: A guide for the Physician* (Blackwell) and Albert, DM: A Chronology of Ophthalmology (Pergamon). Based on his expertise, he has been invited to many Universities in the U.S and other Countries as well, and some samples are: Faculty of Lancaster Course in Ophthalmology (1972-1991), Associate Examiner, American Board of Ophthalmology (1974-), Lecturer in Dermatology, Yale University School of Medicine(1976-1985) Consultant in Ophthalmic Pathology, Brigham and Women's Hospital, Boston, Massachusetts(1976-1992), Consultant, National Institute for Occupational Safety and Health: Field Study of Ocular Neoplasms in Chemical Workers, Belle, West Virginia (1978, 1979), Visiting Professor, University of London and Visiting Scientist, Institute of Ophthalmology, London, England (1985), International Consultant, Israeli Center for Intraocular Tumors, Jerusalem, Israel (1989-), and visiting professor to University of Newcastle-on-Tyne(1974), Shanghai First Medical College (1980), University of Glasgow (1992), Universite Louis Pasteur (1992), Peking Union Medical College (1980), Xian Medical School (1980), University of Nagasaki (1996), King Khaled Eye Specialist Hospital and also to many U.S. Universities. He also has many editorial assignment and some examples are *Investigative Ophthalmology and Visual Science* (1974-1977), Ophthalmic Toxicology Section, *Journal of Environmental Pathology, Toxicology and Oncology* (1979-), *Survey of Ophthalmology* (1979-1994), Book Review Editor, *Archives of Ophthalmology* (1985-1994), Associate Editor, *Progress in Veterinary and Comparative Ophthalmology* (1991-1994), Associate Editor, *History of Ophthalmology* (Documenta Ophthalmologica (1991-), Editor, *History of Ophthalmology* (Documenta Ophthalmologica) (1994-) and Editor-in-Chief, *Archives of Ophthalmology* (1994-). He serves as an Officer for many professional societies that include American College of Physician Executives (1995-), American Ophthalmological Society Council Member (1998-),Verhoeff Society (1974-), Academia Internationalis Ophthalmologica (1982-1991), American Association of Ophthalmic Pathologists (1977-) and Ophthalmological Society of the United Kingdom (1985-). He is a recipient of many honor awards, and they are 1.William and Mary Greve Scholarship, Research to Prevent Blindness, Inc. (1978); 2. Friedenwald Award, Association for Research in Vision and Ophthalmology (1982) ; 3. Alcon Research Institute Award (1984); 4.Von Sallmann Prize, International Congress on Eye Research (1988): 5. Humboldt Research Award, Alexander von Humboldt Foundation (1989); 6.Mackenzie Lecturer, University of Glasgow (1992); 7. Doctor Honoris Causa, Université Louis Pasteur, Strasbourg, France (1992): 8. Zimmerman Medal, American Association of Ophthalmic Pathologists and the American Academy of Ophthalmology 1993); 9. American Academy of Ophthalmology, Edward Jackson Memorial Lecturer (1996); 10. Lighthouse Pisart Vision Award (1997); 11. King Khaled Memorial Lecturer, Riyadh, Saudi Arabia (1998); 12. W. Morton Grant Lecturer, New England Eye Center, Boston (1998); 13. George and Jean Tyner Lecturer, Texas Tech University(1998); 14. Arthur J. Bedell Lecturer, Wills Eye Hospital(1999); 15. Harold Gifford Lecturer, University of Nebraska (1999); 16. Scarborough Lecturer, Emory University School of Medicine, Atlanta (1999) (F.A. Davis Professor and Chair, and Lorenz E. Zimmerman Professor, Department of Ophthalmology and Visual Sciences, University of Wisconsin, F4/336 Clinical Science Center, 600 Highland Avenue Madison, WI 53792-3220; Phone: 1-608-263-9797; Fax: 1-608- 263-1466 ; e-mail: albert@eyesee.ophth.wisc.edu) (SM)

Alberti, Salomon (1540-1600) German anatomist, discoverer of the lachrymal sac and inventor of the Latin name for it. American Encyclopedia of Ophthalmology, Vol.1,p.204.

Albini, Giuseppe (1825-1911) Italian physician, born in Milan, who studied physiology in Pavia under Panizza and in Vienna under Ernst Brücke (1850). From 1860 he was professor of physiology and lecturer on ophthalmology at the University of Naples; he wrote numerous works on the physiology and pathology of the visual system.(Albert 7)

Albinus, Bernhard (1653-1721) This illustrious surgeon and body-physician to the first King of Prussia, as well as father of the still more famous Bernhard Siegfried →Albinus, was born at Dessau, Germany in 1653. He was, for a time, professor at Frankfurt a.d.0der, and, for 19 years at Leyden. He is remembered by ophthalmologists for a cataract needle, proposed, though not invented, by him. It was a highly elaborate affair, the operative extremity of which, though a needle, when introduced into the eye, became, on the pressure of an outside spring, a delicate pair of forceps. The instrument, seems never to have been actually employed by Albinus himself. American Encyclopedia of Ophthalmology, Vol.1,p.206.

Albinus, Bernhard Siegfried. (1697-1770) Son of Bernhard →Albinus. At the age of 5 he accompanied his father to Leyden, and, when only 24, succeeded him as professor of anatomy and surgery in the University at Leyden. He was a very patient investigator, teacher and operator. Albinus was a well known student and teacher of anatomy; in fact he has been called "The Reformer" of that subject. He is chiefly remembered by ophthalmologists because he was the *first* to furnish an illustration of congenital coloboma of the iris. American Encyclopedia of Ophthalmology, Vol.1,p.206.

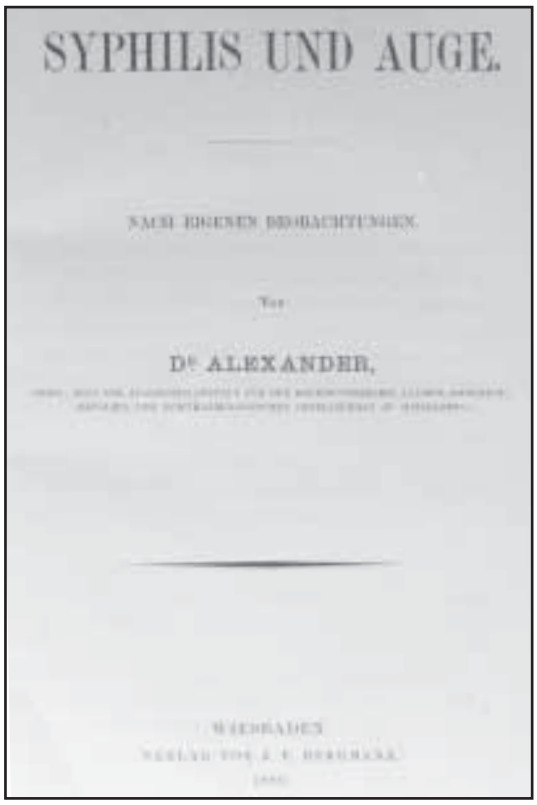
Albrecht, Johann Friedrich Ernst (1752-1814) German theater director, later a physician who wrote a great number of popular medical essays (partly anonymus) among which "*Der Augenarzt oder sichere hülfe für kranke Augen*" of which a second edition was published in Hamburg 1816.

Alessi, R. C. Salvatore, professor of ophthalmology at Naples in the 19th century. He wrote: "*Memoriali di ottalmologia ovvero pensieri ed osservazioni su svariati punti della scienza degli occhi*." Napoli 1843 and "*Della elmintiasi nelle sue relazioni colla oculistica ... con una lettera sulla compressione del tumore lagrimale*." Roma 1850.

Alexander de Spina (? – 1313) The *re-discoverer* of spectacles, a monk who dwelt in the Dominican cloister of St. Catherine at Pisa for many years. The following passages from the *Chronicle of the Cloister* show that he was not (as has sometimes been supposed) the first, but only the second, discoverer of "eyeglasses": "Brother Alexander de Spina, a good and modest person, understood how to make whatever he saw, or any restorative that he happened to hear about. Eyeglasses, which were first made by somebody who, however, would communicate nothing about them, he prepared by himself, and then communicated to others concerning them with a willing and joyful heart." Alexander, though not a physician, was, plainly enough, qualified by nature to be a good and true one. The second passage runs:, "Brother Alexander de Spina, of Pisa, could make with his hands whatever he would, and was wont to communicate his arts to others out of good-heartedness. As, at that time, somebody had first invented "peepers," (as the people called "eyeglasses"), by means of a certain beautiful, new and useful discovery, and no one would communicate the art of their preparation, then did this good man and artist, after he had seen, at once and without any teacher, proceed to learn it and he thenceforth taught it also to others, whoever wished to know. " For the sake of completeness, it ought to be added that the name of the "first" inventor of "eyeglasses" is to this day unknown. It should also be expressly stated that the view so commonly held, to the effect that spectacles were known to the ancients, is wholly erroneous. The commonly cited passage from Suetonius relating to Nero and his emerald has, in fact, nothing at all to do with spectacles; for Nero's emerald was a concave mirror, not lens of any sort. Equally fallacious are the conclusions which attribute the invention of spectacles to the Chinese. American Encyclopedia of Ophthalmology, Vol.1,p.219-220.

Alexander of Tralles (A. D. 525-605) A most distinguished physician of the Greek Middle Ages was born at Tralles, in Lydia. His father, Stephen, and one of his brothers, Dioscurus, were famous physicians. Other notable brothers were: Metrodorus, the

grammarian; Olympius, the jurist; and Anthemius, one of the architects of St. Sophia. Alexander studied medicine at first with his father, then with the father of the Indian traveller, Cosmas, and afterwards with many another well known instructor. For the purpose of rendering more complete his medical education, he travelled in Cyrene, Spain, Gaul, Italy and Greece. Then he settled in Rome where he lived until his death. Some years before his death, how ever, he became unable to practice, and, from that time forth, devoted himself exclusively to the composition of his immortal *Twelve Books on Medicine*. In this work, which, for the most part, must be conceded to be only a compilation, the author affords, none the less, evidence of great powers of observation and original reflection. Over and over again, Alexander warns his contemporaries against the blind acceptance of authority and admonition greatly, needed in that day, and one which its giver took thoroughly to heart himself. He was an excellent diagnostician, and gave much time to inspection, palpation, percussion, etc. He would seem to have made a number of dissections-a remarkable fact for the time. He mentions rhubarb, and is said to be the first in history to have done so. (The "rhubarb" mentioned by Dioscorides-A. D. 40-90 was only the garden variety, or pie-plant.) Great as was the Trallean Alexander in general medicine, he was of less importance to ophthalmology. The ophthalmic portion of his Twelve Books is, in fact, little more than a collection of prescriptions, with which the compiler would seem to have had but little experience. American Encyclopedia of Ophthalmology, Vol.1,p.220-221


SYPHILIS UND AUGE.

NACH EIGENEN BEOBACHTUNGEN.

Von

Dr. ALEXANDER.

WIESBADEN

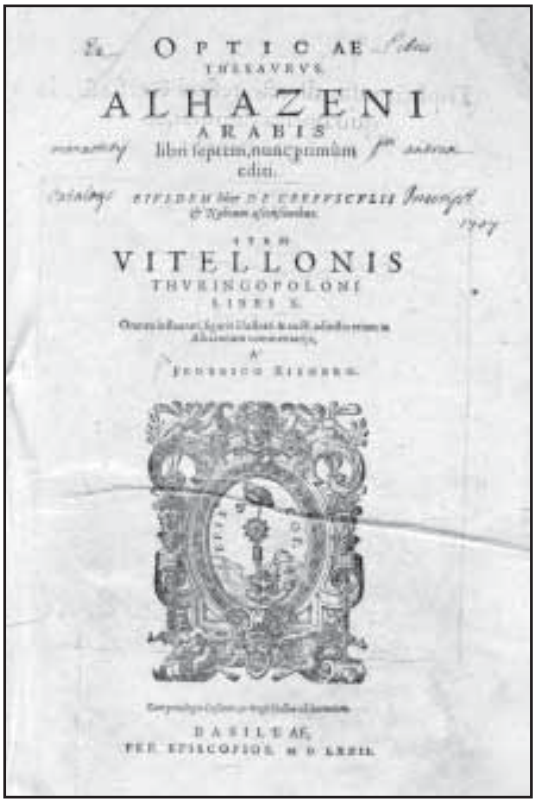
Alexander´s book

Alexander, Benedictus. An excellent plastic surgeon, ophthalmic and general, who flourished in the latter half of the 15th century (→ Benedetti).American Encyclopedia of Ophthalmology,Vol. 1,p.219.

Alexander, Louis (?-?) German ophthalmologist. He wrote two books about diseases of the eyes in relation to syphilis: „*Neue Erfahrungen über luetische Augenerkrankungen*." Wiesbaden 1895 and *Syphilis und Auge* (2 vols.) Wiesbaden 1888-1889. Albert

Algarotti, Conte Francesco (1712-1764) Italian philosopher and critic of Venice. He was a friend of Frederick the Great and Voltaire. He wrote: *Il Newtonianismo per le dame, ovvero dialoghi sopra la luce e i colori*. Napoli 1737. This first successful and influential popularization of Newtonian optics is presented in the form of six dialogues.(Followed 1738 by Voltaire´s *Elemens de la Philosophie de Neuton*)

Alhazen (Ibn al-Haitham) (965-1039) The full form is, ABu ALI MUHAMMAD b. AL-HASAN IBN A HAITAM AL-BAsti. He is not to be confused either with the physician, Abd ar-Rahman b. Ishaq b. al-Haitam, who came later, or with another Alhazen-he who, in the 10th century, translated, Ptolemy's *Almagest.* This personage was not a doctor, but a mathematician, whose great importance to ophthalmology arises from his services in the field of physiologic optics. He was born in Bassora (Basra on Persian gulf) and died in Cairo. The Fatimid Khalif of Egypt, Al-Hakim, who had heard of his genius and great learning, summoned Alhazen to Egypt to see if he could regulate the flow of the Nile river. Although this scheme failed, he lived in Egypt the rest of his life under the patronage of Al-Hakim (on one occasion feigning madness to get his patron off his back). He wrote: 1) *The Book of Optics (Kitab al Manazir* or *De aspectibus)* 2) *On the Paraboloidal Burning Mirror (De speculis comburentibus)* 3) *On the Spherical Burning Mirror* 4) *On the Burning Sphere* 5) *On Light* 6) *On the Rainbow and Halo* 7) *On the Nature of Shadows* 8) *On the Form of the Eclipse* (concerning radiation through apertures) 9) *On the Light of the Moon* 10) *On the Light of the Stars* and many other books that have been lost but are known by their titles to have been concerned with Medicine and Ophthalmology. It was Alhazen who convinced the world that rays did not emanate from the eye to contribute to the process of vision. Ptolemy, some years before had recognized that light can be bent when it passes through glass but no rules of refraction had been formulated. Alhazen, seeing that light did indeed influence the eye, producing light adaptation and afterimages, argued that it was the incoming rays that somehow reproduced within the eye the form of distant objects. See also: *Peri optices id*


OPTICAE
THESAVRVS
ALHAZENI
ARABIS
libri septem, nunc primùm
editi.
ITEM
VITELLONIS
THVRINGOPOLONI
LIBRI X.
BASILEAE,
PER EPISCOPIVS. M. D. LXXII.

Alhazen´s famous book.

est de natura, ratione, et projectione radiorum visus luminum colorum atque formarum Nuremberg 1535; *Opticae thesaurus* Basileae 1572. American Encyclopedia of Ophthalmology, vol.1,p. 222-223.Thompson. Albert

Ali Abbas (? – 994) His full name is ALi IBN AL-ABBAS AI-MAJUS i. e., the magician, or fire-worshipper; he was also called HALY ABBAS. Distinguished Persian physician of the Arabic period. He was body-physician to the Emir, Adhad ed-Dauda. His chief work is *al-Maliki, Liber Regis,* or *The Kingly Book,* so called because of its dedication to the above-mentioned Emir. This work is divided into two -a theoretical and a practical division, each of ten books. He declares his intention, in the composition of the work, to have produced something which should constitute a kind of golden mean between the extremely prolix and ill-digested *Continens* of →Rhazes, on the one hand, and the over-condensed and much too highly systematized "*Liber ad Mansorem*" of the same distinguished writer, on the other. The result is decidedly satisfactory, for all historians of ophthalmology agree that The Kingly Book is a model of completeness combined with conciseness. In *The Kingly Book* diseases of the eye are first presented, in the 13th chapter of the 10th book of the lst part. The subjects are all discussed, as one might readily suppose, in exact anatomical order: Diseases of the Conjunctiva; Diseases of the Cornea; Diseases of the Ciliary Region; Diseases which arise between the Pupil and the Lens [in this department, following the fashion of the time, he included cataract] ; Diseases of the Lids; Diseases of the *Corner of the Eye* ; Diseases of the Optic Nerve; Diseases of the Other Nerves and of the *Muscles which Move the Eye and the Lid* ; In the second (the practical) division, he speaks for the most part of the cataract operation, as it was practised in his day. American Encyclopedia of Ophthalmology, vol.1, p.223.

Ali ben Isa (c.940-1010)[or, ALi IBN ISA, AL-KAHHAL] He was also called Jesu HALY. This famous writer, the most important of the Arabian ophthalmologists, flourished in Bagdad in the first half of the eleventh century. His Memorandum *Book for Eye-Doctors,* was the earliest specialist work on ophthalmology which has been preserved in its entirety. It stood, furthermore, as the standard text-book on its subject not only in Islam but also, throughout Christendom for several centuries. We may add that even today, it is in use among the Arabs. Soon after its first appearance it was translated into Latin and Hebrew. The only complete translation, however, into a modern European tongue is that of →Hirschberg and Lippert : *Ali ben Isa, Errinerungsbuch für Augenärzte, aus arabischen Handschriften übersetzt und erläutert*. Leipzig, 1904. The work is divided into three books, the subjects of which are a follows: (I) *The Anatomy and Physiology of the Eye,* (II) *The Diseases of the Eye which are Recognizable by the Senses,* (III) *The Diseases of the Eye which are not Recognizable by the Senses.* American Encyclopedia of Ophthalmology, vol.1,p.224-239.Albert

Ali, Syed Imtiaz (1951-) Pakistani Ophthalmologist, Professor of Ophthalmology, Rawalpindi Medical College. Obtained MBBS in 1975, DO (Dublin) 1982, FRCS (Glasgow) 1985, FRC Ophth (Eng) 1989. His career positions are House Officer, Mayo Hospital, Lahore, Pakistan-1975 to 1976, Registrar Holy Family Hospital, Rawalpindi-1977 to 1979, Medical Officer, Holy Family Hospital-1979, Senior House Officer, Pinderfields General Hospital Wakefield 1979 to 1980 (UK), Senior House Officer, Ophthalmology, Kent County Ophthalmic and Aural Hospital, Maidstone (Kent) 17th Nov. 1980 to 5th May 1982 (UK), Senior House Officer, Ophthalmology, Royal Halifax Infirmary , 6th May 1982 to 17th Nov. 1982 (UK) , Registrar in Ophthalmology, Royal Halifax Infirmary, 18th Nov. 1982 to 24th Nov. 1984 (UK) , Registrar in Ophthalmology, Salisbury General Infirmary, 1-1-85 to 2-2-85; 9-4-85 to 19-4-85; 1-7-85 to 25-7-85 (UK), Registrar in Ophthalmology, Victoria Eye Hospital Herefordshire, 22-4-85 to 6-5-85; 5-8-85 to 21-8-85 (UK), Associate Eye Specialist, Southend Hospital , West Cliff on Sea, 2nd Sept. 1985 to 25th Nov. 1985(UK) ,Registrar in Ophthalmology Pinderfields Hospital Wakefield, 11th Dec. 1985 to 14th Sep. 1986 (UK). His current appointments is Professor, Ophthalmology, Rawalpindi Medical College and visiting eye surgeon Rawalpindi General

Hospital, from 15th July to date. He has served as Associate Professor, Ophthalmology, Rawalpindi Medical College and visiting Eye Surgeon Rawalpindi General Hospital since 3rd Nov. 1994 to 14th July, Assistant Professor, Ophthalmology, Rawalpindi Medical College and visiting eye surgeon Rawalpindi General Hospital 30th Aug. 1986 to 2nd Nov. 1994. His editorial assignments are member editorial board "*Asian Journal of Ophthalmology*", Published 8 articles in national and international journals. His academic & research assignments are attending 5 workshops at the College of Physicians and Surgeons Pakistan, attending 4 abroad and 8 local meetings and presenting 4 papers in such meetings. (Address: House # *F-882/11,* "Satellite Town, Deputy Feroze Lane, Behind Holy Family Hospital, Rawalpindi Pakistan post code 46300. Phone: +92-413464, Fax: +92-413991) (SM)

Chowdhury Shaheed Alim

Alim, Chowdhury Shaheed (1930–1971) Bangladesh Ophthalmologist. Alim was born in the village Khairpur of district Mymensingh. He was matriculated in the year 1945 from Kishorganj High School and passed I.S.C Examination from Islamia College. He entered the Dhaka Medical College in the same year and started active part in all the progressive student movements of the country during those days. In 1948 he was one of the main organizers of Bengali Language Movement and was taken into custody by the then Pakistan Government. At that time he was the Vice-President of the Dhaka Medical College Students Union. Dr. Alim Chowdhury became a Medical graduate and went to UK for higher studies in the year 1958. During this period he was the Joint Secretary of the then East Pakistan Medical Association and also the Editor of its Journal. He also edited two other literary papers namely "*Jatrik*" and "*Khap Chhara*". In London he was one of the convenors and editors of London based Bangla Academy. He obtained his Diploma in Ophthalmology from London and worked at St. James Hospital and the Royal Eye and Ear Hospital of London. In 1963 Dr. Alim Chowdhury came back home and joined the Eye Department of Kumudini Hospital at Mirzapur as Chief Ophthalmic Surgeon. Subsequently he worked as Associate Professor of Ophthalmology in the Institute of Postgraduate Medicine and Research (PG Hospital), Dhaka Medical College and Sir Salimullah Medical College. He was also the Secretary General of the East Pakistan Ophthalmological Society. Dr. Chowdhury was associated with various social and voluntary organizations doing selfless social works for the poor and the needy. During the liberation war in the year 1971 he helped the freedom fighters by way of money, medicines and other helps taking serious risk of life. On 15th December, 1971, this noble doctor, a great human being was kidnapped and brutally murdered by the "Al-Badars" the fanatic collaborators of the then Pakistan Army. Shaheed Alim Chowdhury left behind his wife and two lovely daughters Neepa and Shampa to mourn his death. Shaheed Dr. Alim Chowdhury is immortal and always with the people of Bangladesh. The Ophthalmological Society of Bangladesh created the Alim Memorial Gold Medal and Lectureship for the memory of this National Hero. (By M. A. Matin)

Alió, Jorge L. (1953-) Spanish ophthalmologist. Alió received his Medical Doctor degree from the Complutense University (Madrid) and Graduated with honor "*Cum Laude*". He received a PhD. degree at the same University and received Awards from the Spanish Ophthalmological Society and from the Royal Academy of Medicine for his Doctorate Thesis. His residency in Ophthalmology was achieved at the MIR national program in the Service of Ophthalmology of the Conception Clinic (*Jiménez Díaz Foundation*), Madrid. He is a Research Fellow of the Ministry of Education and Science. His academic career was initiated as an assistant professor of Ophthalmology, Autonomy University in Madrid and followed by the same position at the University of Salamanca. He became Full Professor of Ophthalmology at the University in Alicante in 1982, and Professor and Chairman of Ophthalmology of the University in Alicante in 1986, Director of the Division of Ophthalmology of this University in 1987 and then Director of the Department of Surgery of the University of Alicante from 1989 to 1993 . Alió is the Founder and Director of the Center to Prevent Blindness of Alicante (O.N.C.E./University of Alicante Foundation)(1987) and of the Laboratory of Ocular Inflammation (1990), Founder and Medical Director of the Institute of Ophthalmology in Alicante (1987), and Fundacion Jorge Alio (1996). His research career has been devoted to the study of *Ocular Neovascularization*, *Ocular Inflammation*, *Surgery of Cataract and Refractive Surgery*. He has directed 41 PhD. projects to date, all of them qualified as "Cum Laude". Two of

them have received the *National Chibret Doctorate Award* and four the *Extraordinary Award* of the University of Alicante. He is author of 548 communications and presentations to ophthalmic meetings, 310 original articles published in scientific journals, 35 books and 24 book chapters. Chairman of the International Ocular Inflammation Society (1992-1998) and then General Secretary of the same Society (1998). He has a regular membership of 25 scientific societies and participates, in some of them as part of its organisational structure. He has received 27 Awards for his clinical and experimental research activity, 5 of them are international. Aliós is Elected Member of the Board of the European Society of Cataract and Refractive Surgery (1999). He has been appointed as Professor of Clinical Ophthalmology (Full Professor) at Louisiana State University, Medical School in January 2000. Address: Instituto Oftalmologico de Alicante, Avda. de Denia, 111, E-03015 Alicante, Spain Tel. : +34 96 515.00.25
Fax: +34 96-515.15.01 e-mail: jlalio@oftalio.com

Alison, William Pulteney (1790-1859) Scottish ophthalmologist of Edinburgh. He received his M.D. at the University of Edinburgh (1811), and in 1822 was there appointed professor of physiology. The idea of a life force, distinct from the physical forces of what he called "dead matter," was one he attempted to apply to physiological studies. He is the author of "*On single and correct vision, by means of double and inverted images on the retinae*" Edinburgh 1836.Albert

Allbutt, Thomas (Sir Thomas) Clifford (1836-1925) English physician and medical historian who was born in Dewsbury, Yorkshire and who received an M.A. at Cambridge University in 1860. He studied medicine at St. George's Hospital, London (receiving his M.B., in 1861). He practiced and lectured in Leeds until 1889; from 1892 he was professor of medicine at Cambridge. Allbutt helped introduce the use of the ophthalmoscope into general medical practice. He wrote: "*On the use of the ophthalmoscope in diseases of the nervous system and of the kidneys*." London and New York: 1871. Although not an ophthalmologist, Allbutt belongs in IBBO because of his interest in medical ophthalmology – particularly in the contribution of the ophthalmoscope to internal medicine, as expressed in his 1871 book - a contribution that was strongly underlined by Eduard Jaeger in 1876. (*see* "*Life of Sir Clifford Allbutt*" by Humphry D. Rolleston. London, Macmillan, 1929, and a fairly long biographical sketch by Keynes, M. & Butterfield, J. in the *Journal of Medical Biography*, 1993; 1: 67-75) Thompson. Albert

Allen, Grant (1848-1899) British philosopher educated at Birmingham and in Oxford, who became professor of mental and moral philosophy in Jamaica. He returned to England in 1876 and adopted literature as his profession. He wrote 1877 "*Physiological Aesthetics*" and 1879 "*The Colour-Sense; Its Origin and Development*" which had a German translation in 1880. Albert

Allen, Henry Freeman (1916-1993) American ophthalmologist. He represented the sixth generation of Warren family doctors, who were responsible in part for the founding of the Harvard Medical School and the Massachusetts General Hospital; the author Harriet Beecher Stowe was also Dr. Allen's great-grandmother. He graduated magna cum laude from Harvard College and received his M.D. degree from the Harvard Medical School in 1943. He spent all of his professional life in Boston, where he trained at the Massachusetts General Hospital and the Massachusetts Eye and Ear Infirmary, and became one of the pre-eminent leaders in ophthalmic microbiology during his academic career. In 1968 he became the Henry Willard Williams Professor of Ophthalmology at Harvard Medical School, chief of Ophthalmology at the Infirmary, and chairman of the Department of Ophthalmology at the Harvard Medical School. For ten years (1966-1976) he guided the *Archives of Ophthalmology* as editor-in-chief, and for 25 years he was the director of the Lancaster Course in Ophthalmology held annually at Colby College, Waterville, Maine. He was a member of the American Ophthalmological Society, chairman of the American Medical Association Section of Ophthalmology, and president of the American Association of Ophthalmology. He received the Lucien Howe Medal of the Section of Ophthalmology of the American Medical Association. For his philanthropic medical work among the Indians of South Dakota, he was adopted by the Ogalalla Sioux Tribal Council in 1965 and given the name of Eagle Eye. AJO 1994,118:133-134.

Allen, Timothy Field (1837-1902) American physician, born in Westminster, Vermont. He received his M.D. at the University of the City of New York (now N.Y.U.) in 1861. He became the first professor of materia medica and therapeutics at New York Homeopathic Medical College and was Dean there from 1882 to 1893, as well as being a surgeon at New York Ophthalmic Hospital. He co-authored with George S.→Norton ″*Ophthalmic therapeutics*.″ New York and Philadelphia 1876.Albert

Alm, Albert (1941-) Swedish ophthalmologist. He qualified in medicine at Uppsala University in 1969. He studied for his thesis with Anders Bill at the Department of Pharmacology in Uppsala and was awarded the Doctorate of Science in 1972 (thesis: *Blood flow and oxygen extraction in the cat uvea at normal and high intraocular pressures*. Acta Physiol Scand 1970. 80:19-28; *The oxygen supply to the retina*, I. *Effects of changes in intraocular and arterial blood pressures, and in arterial pO2 and pCO2 on the oxygen tension in the vitreous body of the cat*. Acta Physiol Scand 1972. 84:261-274.; *The oxygen supply to the retina*, II. *Effects of high intraocular pressure and of increased arterial carbon dioxide tension on uveal and retinal blood flow in cats. A study with radioactively labelled microspheres including flow determinations in brain and some other tissues*. Acta Physiol Scand 1972. 84:306-319.; *Effects of norepinephrine, angiotensin, dihydroergotamine, papaverine, isoproterenol, histamine, nicotinic acid and xanthinol nicotinate on retinal oxygen tension in cats*. Acta Ophthalmol 1972. 50:707-719). He started clinical training in Ophthalmology in Uppsala in 1973 and he became Professor and Chairman of the Department of Uppsala. His research has been focused on the physiology and pharmacology of ocular blood flow, on transport through the blood-retinal barrier, and on the pharmacology of aqueous humor dynamics. Much of his clinical research has been directed towards an evaluation of prostaglandin analogues for treatment of glaucoma. He has published more than 100 original articles and contributed chapters to 6 books. For the excellence of his works, he received the Alcon Research Institute's Award in 1994. Some of his recent publications are ″*Ocular circulation*. in (ed.) Hart Jr. WM. Adler's *Physiology of the eye, Clinical Application*. 1992″, ″*Latanoprost and physostigmine have mostly additive ocular hypotensive effects in human eyes*. Arch Ophthalmol. 1997;115:857-861″ and ″*Retinal mean transit time determined with an Impulse-Response analysis from video fluorescein angiograms*. Acta Ophthalmol. 1997; 75:532-536″. He is on the editorial board of *Acta Ophthalmologica*, (1984 -), *Journal of Glaucoma* (1995-), *Investigative Ophthalmology & Visual Science* (1995-), *Experimental Eye Research* (1995-), *British Journal of Ophthalmology* (1998-) and *European Journal of Ophthalmology* (1998-). He served as the Vice-Chairman to the Swedish Ophthalmological Society (1990-1992) and is a member of many International Societies. He has been elected Vice President (Europe) for the International Society for Eye Research for the period January 1, 2000 to December 31, 2003. Due to his expertise, he has been an invited speaker in many International Meetings.(Department of Ophthalmology, University of Uppsala, Uppsala, Sweden, phone: +46-18-66 51 36 fax: +46-18-50-48 57, e-mail: albert.alm@nc.uas.lul.se) (SM)

Al-Muwaffiq b. Saua al-Israili A jewish physician, principal physician to Saladdin, concerning whom Usaibia relates that he was ″renowned for the sureness of his art and his superior knowledge in medical science, including ophthalmology and surgery. American Encyclopedia of Ophthalmology, vol.1,p.248.

Alpern, Mathew (1921-1996) American scientist, a Member of the National Academy of Sciences, and a leading vision scientist for almost 50 years. Alpern started his academic career at Pacific University, Forest Grove, Ore, in 1951 after earning a degree in optometry from Northern Illinois University in DeKalb; a degree in engineering from the University of Florida in Gainesville; and a PhD in physiologic optics from Ohio State University in Columbus. In 1955, he came to the University of Michigan, Ann Arbor, where he was professor of physiologic optics in the Departments of Ophthalmology and Physiology and professor of psychology, taking emeritus status in 1991. He was active in his laboratory until his final days. Alpern is best known for key studies on rod and cone photopigments and mechanism of normal and anomalous color vision. He also published key works in visual psychophysiology related to eye movements, pupillary light reactivity, astigmatism, and many other areas. He received the Friedenwald Award of the Association for Research in Vision and Ophthalmology in 1974, the Tillyer Medal of the Optical

Society of America in 1984 , the Prentice Medal of the American Academy of Optometry in 1988, and an honorary doctorate from the State University of New York in New York City. He was elected to the National Academy of Sciences in 1991. Arch Ophthalmol 1996,114:1161

Alphonse de Grand Boulogne (?- ?) French ophthalmologist who wrote « *Mémoire sur deux instruments nouveaux destinés à l'extraction et à l'abaissement de la cataracte*.» Marseilles 1843, in which he describes the modifications and applications of the keratome and the couching needle for extraction and depression of cataracts. Albert

Alpini, Prosper (1553-1617) Italian physician who received his M.D. at the University of Padua in 1578. As physician to Giorgio Emo, Venetian consul to Cairo, he spent three years in Egypt. He became later professor of botany at Padua, and wrote a history of Egyptian medicine and therapeutics and other uses of plants he had studied in Egypt: "*De Medicina Aegyptiorum*" Venetiis 1591. He is also the author of "*De medicina methodica libri tredecim*" and of "*De Praesagienda.Vita et Morte Aegrotantium*" Venetiis 1601. Albert

Alpinus *see* **Alpini**

Al-Qaisi, Qadi Fath ad-din Abul Abbas Ahmad b. al-qadi Gamal ad-din kbu Amr Utman. One of the latest and most famous of Egypto-Arabian ophthalmologists. His single best known work, entitled *"Concerning the Result of Reflection about the Treatment of Ocular Diseases,* still extant, is simple, clear, and practical, but not to be compared for thoroughness with the works of such earlier Arabian writers as **Ammar** and **Ali ben Isa**. American Encyclopedia of Ophthalmology, vol.1,p.275.

Al-Qasim b. Halifa. The father of the much more famous Arabian Ophthalmologist, →Usaibia, he was himself well known as an oculist in Damascus about the year 1200. American Encyclopedia of Ophthalmology, vol.1,p.275.

Alquié, Alexis Jacques (1812-1864) French surgeon born at Perpignan, France. He received his medical degree, despite ill health and many other hardships, at the University of Montpellier in 1838 and, in 1851, was appointed to the Chair of clinical surgery in the same institution. The most important of his writings is the *Traité de Chirurgie Conservatrice et Moyens de réstreindre I'Utilité des Opérations,* which appeared at Montpellier in 1850, and in which, as a representative of the French conservative school, he strongly opposed the extirpation of the lachrymal gland for the relief of otherwise incurable epiphora and the section of ocular muscles in myopia. American Encyclopedia of Ophthalmology, vol.1,p.275-276.

Alston, John A Scot , treasurer of the Glasgow Blind Asylum who, about 1834, invented a form of raised Roman type for use by the blind. American Encyclopedia of Ophthalmology, vol.1,p.276.

Alt, Gustav Adolf Friedrich Wilhelm (1851-1920) American ophthalmologist, a copious contributor to the literature of ophthalmology, and founder in 1883 of the first ophthalmologic journal published west of New York City. Alt, was born at Mannheim, grand duchy of Baden, Germany. He commenced the study of medicine in 1869, but, his father dying in 1870 and with the Franco-Prussian war breaking out, he enlisted in the 2d regiment of Baden grenadiers. After participating in eleven battles, he returned to the study of medicine at Heidelberg in 1871. In 1872 he migrated to Strassbourg University, but in the following year, returned to Heidelberg, where he received his medical degree with honors, in March, 1875. Having completed his term of military service in the medical department of the 47th infantry, he moved, in September, 1875 to America. For almost two years he was first assistant to Dr. Herman→Knapp, in the New York Ophthalmic and Aural Institute. A part of this time he lectured on the normal and pathologic histology of the human eye. In 1879 he removed to Toronto, Ont., where upon examination, he became a member of the College of Physicians and Surgeons of Ontario. He was also appointed lecturer on ophthalmology and otology in the Trinity Medical College. In 1879 he moved to St. Louis, Mo. He was author, in St. Louis, of several volumes on the eye, and also of valued articles on ophthalmology which number into the hundreds. In 1883 he founded a journal, and, until its merger in 1918 with the *American*

Journal of Ophthalmology continued to edit that journal. He was also, until his death, a member of the Editorial Staff of this journal. He was a member of the St. Louis Medical Society, the Missouri Medical Association, and the American Ophthalmological and American Otological Societies. He was one of the founders of the American Academy of 0phthalmology and Otolaryngology. Shortly after moving to St. Louis he was made Professor of Ophthalmology in the Beaumont Hospital Medical College, and later (1901-03) held the same post in the St. Louis University Medical School, and the Marion Sims Beaumont School of Medicine. About 1911 he left the last-named school for the Washington University Medical School, which made him Professor Emeritus in 1917.Alt wrote: "*Compendium der Normalen und Pathologischen Histologie des Auges*" Wiesbaden: J.F. Bergmann, 1880. American edition in New York also in 1880: "*Lectures on the human eye in its normal and pathological conditions*." ; "*A treatise on ophthalmology for the general practitioner*." Chicago 1884. AJO,3:778-779; Albert

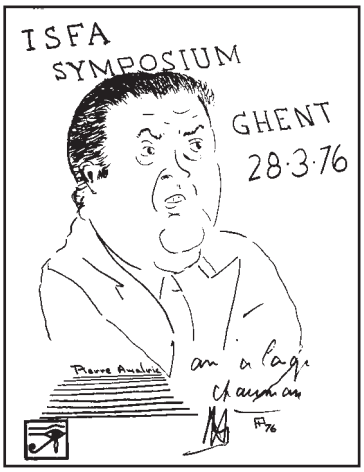
Althof, Herman (1835-1877) German-American ophthalmologist, born in Horn, Germany. He went to America three times. His first visit took place in 1847, when, with his father, he visited his brother, a resident of New York City. Returning to Germany, Althof first completed his academic education, after which he began his medical studies, at Würzburg. Continuing these, at Zurich, Vienna, and Prague he received his medical degree at Berlin in 1857. In the Prussian capital young Althof, attracted the favorable attention of Alfred →Graefe, who offered him a position as one of his assistants. Refusing this position, however, Althof proceeded to Paris, where he studied ophthalmology exclusively and was a favorite of →Desmarres. In 1858 he went again to America, practicing as an ophthalmologist in New York City. At the end of two years, he returned to Europe, staying for a time with Heinrich Müller, in Würzburg, and, later, with Graefe again, in Berlin. Returning, once more, in 1861, to New York, he became connected with the German Dispensary, the German Hospital, and the New York Eye and Ear Infirmary.He was one of the founders of the New York Ophthalmological Society and of the American Ophthalmological Society, and once the president of the former association. His writings, some in English, some in German are few but important. Among the latter were a number "*Klinische Notizen*" *(Graefe's Archiv,* Bd. viii, Abthl. l.). Among former were "*Canthoplasty: a Clinical Study* "*(Trans. of the Am. Soc.*, vol. II, part 2.). American Encyclopedia of Ophthalmology, vol.1,p.278.

Alvarado, Emilio (1853-1916) Spanish ophthalmologist born at Burgos.He pursued his studies at Valladolid where his father was in practice. He enlisted in the French army in 1870 and was taken prisoner at the battle of Orleans. After completing his medical studies he started practice at Burgos, but at his father´s death moved to Valladolid. He spent some time in Paris in 1880 with Louis→de Wecker and Xavier→Galezowski and from there made his name famous by his many contributions to ophthalmological journals. Alvaredo was particularly interested in combating ophthalmia neonatorum. The Ophthalmoscope, 1916,p.629.

Alvaro, Moacyr Eyck Marquis da Silva da Cunha e Fernandes (1899-1959) Brazilian ophthalmologist, born in Santos, the seaport of Sao Paulo, Brazil. His father was a prominent ophthalmologist and encouraged his son in his future career. After completing his medical course at the University of Rio de Janeiro in 1922, Alvaro began his specialty training at the University of Vienna and completed it with work as an assistant in the Polyclinic of Berlin. On returning to Brazil in 1926, Alvaro established a successful practice in Sao Paulo. About this time, societies of ophthalmology were organized in Sao Paulo and Rio de Janeiro. He became an enthusiastic member and was able to organize the first Brazilian Congress of Ophthalmology in Sao Paulo in 1935. The meeting was so successful that the congresses became biennial affairs and were attended by many foreign as well as Brazilian ophthalmologists. Following a successful campaign against ophthalmia neonatorum in the immediate area, Alvaro was able to interest the medical profession of Brazil in a definite program for the prevention of blindness. This activity led him to establish the first glaucoma clinic in South America. He also developed an orthoptic center in Sao Paulo. In 1937, Alvaro, with a group of associates, established the Ophthalmological Studies Center in connection with the Paulista School of Medicine, where he was professor of ophthalmology. The classes were limited to 80 postgraduate students annually and became extremely popular in South America. While attending the

International Congress of Ophthalmology in Cairo, Alvaro with the late Harry→Gradle of Chicago and Conrad→Berens of New York, developed the original plans for the organization of the Pan-American Association of Ophthalmology. During the meeting of the American Academy of Ophthalmology and Otolaryngology in Cleveland, Ohio, in 1940, the first meeting was held and Alvaro was elected secretary for South America. He was given the task of developing the society in the southern countries, which he accomplished with great efficiency. About this time, Alvaro made a survey of eye injuries in Brazilian industry and became so interested in efficiency in management that he joined and later became president of I.D.O.R.T., the business efficiency organization of Brazil. Alvaro suffered a severe cerebral hemorrhage in Europe in the spring of 1955. His right side was affected and as soon as he was able he came to New York for rehabilitation treatment. He returned to his home in the fall and resumed his activities with his usual vigor and interest. At this time, Dr. Alvaro was president of the Pan-American Association of Ophthalmology and vitally concerned with the 5th congress, which was held in Santiago, Chile, in 1956, and was most successful. He was rewarded for his efforts by his election to executive director at that meeting. Following the Chilean congress, Alvaro arranged many successful lecture tours in South American countries for prominent ophthalmologists of the United States and Europe. As executive director, Alvaro stimulated more than 100 South American ophthalmologists and their families to attend the successful Vth interim congress held in New York in 1957. He was the moving spirit behind the II cruise congress in the Caribbean area in 1958. Alvaro had the distinction of representing the Pan-American Association of Ophthalmology on the International Council while he was president and later represented South America. In this position, he supported ophthalmology of the Western Hemisphere and the United States with greatest zeal. Just before his last illness, Alvaro had completed a strenuous tour of South America in behalf of the coming VIth Congress of the Pan-American Association of Ophthalmology to be held in Caracas, Venezuela, early in 1960. Alvaro was a member of the National Academy of Medicine of Brazil, the College of Surgeons of Brazil, the American College of Surgeons, the American Academy of Ophthalmology and Otolaryngology, and the American Ophthalmological Society. He was a diplomat of the American Board of Ophthalmology and a consultant to the New York Eye and Ear Infirmary. AJO 1959,48:687-688

Amalric, Léon-Victor (?- ?) French ophthalmologist who wrote «*Blessures de l'appareil cristallinien* » Paris 1866. Albert



Pierre Amalric by Paul Henkind

Amalric, Pierre (1923-1999) French ophthalmologist, born in Velour sur Agouti, a small village in the south of France, situated 70 km from Toulouse. His father, Edmond, practiced general medicine, and his mother was the daughter of a well-to-do farmer in Gaillac, France. During his adolescence, Amalric showed no interest in medicine as a career, much to the disappointment of his father. Rather, he was interested in pursuing the humanities, arts, and history. During the German occupation of France in 1940, he worked in his father's clinic. He entered medical school in Toulouse in 1940 and received the *diplome en medicine*. He also joined a liberal arts college to obtain a degree in history. He soon entered a network of resistance to the German occupation under the direction of one of his professors. From 1944 through 1945, he was assigned to various military units and hospitals. For a short time, he practiced general medicine. He soon came under the influence of Professor Calmettes, an ophthalmologist who became his role model and changed the direction of his career to ophthalmology. He presented his thesis under Calmettes in 1949. It was titled *Manifestations Oculaires de la Maladie de Besnier-Boeck-Schaumann* (Albi 1949). He was encouraged to open a clinic in Albi, which was really the beginning of his ophthalmologic career. Amalric made many trips throughout Europe visiting leading ophthalmologists, many of whom became lasting friends. Photography was one of his main interests, which served him well in furthering his medical career. His interest in rare books, history, and the humanities continued. He was much interested in fluorescein angiography. In 1969, Amalric invited a group of internationally known ophthalmologists interested in fluorescein angiography to meet in Albi. The conference was a tremendous success both scientifically and socially and led to the formation of the *Fluorescein Angiography Society*, which subsequently met in Japan, Germany, and Italy. Amalric published articles on ophthalmology, history, art, and humanities, numbering 670,

including major articles and lectures, mainly in French. His main medical contributions were on choroidal circulation, the treatment of diabetic retinopathy, and a description of the *Triangle Syndrome*, which bears his name. The subject of his papers varied from the investigation of the mysterious disappearance of the ships of the explorer Laperouse, who was born in Albi, to the various eye problems of the French Revolutionary period. He was proud of his French heritage and wrote a book on the history of French ophthalmology (to be published by Wayenborgh). He also wrote, with J.Mur and G.Santucci *Oeil et Lumière* (Special Issue, Bulletin des Sociétés d´Ophtalmologie de France, November 1990). He received many awards related to his efforts to preserve French culture. The distinguished national awards included Officier de la Legion d'Honneur, Chevalier de l'Ordre National du Mérite, Croix de Guerre, Combattant Volontaire de la Résistance, and Officier des Palmes Académiques. He was highly honored to be elected to the French Academy of Medicine. He also received 6 distinguished international awards and was especially proud of the honorary membership and Wacker Prize from the Club Jules Gonin. In addition, he was an honored guest of the American Academy of Ophthalmology. Arch Ophthal 118, 448, 2000. JPW

Amemiya, Tsugio (1937-) Japanese Ophthalmologist, Professor and Chairman of Department of Ophthalmology, Nagasaki University. He graduated from Kyoto University in1963 studied Ophthalmology in the Graduate School of Medicine of the Kyoto University under Prof.→Asayama Ryoji and received his Doctor of Medical Sciences in 1968 (thesis: *Dynamic aspects of vitamin A excess and deficiency in the retina. Cytochemical and electron microscopic examination of the retina of rats with hypervitaminosis A*. J. Jpn. Ophthalmol. Soc. 71: 2236, 1967; *Cytochemical and electron microscopic examination of the retina of rats with hypovitaminosis A*., J. Jpn. Ophthalmol. Soc. 72: 1074, 1968). He studied with Dr. Daniel M.→Albert at the Department of Ophthalmology and Visual Science, Yale University from 1970 to 1972 (*Ocular defects in newborn rats treated with 5-iododeoxyuridine (IUDR).* Proc. Soc. Exp. Biol. Med. 142: 1272, 1973). He is in the present position since 1987. He worked on ocular pathology using electron microscopy and has many publications, that include ″*Frequent coexistence of ocular malformations etc"* Invest. Ophthalmol. Vis. Sci. 37: 1967, 1996″and ″*Ultrastructure of retina of manganese deficient rats*. Invest. Ophthalmol. Vis. Sci. 37: 1967, 1996″. He is a Councillor of the Japanese Ophthalmological Society, The Japan Society of Histochemistry and Cytochemistry, the Japanese Society of Electron Microscopy, and Japan Society for Biomedical Research for Trace Elements. He is the Director of the Clinical Electron Microscopy Society of Japan. He is on the Editorial Board of Acta Histochemica et Cytochemica and Journal of Clinical Oncology. He delivered the Award Lecture to the 103rd Congress of the Japanese Ophthalmological Society in 1999 (*The eye and nutrition*, J. Jpn. Ophthalmol. Soc. Vol. 103, No. 12, 1999). (Department of Ophthalmology, Nagasaki University, 1-7-1 Sakamoto, Nagasaki 852-8501, phone: +81-95-849-7344 fax:+81-95-849-7347 ,
e-mail: tamemiya@net.nagasaki-u.ac.jp)(SM)

Ammar. *Full name*: **Abul Qasim Ammar b. Ali-Al Mausili** was one of the most distinguished, and by far the most original, of the Arabian oculists. Ammar was born at Mosul, in Mesopotamia, in the latter half of the 10th century. He made a number of pilgrimages, both for the purpose of study and for that of practising ophthalmology, dwelt for a time in Irak, and finally settled for the practise of his profession in Egypt. In this land it was, during the reign of the Sultan Hakim (996-1020 A. D.) that Ammar composed his highly original book, and, possibly, invented his suction method for the extraction of cataract. At all events, the suction method is undoubtedly Ammar's and his great treatise, entitled *"Book of the Selection of Eye-Diseases,"* is the most important work on ophthalmology now extant from the Middle Ages, with the single exception of the *"Memorandum Book for Oculists"* of Ammar's great contemporary, Ali ben Isa. American Encyclopedia of Ophthalmology 1,p.316-318

Ammon, Friederich August von (1799-1861) German ophthalmologist-son of the famous theologian, Professor Christopher Friederich von Ammon, was born in Göttingen. In 1813 he accompanied his father to Dresden, and from 1814-18 he attended the Schulpforte, leaving this institution to begin the study of medicine at Leipzig. Later, he continued his professional studies at Göttingen, where he was intimately associated with Blumenbach,

Langenbeck, →Himly, and other celebrated instructors. When he had studied at Leipzig for only a year and a half, he received the prize of the George-Augustus University for his work on the *"Semiology of Sleeping and Waking"*. In 1821, he graduated, presenting as his Dissertation *"The History of Ophthalmo-Paracentesis."* After a brief sojourn in Paris and another in Southern Germany, von Ammon settled (1822) in Dresden, where he devoted especial attention to surgery and ophthalmology. In 1824 he was appointed physician to the Dresden Institute for the Education of Blind Children-a position in which he displayed extraordinary ability. In 1828 he was made Professor of General Pathology, Materia Medica, and Clinical Medicine and Surgery in the Medico-Chirurgical Academy at Dresden. He had an extensive practice, especially in diseases of the eye, and seemed to be absolutely tireless in his work. The universal testimony is that, as a man, von Ammon was distinguished above all things by conscientiousness. Nothing that he did was done badly, or, to all appearances, in haste. The sole exception, perhaps, in this regard, is his literary work. In this, marks of haste do now and then appear. His services to surgery in general are very great, much greater however, are those to ophthalmology. He is said to have written 65 important articles, and his books, 7 in number, are without exception valuable. He was also the cause of much original and excellent work being performed by others -chiefly, of course by his own associates and pupils. Among these latter may be mentioned, Gescheidt, Lechla, Bech, Wimmer, Warnatz, Schön, Klemmer, Beger, Froebelius, and Zeis. von Ammon's most original work was done in relation to iritis, strabismus, symblepharon, and congenital ocular defects and malformations. His work on *Iritis* is so thorough and so carefully based on anatomical and pathological considerations as to make all previous investigations into the nature of this disease appear elementary. His treatise on *Ocular Defects and Malformations* was not, contrary to what has been suggested "the first upon this subject" but it was certainly the best upon this subject, and, at the present day (1913), it has not been superseded entirely. Aside from the "posterior scleral protuberance of Ammon," which presumably, will always continue to bear the name of its distinguished discoverer, what ophthalmologist, without thinking of this brilliant investigator, can call to mind such ocular malformations as epicanthus, the very name of which he invented, blepharo-ptosis, coloboma of the iris and of the lens, ankyloblepharon, blepharophimosis, and microphthalmus? von Ammon's books are as follows:1.*"Ophthalmoparacenteseos historia. Spec. medico-histor. Quo commentatur in varias hujus operat. ad cataract. sanand. Methodos hucusque institutas et in instrumenta hunc in usum inventa."* Cum tab, aer. incisa." Gottingae 1821. 2. "*Kurze Geschichte der Augenkeilkunde in Sachsen. Eine med.hist. Skizze bei Eröffnung der neuen Erziehungs- und Arbeits-Anstalt für Blinde in Dresden."* Leipzig 1824. 3. *"Brunnendiätetik oder Anweisung zum zweckmässigen Gebrauche der natürlichen und künstlichen Gesundbrunnen und Mineralbäder"* (Dresden 1825, 1828, 1835, 1841, 1854; Polish edition, 1827). 4. "*Die ersten Mutterpflichten und die erste Kindespflege zur Belehrung junger Frauen und Mütter"* (Dresden 1827, 1835, 1839, and so on even to the 13th edition). 5. *"Quaestio anatomico-physiol. de genesi et usu maculae luteae in retina oculi humani obviae." Acced. tab. in aes incisa.* Vinariae 1830. 6. *"De Iritide."* ... Leipzig 1838. 7. *"Klinische Darstellungen der Krankheiten und Bildungsfehler des menschlichen Auges, der Augenlider und der Thränenwerkzeuge nach eignen Beobachtungen und Untersuchungen,."* Hierzu 55 Tafeln mit 965 ophthalmoklinischen Abbildungen. Berlin 1847, Fol..8. "*Die plastische Chirurgie nach ihren bisherigen Leistungen kritisch dargestellt*". Berlin: G. Reimer, 1842; 9. *Acyclia irideremia und hemiphakia congenita. Zur Lehre von den angebornen Krankheiten des menschlichen Auges*. Bonn 1858, 10. "*Histoire du développement de l'œil Humain*" (translation by Van Biervliet) Bruxelles 1860. He also founded the journal *Zeitschrift für Ophthalmologie* American Encyclopedia of Ophthalmology, vol.1,p.319-321.Albert.JPW

Amrith, Shantha (1948 -) Female Ophthalmologist practising in Singapore. Graduated from Thanjavur Medical College in the Southern Indian State of Tamilnadu in 1971 and awarded a medal for the best graduating female student. Spent four years training in Ophthalmology under Prof L. P. Agarwal at the Rajendra Prasad Eye Institute in the All India Institute of Medical Sciences, New Delhi, at the end of which she obtained the M.D. degree in Ophthalmology. She was awarded a medal for the best out-going student in the year 1975. Worked in England for 18 months and obtained a D.O (Diploma in Ophthalmology) in 1977 and an F.R.C.S (Ophth) from the Royal college of Edinburgh in

1979. Worked in Kenyatta National Hospital, Nairobi for three months in 1979, and managed a wide range of eye diseases prevalent in East Africa. Moved to Singapore in 1980, and has been working in Singapore since 1981. Special interest is in Ophthalmic Plastic, Reconstructive and Orbital Surgery. In 1987, she spent two months with the Oculoplastic team in Sydney Eye Hospital, New South Wales, Australia. Since 1987, she has been running the oculoplastic service in the National University Hospital, Singapore. Later in 1989, she took up a two month fellowship in Oculoplastic and orbital surgery in the University of Cincinnati, Ohio, USA. She has been a part-time clinical tutor in the National University of Singapore. Has also participated in the teaching of eyelid and orbital diseases and surgery to post-graduate fellows under the auspices of the School of Post-graduate Medical studies since it was started. She has been an active member of the cranio-facial team, especially in the management of complex facial trauma in the National University Hospital. Currently a consultant in the Singapore National Eye Center (SNEC), but spending most of the working hours in the Department of Ophthalmology in the National University Hospital which is a subunit of SNEC. (National Eye Center, 11, Third Hospital Avenue, Singapore 168751; phone: 65-7725317/18; fax: 65-7777161; e-mail: ophv14@nus.edu.sg) (SM)

Amsler, Marc (1891-1968) Swiss ophthalmologist, long-time Director of the University Eye Clinic, Zurich, and Professor of Ophthalmology at the University of Zurich. Amsler studied medicine at the Lausanne university, earning his MD there in 1915. He doctoral thesis, sustained in 1916, was titled *Contribution à l´étude de la rétinite hémorragique, notamment de son étiologie et de son pronostic.* He worked for a time in the Eye Clinic under professor Samuel Eperon. After Eperon´s death, the clinic was directed by Jules Gonin. Amsler started his career as a pupil of →Gonin in Lausanne, where he was deeply engrossed in the first attempts at surgical treatment of retinal detachment. It was Amsler, who in numerous publications and lectures, advanced the conception of treatment of retinal detachment by surgical closure of the retinal tear. In 1944, after the death of Alfred →Vogt, Amsler was appointed Director of the University Eye Clinic, Zurich, and thus became Vogt's successor. In Zurich his research efforts turned from the retina to the aqueous humour, analysis of which was made possible by the introduction of the diagnostic anterior chamber puncture. For more than a decade he carried out important research on the behavior of the aqueous in acute and chronic iridocyclitis. Amsler's interest in the aqueous continued and he and his collaborators introduced the fluorescein test for determination of the permeability of the blood aqueous barrier. Thus the school of Zurich under Amsler's guidance built up, so to speak, the science of pathophysiology of the aqueous humour. He contributed, with S. Schiff-Wertheimer, a chapter in Baillart´s Traité d´Ophtalmologie : *Le décollement de la rétine*. He wrote, with Fl.Verrey and A.Huber, about aqueous humour: *L'humeur aqueuse et ses fonctions* Paris, Masson, 1955, and also authored *Method of using the tests charts of qualitative vision* (Zurich 1949). With Brückner, Streiff, Franceschetti and Goldman he edited *Lehrbuch der Augenheilkunde* in 1948. Amsler wrote also a little booklet titled *Contribution à l´Étude de la Métamorphopsie Rétinienne* (Zurich 1951). In addition to his research activities Amsler was fond of seeing patients from all over the world and was a fine, precise surgeon, particularly in the field of retinal detachment. He wrote a book on Keratoconus, a subject in which he was interested from the early days of his scientific career. AJO 1969,67:274-275; Kürschners Gelehrten- Kalender 1966 (only mentioned). BJO 1968,52:575 (Duke-Elder) JPW.

Anagnostakis, Andreas (1826-1897) Greek ophthalmologist born in Crete. He studied at the Universities of Athens, Berlin (v.Graefe), and Paris (Desmarres) receiving his M.D. in 1849 at the last-named institution. Returning to Athens to practice ophthalmology, he was appointed Director of the ophthalmiatric Institute in 1854, and Professor of Ophthalmology in the Athens University in 1856. In 1877 he became University Rector. From 1854 until his death he was one of the collaborators of the *Annales d'Oculistique,* and, from 1850 to 1860, was one of the editors of the *Journal Médical d'Athènes.* His numerous writings, some published in modern Greek, are especially, though not alone, valuable for the history of ophthalmology. Among the most important are: *Essai sur l'exploration de la rétine et des milieux de l'oeil sur le vivant, au moyen d'un nouvel ophthalmoscope*. Paris 1854 ; *Remarques pratiques sur le Traitement Chirurgical de*

l'entropion et du Trichiasis (1857) De l'ophtalmologie en Grèce et en Egypte (Bruxelles, 1858) *Mélanges Ophthalmologiques* (Athenes, 1861) *; Contributions à I'Histoire de la Chirurgie Oculaire chez les Anciens* (1872) ; *Encore deux Mots sur 1'Extraction de la Cataracte chez les Anciens* (1878). Many of his statements concerning the ophthalmology of ancients, though long believed in absolutely, have been overthrown by the later investigations of Julius →Hirschberg. Albert

Anderson, Ringland Joseph (1894-1961) Australian ophthalmologist. Joseph Ringland Anderson was born at Lilydale, Victoria, Australia. Like many another son of the manse, he was blessed with more than the average allowance of intelligence and determination. From Scotch College, Melbourne, he proceeded to the University of Melbourne, where he gained the M.B., B.S. degrees in 1916. He then joined the medical branch of the Australian Imperial Forces, and served their 45th Battalion as regimental medical officer, gaining the Military Cross in 1918, and reaching the rank of Captain. From 1919 to 1921 he was mainly engaged with intensive postgraduate preparation for his subsequent career as an ophthalmologist. Having obtained the F.R.C.S. at Edinburgh in 1919, he worked with the late Sir John Parsons and others at Moorfields Eye Hospital, and passed the D.O.M.S. examination in 1921. After returning to Melbourne, Anderson was soon launched into a full program of hospital work, and was appointed Ophthalmic Surgeon to the Alfred Hospital in 1923. He also found time to strengthen his qualifications by the F.R.A.C.S. (1930) and the M.D. (1932). The impact of his book *Detachment of the Retina*, published by the Cambridge University Press in 1931, was inevitably lessened by the fact that Gonin's revolutionary work on this subject had begun to attract world-wide attention while Anderson's work was being written. Nevertheless Anderson's book contained many sound observations, and the work that it involved gave him an abiding concern with the problem of retinal detachment. His work on Hydrophthalmia: *Hydrophthalmia, or Congenital Glaucoma, ist Causes, treatment and Outlook* (1939) was another important contribution to ophthalmology. Early in the 1930s Anderson became interested in disorders of ocular muscle balance. He felt that some of the pioneer claims concerning orthoptic treatment were too optimistic, but he firmly believed that, with proper selection of patients, orthoptic treatment offered a great opportunity to improve binocular function. He was also convinced that, whatever differences of opinion there might be with regard to the efficacy of treatment, there could be no reasonable doubt that orthoptic investigation by properly trained auxiliaries was an immense help in everyday practice. He wrote: *Ocular Vertical Deviations and the Treatment of Nystagmus* (London 1947, 2nd edition Philadelphia 1959). When the Second World War came, Anderson's special knowledge of ocular muscle imbalance was an immeasurable asset for the Royal Australasian Air Force to which he was appointed as consultant ophthalmic surgeon, as well as to the Australian Navy. Anderson was a wide traveller and an assiduous attendee at Congresses, not only in Australia where he was often an office-holder and a principal contributor to the program, but also throughout the world. His speech as Australian representative at the inaugural ceremony of the XVI International Congress in London, 1950, was remarkable for its virile sincerity. Even more memorable was his masterly survey of ocular muscle imbalance delivered in New York 4 years later at the XVII International Congress of Ophthalmology. The ground covered in this talk, together with much other first-class work, can be found in the second edition of his Ocular Vertical Deviations and the Treatment of Nystagmus, published by the British Medical Association in 1959. BJO 1961,45:640. JPW

Ando, Fumitaka (1935-) Japanese Ophthalmologist, Head of the Department of Ophthalmology, Nagoya National Hospital. Born as the 3rd generation in an Ophthalmology family, he graduated from Nagoya University in 1963, studied Ophthalmology at the University under Prof. →KOJIMA Koku and received his Doctor of Medical Sciences in 1968 (thesis: *Studies on oscillatory potentials in the glucose loading test in diabetes*. J. Jpn. Ophthalmol. Soc. 72: 1232, 1968). He is an expert in vitreoretinal diseases and their treatment and serves as Visiting Professor to Nagoya University, Tokyo Medical University and Fukushima Medical University. He has been productive and has published over 250 papers that include ″*Usefulness and limit of silicone in management of complicated retinal detachment*. Jpn. J. Ophthalmol. 31: 138, 1987″ and ″*Influence of systemic conditions due to diabetes mellitus on visual outcome after vitrectomy*. Folia Ophthalmol. Jpn. 47: 306, 1996″. He is a member of Club Jules Gonin and of the

International Vitreous Society. He served as the President of the following congresses: 30th Japanese Ergothalmological Symposium (1988), 29th Congress of the Vitreoretinal Society of Japan (1990), 37th Ergothalmological Symposium (1995) and 13th International Ergothalmological Symposium (1990, Singapore). He is the Chairman of the Asian Fund of Ophthalmologist Training: he has trained many Vitreo-Retina specialists from Asian Countries at his Department, and the trainees are playing a central role in their home Countries. (Department of Ophthalmology, Nagoya National Hospital, 4-1-1 San-no-maru, Naka-ku, Nagoya460-0001, Japan. phone: +81-5-2951-1111, fax: +81-5-2951-0664)(SM)

Andrade, Eduardo Penny (1872-1906) Venezuelan. This well known specialist in diseases of the eye, ear, nose and throat, as well as being an excellent bacteriologist, was born in Maracaibo, Venezuela and received his early education there. Andrade entered the Medical Department of the National College of Maracaibo in 1888, moved next year to the University of Caracas, and finally received his professional degree at Georgetown University in 1895.He was then a member for two years of the Venezuelan Legation at Washington. While in this city he studied bacteriology in the hygienic laboratory of the Marine Hospital Service. Next he devoted himself to the diseases of the eye, ear, nose and throat. In 1901 he entered on a course of study at the New York Ophthalmic and Aural Institute. In 1902 he went to Cuba, and graduated there at the University of Havana. Shortly afterward, he proceeded to Jacksonville, Florida, where he became director of the state bacteriological laboratory, a position which he held until his death. Andrade was a very versatile man, spoke several languages, was a fine extemporaneous orator. He is said on good authority to have been the first to discover the existence of Malta fever in Venezuela and the first "to find and report " a case of filariasis in the State of Florida. American Encyclopedia of Ophthalmology, Vol.1,p.413-414.

Andreae, August Wilhelm (1794-1867) German oculist and historian of ophthalmology born in Neuhaldensleben. His father before him was physician of some prominence. Graduating in 1814 at the University of Berlin, Andreae entered at once on the performance of his professional duties in the Chief Field Hospital of the Prussian Body Guard. In this capacity he accompanied the army on the second and the last expedition against Napoleon. Returning, from the wars in 1815, he studied ophthalmology for two years in Vienna under →Beer and →Jaeger. In 1817 he settled at Magdeburg for the practise of his speciality. However, like many another distinguished oculist, he was not merely an eye-doctor. At the College of Medicine and Surgery at Magdeburg, he delivered lectures not only on ophthalmology but also on general pathology and on therapeutics, and, it would seem with remarkable success in all three of these branches. He also became a director of the College, as well as medical adviser to the government, and, in addition to the very exacting activities implied by these positions, he performed the still more exhausting functions of a prolific and interesting general medical and special ophthalmologic writer. Among his medical works may be mentioned the following *Grundriss der gesamten Augenheilkunde* (in two parts, 1834 and 1837, 2d ed., 1846). This is not a large treatise but is a clear, exact and interesting monograph. It has been pronounced by no less an authority than →Magnus "the best ophthalmic text-book of the pre-ophthalmoscopic period. " Others are, *Aus den Vorträgen über specielle Augenheilkunde*, 1834. *Uber die Augenentzündung in Allgemeinen*, 1835. *Zur ältesten Geschichte der Augenheilkunde,* 1841-43. The last named work, though to some extent superseded by later treatises, is still (1913) of very great interest to all who delight in the history of ophthalmology. It may be said of his *Die Augenheilkunde des Hippocrates,* 1843, that it is a work of monumental scholarship (the first of its kind after Wallroth's *Syntagma de Ophthalmologia Veterum).* → Hirschberg declares "it deserves high praise, because it brings carefully together every passage of the great Hippocratic collection which deals either with the eye or with ocular diseases, or with the treatment of these affections, and has thereby rendered lighter the task of all subsequent workers in the same field, myself included. " American Encyclopedia of Ophthalmology, vol.1,p.414 – 415.Albert

Andrew, James Henry (1874-1937) American ophthalmologist, born at Cambridge, New York. He graduated from the Polytechnic Preparatory School in Brooklyn and received his M.D. at Bellevue Medical College, New York, in 1896. After nine years of general practice

he limited his work to ophthalmology, having served for four years at the New York Eye and Ear Infirmary under Marple. In 1908 he was appointed Assistant Surgeon, and later Associate Surgeon, on Jameson's Clinic at the Brooklyn Eye and Ear Hospital. In 1925 he became Attending Surgeon, a position occupied by him with honor until his death. Andrew brought to his work the highest traditions of the medical profession. He was thoroughly trained for his specialized field of service, unusually gifted in the skills and techniques of the ophthalmologist, and conscientiously devoted to the welfare of his many patients. AJO 1937,21:443

Andrieu A celebrated itinerant quack, who, in 1748, announced himself in Paris as *"the celebrated eye-operator from Lyons."* His services were much in request for a time, but little else is known about him. American Encyclopedia of Ophthalmology,Vol.1,p.416

Anel, Dominique French ophthalmologist who was born in Toulouse in 1769. According to →Pansier, he was an Italian, but, →Hirschberg has pointed out, this is undoubtedly a mistake. When a mere boy he became a kind of menial assistant to a surgeon in the St. Jacques Hospital at Toulouse, and, while serving in this capacity, made some slight discovery in connection with osteomalacia. The discovery was reported in a journal, and, by this incident, the young man's surgical ambitions became thoroughly aroused. After a short period of study he was accepted as surgeon on a French man-of-war. Returning from the navy he betook himself to Paris, where he expected preferment through the intervention of a rich and powerful relative. Various events, however, conspired to thwart his plans, and the result was that, for three years and a half, he studied in the Jardin Royal, the School of Medicine, the Amphithéatre of St. Côme, the Hôtel Dieu and the Charité. Then, for a very short time, he served as surgeon major to a regiment of infantry. During this period, however, he made a number of powerful friends, and, at its close, by special invitation from the Viennese Court he journeyed to the capital of Austria to consult with the famous de Tondeur, Surgeon to the Emperor. The next two years he spent in Vienna. Then we find him, at the invitation of a (German nobleman) friend, accepting a position with the army in Italy. He accompanied the troops on three expeditions, and also spent much time in Rome, Bologna and Florence. All the while he was studying, observing, investigating. In Mantua he was made Doctor of Surgery. In Turin he was appointed body-physician to the queen. He was taken ill in Genoa on the way back to his native town Toulouse and as a consequence of this illness he, it seems, to have spent the next three years there. In 1716 he went to Paris, where he limited his practice to diseases of the eye and became famous. His greatest services lay, of course, in the field of ophthalmology, specially in the surgery of the lachrymal apparatus. It was in 1712 that he performed the first of his long series of operations for the relief of lachrymal fistula. He was the author of *"Nouvelle méthode de guérir les fistules lacrimales"* Turin 1713 and *"Suite de la nouvelle methode de guérir les fistules lacrimales"* Turin 1714.American Encyclopedia of Ophthalmology, Albert

Ang, Beng Chong (1942 -) Singaporean male ophthalmologist. Visiting Senior?Consultant, Singapore National Eye Center, Head Division of Vitreoretinal Surgery, Eye Department, National University Hospital, Singapore and Visiting Professor, Tianjin Medical College, Tianjin, People's Republic of China. He graduated with M.B.B.S. from Singapore University in 1967 and studied ophthalmology under Dr Eddy Donaldson of Sydney Eye Hospital, Sydney, Australia. He was made Fellow of the Royal Australasian College of Surgeons in 1973. He specializes in vitreo-retinal diseases with special interest in diabetic retinopathy. He has published on *"Natural History of Diabetic Retinopathy: Treatment with Photocoagulation"*, Transactions of the Asia-Pacific Academy of Ophthalmology, Vol VII: 327-333, 1979; and *"Cryoapplication in Diabetic Retinopathy"*, Int. Ophthalmol. 9: 139-142, 1986. He has co-authored 2 books —*"Developments in Ophthalmology: Ocular Microsurgery"*. Vol 1, S Karger AG, Switzerland, 1979 and *"Fison's Retinal Detachment Surgery"*, 2nd Edition, P G Medical Books, 1989. He is a member of the National Commission on Diabetes, Honorary Secretary of the Asia-Pacific Intraocular Implant Association, member of the Editorial Board of the Asia-Pacific Journal of Ophthalmology. For his services he was awarded the Distinguished Service Award by the Asia-Pacific Academy of Ophthalmology in 1983, the Singapore National Eye Center Gold Medal in 1997, and the Award for Outstanding Contribution to the establishment and Development of International Intraocular Implant Training Center in

Tianjin, People's Republic of China. (Dr Ang Beng Chong: Visiting Senior Consultant, Singapore National Eye Center, Head Division of Vitreoretinal Surgery, Eye Department, National University Hospital: Eye Clinic Singapura, #02-38 Gleneagles Annexe Block, Gleneagles Hospital, 6A Napier Road, Singapore, 258500.?Phone: (65) 4666 666; Fax (65) 733 3360; e-mail: limsiewming@pacific.net.sg & eyeclinic@pacific.net.sg) (SM)

Ang, Chong-Lye (1955-) Singapore Ophthalmologist. He graduated from the University of Singapore with M.B.,B.S. Trained in Ophthalmology at the Department of Ophthalmology, Singapore General Hospital. Awarded the Fellow of the Royal College of Surgeons, Glasgow (Ophthalmology) in 1985. Conferred Fellow of the Royal College of Ophthalmology, United Kingdom in 1989. Trained under Professor Ian J Constable at the Lions Eye Institute, Perth, Western Australia, he specializes in diseases of the vitreous and retina since 1989-90. He served as the Chairman of the Singapore Society of Ophthalmology for two terms from 1992-93 and 1993-94. Currently, he is the Clinical Head and Director, Vitreoretinal Division, Singapore National Eye Center. (Dr Ang Chong Lye, Singapore National Eye Center Pte Ltd, 11 Third Hospital Avenue, Singapore 168751; Phone: (65)2277255; Fax: (65)2277290, e-mail: snecacl@pacific.net.sg) (SM)

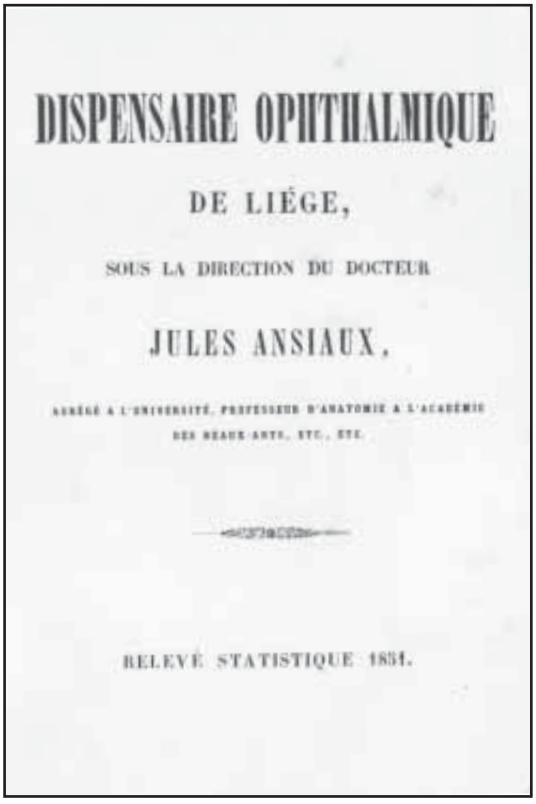
Angell, Henry Clay (1829-1911) American. One of Boston's noted ophthalmologists and one of he first to practice that speciality in the United States, born in Providence, Rhode Island. He was a graduate of Hahnemann Medical College, Philadelphia, class of 1853, and later studied for three years at Vienna University, after which he settled down to practice his speciality in Boston at 16 Beacon street. Angell joined the American Institute of Homeopathy in 1853, the year of his graduation in medicine, thus making his period of membership the phenomenal one of fifty-eight years. He became a member of the Massachusetts Homeopathic Medical Society in 1856, his name being on its roll at the time of his death. His loyalty to and interest in the cause of homeopathy as well as his literary tastes and qualifications are shown by, his assuming the editorship of the *New England Medical Gazette* in 1866. He thus became the first editor of this journal, although he later relinquished the post to Dr. I. T. Talbot and devoted himself to his speciality. For many years he was a member of the staff of the Massachusetts Homeopathic Hospital as its first ophthalmic surgeon. He was one of the small band of homeopathists interested in the evolution and establishment of Boston University School of Medicine. He was a member of its first Faculty and remained its professor of Ophthalmology until 1893, a period of twenty years, then he was succeeded by his associate in the department, John →Payne. His chief contribution to medical literature was a text book "*A treatise on diseases of the eye*" Boston 1871, for students and general practitioners which went through at least seven editions and was noteworthy for being the first on the homeopathic treatment of these diseases. Furthermore: "*How to take care of our eyes, with advice to parents and teachers*" Boston 1878 and *The sight and how to preserve it*. London 1880. American Encyclopedia of Ophthalmology, vol.1,p.463-465.Albert

Ango, Pierre (1640-1694) French Jesuit scientist, who taught mathematics at Caen. He was the author of "*L'optique divisée en trois livres ou l'on démontre d'une manière aisée tout ce qui Regarde*" Paris 1682. Ango's outline of a wave theory of light, posited eight years prior to Huygens' *Traité de la Lumière* (1690), establishes this work's significance to the history of optics. Ango, like Huygens, acknowledges a debt to the unpublished work of Jesuit scientist Ignace Gaston Pardies (1636-1673), who posited a wave theory based on optical experiments with reflected and refracted rays. Albert, Hirschberg, JPW

Anseth, Arvid (1925-) Swedish-Norwegian ophthalmologist. Born in Norway, Anseth moved to Sweden in 1944. He started his medical studies at the University of Lund, Sweden the same year and became Doctor of medicine in 1952 at the same University. He became Resident, junior and senior ophthalmologist and assistant Professor at the University Eye Clinic of Lund 1953-1971, Research Fellow at the Retina Foundation in Boston,Mass.,U.S.A.1959-1961 where he developed a method for separation of the glycosaminoglycans in the corneal stroma. This method was applied to describe the alterations of these substances at different pathological changes in the cornea. 1972 Anseth was offered the Professorship in Ophthalmology at the newly opened University Clinic in Tromsø, Norway, the northernmost University in the world. He participated in organizing the medical studies and the teaching activities at the new University for six

years. 1977 he was appointed Professor and Chairman at the Department of Ophthalmology at the University in Trondheim in the middle part of Norway, and 1980 he was appointed Professor and Chairman at the Department of Ophthalmology at the National Hospital, University of Oslo, Norway and worked there until he retired in 1993. 1979 he got the Bjerrum Reward in Copenhagen, Denmark. His main interests as ophthalmologist have been corneal research and corneal surgery. He has introduced modern techniques in keratoplasty in several of the main Eye Clinics in Scandinavia and stimulated research activities in the corneal field. Selected publications are as follows: Acta Ophtalmol 1957,35:73,85; Nord Med 1960,63:823; Svensk Lakartidn 1960,57:1785; Berlingska Boktryckeriet, Lund, Sweden 1961: "*Glycosaminoglycans in the corneal. stroma and their alterations during development and regenerations*" (Thesis); Exp Eye Res 1961,1:25,99,106,116,122; Abstr V Intern Congr Biochem, Moscow 1961 p.377; Invest Ophtalmol 1962,1:793; Acta Ophtalmol 1963,70:1330; Acta Ophtalmol 1964,42:341,345; Nord Med 1964,72:1490; *Proceed of the advanced Study Institute of NATO*, St.Andrews 1964, "*Structure and Function of Connective and Sceletal Tissue*", Butterworths,London 1965 p.506; Acta Ophtalmol 1965,43:281; Acta Ophtalmol 1966,44:180; Exp Eye Res 1967,6:107; Acta Ophtalmol 1967,45:684,688; Acta Ophtalmol 1968,46:909.912: Svensk Laekartidn 1969,65:2571; Trans of the Swedish Ophtal Soc 1968,245 Exp Eye Res 1969.8:297: Exp Eye Res 1969,8:310,438; Acta Ophtalmol 1969.47:1181; Textbook in Ophtalmology (Ed. von Bahr) Stockholm l972,p.113,115; Acta Ophtalmol 1970,48:455; Carbohydr Res 1970.15:73; Nord Med 1969.82:1452: Exp Eye Res 1971,11:251; Acta Ophtalmol 1971,49:552; Biochem Biophys Acta 1970,215:522; Svensk Laekartidn 1971,68:3692; "Corneal grafting" (Ed T.A.Casey). Butterworths. London 1972 p.59; Israel J Med Sciences 1972,8:1543; Exp Cell Res 1974,88:193. (AB)

Ansiaux, (Nicolas-Gabriel) Antoine-Joseph (1780-1834) Belgian surgeon. His father was physician of the prince-bishop. He obtained a surgery degree in Paris in 1803. In Liège he opened a school of surgery in 1806. He was the chief surgeon of the public hospitals and one of the three first professors of the Liège faculty of Medicine. Although a general surgeon he published also on *inflammation of the nasal duct* (1804) and treatment of *lacrymal fistula* (1816). (Verriest)


DISPENSAIRE OPHTHALMIQUE

DE LIÉGE,

SOUS LA DIRECTION DU DOCTEUR

JULES ANSIAUX,

AGRÉGÉ A L'UNIVERSITÉ, PROFESSEUR D'ANATOMIE A L'ACADÉMIE DES BEAUX-ARTS, ETC., ETC.

RELEVÉ STATISTIQUE 1851.

Ansiaux, Jules-Antoine (? -1869) Belgian ophthalmologist. Ansiaux obtained the M.D. degree in Liège in 1833. He obtained also a special doctorate. He was professor of anatomy at the Academy of Fine Arts. (Verriest)


Nicolas-Joseph-Victor Ansiaux

Ansiaux, Nicolas-Joseph-Victor (1802-1882) Belgian ophthalmologist, son of Antoine-Joseph →Ansiaux. He obtained the M.D. degree in Liège in 1823 with a thesis *on lacrymal fistula*. He was resident in the department of →Sichel in Paris. He worked for the Liège public hospitals since 1828 and teached theoretical and practical ophthalmology from 1838 to 1860 (among many other surgical matters). He published on *eyelid reconstruction* (1841), on *ocular foreign bodies*, on *lens luxation*, and on *the activity of his eye department from 1845 to 1850* (scrophulous ophthalmia was much diagnosed and blood-letting much practized). He was member of the (French) Belgian Academy of Medicine.(Verriest)

Anstis, Stuart, Ph.D. (?) British born American scientist. Anstis was born in England and was educated at Winchester and at Corpus Christi College, Cambridge. He took his Ph.D. at Cambridge with Prof. Richard Gregory. He has taught at the University of Bristol, U.K. and at York University, Toronto, Canada. Since 1991 he has taught at the University of California, San Diego (UCSD). He has been a visiting scientist at the Smith-Kettlewell Institute, San Francisco, the San Francisco Exploratorium, and at IPRI in Japan. He has published about 120 papers on visual perception, including the perception of real and apparent motion, Pulfrich's Pendulum, movement after-effects, contingent after-effects, coloured after images, normal and defective colour vision in babies, adaptation to gradual change in luminance, and the apparent size of holes felt with the tongue. Has also worked on hearing, including adaptation to frequency-shifted auditory feedback, hearing with the hands, adaptation to gradual change in loudness, and perfect pitch; and on motor after effects after jogging on a treadmill. With George Mather and Frans Verstraten he edited a book:″ *The motion after effect: A modern perspective*″(MIT Press) and published (selection): Mather, G., Verstraten, F. A. J. & Anstis, S. M. (1998) *The motion after-effect: A modern perspective*;Anstis, S. M., Howard, I. P. & Zacher, J. (submitted to ″Perception & Psychophysics″) *After effects from stepping around on a turntable*.;Anstis, S. M., Kontsevich, L. L. & Tyler, C. W. (submitted to ″Perception″) *Demonstrating the temporal contrast sensitivity function*; Cavanagh, P. & Anstis, S. M. (submitted to ″Perception″) *The boogie woogie illusion*. Anstis, S. M. (1998) *Picturing peripheral acuity*. Perception, 27, 817-825;Anstis, S. M., Stuerzel, F., Spillmann, L. (1998) *Spatial distortions in rotating patterns*. Vision Research, in press; Anstis, S. M., Verstraten, F.A.J. & Mather, G. (1998) *The motion after effect: a review*. Trends in Cognitive Science; Anstis, S. M., Hutahajan, P. and Cavanagh, P. (1998) *Optomotor test for wavelength sensitivity in guppyfish* (Poecilia reticulata) Vision Research 38; Anstis, S. M. and Ho, W. A. (1998) *Nonlinear combinations of luminance excursions during flicker, afterimages and binocular fusion*. Vision Research 38, 523-539; Spillmann L., Anstis, S. M., Kurtenbach, A. & Howard, I. P. (1997a) *Reversed visual motion and self-sustaining eye oscillations*. Perception 26, 823-830; Anstis, S. M. (1997b) *Experiments on motion aftereffects*. In: Harris, L.and Jenkin, M. (Eds): *Computational and biological mechanisms of visual coding*. Cambridge University Press; Anstis, S. M. (1996) *Adaptation to peripheral flicker*. Vision Research, 36, 3479-3485; Mather G, Anstis S (1995) Second-order texture contrast resolves ambiguous apparent motion. Perception 24, 1373-1382; Anstis, S. M. and Ramachandran, V. S. (1995) *At the edge of movement*. In: *The artful eye*. Gregory, R. L., Harris, J., Heard, P. and Rose, D. (Eds). Oxford University Press, pp. 232-248; Anstis, S. M. (1995) *Aftereffects from jogging*. Experimental Brain Research 103, 476-478; Arnold, K. and Anstis, S. (1993) *Properties of the visual channels that underlie adaptation to gradual change of luminance*. Vision Research, 33, 47-54; Anstis, S M. (1992) *Visual adaptation to a negative, brightness-reversed world: Some preliminary observations*. In: *Neural networks for vision and image processing*. G. A. Carpenter, S. Grossberg, Eds. MIT Press, Cambridge, MA,. pp. 1-14; Anstis, S. M. (1992) *Hidden assumptions in seeing depth and motion*. In: Gorea, A. (Ed): *Representations of Vision*. Cambridge UP. He has given over 250 invited presentations on his research throughout the USA, Europe and Japan, including an invited address in the President's Symposium at the annual meeting of the Society for Neurosciences a few years back and the 1998 Max Wertheimer Lecture in Frankfurt. His work has been featured in Discover magazine (June 1993) and in occasional television programs. He has won awards as an outstanding teacher at York University and at Earl Warren College, UCSD, where he was invited to give the commencement speech to 8000 people at the graduation ceremony in June 1999.He now lives in Del Mar, California.sanstis@ucsd.edu (JPW)

Antoine, Jean see **Maitre-Jan, Antoine** His classic book was published in Dutch under the name Jean Antoine ″*De besondere heel-en genees-konst der oogsiekten* ″ Leyden 1714.

Aoki, Heihachi (1906-1979) Japanese Ophthalmologist. He graduated from the Faculty of Medicine, Tokyo Imperial University (now Tokyo University) and received training in Ophthalmology, under Prof.→ISHIHARA Shinobu. He was appointed a Lecturer at the University in 1937, and in the next year he was granted the Doctor of Medical Science from Tokyo University. He was appointed the Professor and Chairman, at the Department

Heihachi Aoki

of Ophthalmology of Gunma University in 1946: the position he held until retirement in 1972. During his tenure, he served as the Director of the University Hospital and The Dean of the Faculty of Medicine. Subsequently, he was granted the title Professor Emeritus of the Gunma University. He served the Japanese Ophthalmological Society as a Council Member during 1947-1972. He delivered a lecture [Acute trachoma without mixed bacterial infection] at the 9th Congress of the Japanese Society of Clinical Ophthalmology, and a special lecture [Ocular diseases and Thymus and other endocrine organs] at the 72nd Congress of the Japanese Ophthalmological Society. He also served as the President of the 25th Congress of the Japanese Society of Clinical Ophthalmology. (SM)

Appelmans, P.J. Maurice (1902- ?) Belgian ophthalmologist. Appelmans was born in Gooik (Flemish Brabant). After obtaining his M.D. degree in Leuven in 1925 he worked during 3 years in Zaire (in those times Belgian Congo). From 1928 he specialized in ophthalmology under Anatole Vanderstraeten and became aspirant at the Belgian National Fund for Scientifical Research. In 1936 he was appointed to succeed to Vanderstraeten and to teach ophthalmology in both national languages. He has been the secretary and thereafter the president of the Fondation Médicale de l´Université de Louvain, which allowed him to return several times to Zaire, still a soft spot in his heart. Accordingly an important part of Appelman's scientifical production concerns tropical ophthalmology, more particularly ocular trypanosomiasis, filariosis, rhinosporidiosis and avitaminosis. He wrote a large number of other papers, especially on ocular pathology. Some were very early contributions, such as on radiotherapy of palpebral epitheliomas in 1930 and the description of a case of ocular toxoplasmosis in 1950. It is also in the early fifties that Appelmans begun to use at the Leuven Institute of Physics the electron microscope which was donated by the congolese mining company Union Minière du Haut-Katanga. He prepared 4 editions of his textbook "*Leçons sur les maladies des yeux*". He has been secretary of the Belgian Ophthalmological Society from 1940 to 1971. He retired from the University of Leuven in 1972, leaving his department to his two permanent collaborators, Jean Michiels and Luc→Missotten. He is full member of the Belgian Academy of Medicine and was its president in 1978. Since its reopening in 1834 French was the only official language of the Catholic University of Leuven till 1911 when some courses were given in Dutch. Ophthalmology was teached also in Dutch since Appelman's appointment in 1936. When the University decided in 1962 to confer full autonomy to both linguistic systems Appelmans choose the French one, but he continued to teach in both universities and to lead an undivided department of ophthalmology up to his retirement in 1972. Then Jean Michiels was appointed by the French speaking university, while Luc Missotten was appointed by the Flemish university, but the ophthalmological department remained unsplitted up to the displacement of the French-speaking section to Woluwe in 1978. (Verriest)

Appleton, Budd (1929-1999) American ophthalmologist, retired colonel at the US Army Medical Corps. Appleton matriculated at Columbia University in New York in 1950 and at New York Medical College in 1954. He served in Korea and returned for his residency in ophthalmology at Walter Reed Army Medical Center, Washington, DC, finishing in 1959. He served as the chief of the Ophthalmology Service at Fort Hood, Tex, from 1960 to 1962 and was the division surgeon, 7th Infantry Division, Korea, from 1963 to 1964. He returned to Walter Reed Army Medical Center, and served on staff before becoming the chief of service in 1967. His position as chief of service included serving as the ophthalmologic consultant to the Army Surgeon General. He was ophthalmologist to President Dwight D. Eisenhower, Senator Henry Jackson, and King Hussein of Jordan. His treatment of and surgery for these high-profile patients, while stressful, was successful. He was proud of the residency program offered by his service and continued the regular outside consultant teaching conferences that allowed Mel Alper MD, Mansour Armaly MD, Mike Lemp MD, John Harry King MD, Ed Maumenee MD, Frank Walsh MD, Tom Walsh MD, Bob Welch MD, and Lorenz Zimmerman MD, to assist in the education of residents and staff. Appleton became the first professor and chair of the Department of Ophthalmology of the Uniformed Services University of the Health Sciences in Bethesda, Md. He was elected to the Alpha Omega Alpha Medical Honor Society in 1971. Along with Bernie Blais MD, Hugh Monahan MD, and Peter Y. Evans MD, Appleton was among

the primary movers in the early days of the Joint Commission of Allied Health Care in Ophthalmology. He served several terms as president of the Joint Commission and remained involved in this aspect of ophthalmology throughout his career. Appleton wrote numerous journal articles. He received the Legion of Merit at his retirement from the army in 1978. In Minnesota, he served as a clinical professor of ophthalmology at the University of Minnesota, Minneapolis, and was on staff at United and Regions Hospitals, St Paul. He served as medical consultant for the Minnesota Services for the Blind and Visually Handicapped and worked for the St Paul Health Care for the Homeless Project as ophthalmologist and director of Eye Care for the Homeless Clinic (Dorothy Day Center in St Paul). Budd was past president of the Minnesota Academy of Ophthalmology. He wrote 2 books on antique and art glass. "*A Guide to Akro Agate Glass*" Kensington 1966 and "*Akro Agate*", 1972, and with Basil BLAIR, Norma GARBER, Mark CROWE, and Michael ALVEN: *Opticianary, Ocularistry, and Ophthalmic Technology*. Ophthalmic Technical Skill Series. New Jersey 1990. For the U.S. Bureau of Radiological Health, Budd Appleton wrote: *Results of clinical surveys for microwave ocular effects* Rockville, Md., 1973. Arch Ophthal 118, 733, 2000

Aquapendente see **Fabricius Aquapendente**

Araie, Makoto (1950-) Japanese Ophthalmologist, Professor of Ophthalmology of University of Tokyo, Graduate School of Medicine. He graduated from Tokyo University in 1974 and studied Ophthalmology unfer Prof. →MISHIMA Saiichi: he received his Doctor of Medical Sciences in 1981 (thesis: *Aqueous humor dynamics in man as studied by oral fluorescein*, Jpn. J. Ophthalmol. 24: 346,1980). He further studied in 1983-1985 at Stanford University CA, U.S.A. with Dr. David M. Maurice (Araie & Maurice: *The loss of fluorescein, fluorescein glucronide and FITC-dextran from the vitreous by the anterior and retinal pathways*. Exp. Eye Res. 52:27, 1991). He is the Professor and Chairman of the Department of Ophthalmology of the University of Tokyo, Graduate School of Medicine since 1997. His professional assignments are Councillor (1997-) and Executive Councillor (1999-) of the Japanese Ophthalmological Society, Councillor (1989-) and Executive Councillor (1998-) of Japanese Glaucoma Society, Councillor (1986-) and Executive Councillor (1994-) of Japanese Society of Ocular Pharmacology. His editorial assignments are Editor of *Jpn. J. Ophthalmol*. (1997-), *J. Jpn. Ophthalmol. Soc*. (1995-), *J. Jpn. Soc. Ophthalmic Surgeons* (1988-), *Folia Ophthalmol. Jpn*. (1991-) and *International Glaucoma Review* (1999-). He is Executive Committee Member of Asian-Oceanic Glaucoma Society (1996-) and is a member of the International Society of Glaucoma of the International Congress (1990-) and of the International Society for Eye Research (1990) and other international Societies. He received Alcon Research Institute's International Award in 1993. (Department of Ophthalmology, Tokyo University Graduate School of Medicine, 7-3-1, Hongo, Bunkyo-ku, Tokyo, 113-0033, Japan.
phone: 81-3-3815-5411, fax: 81-3-3817-0798, e-mail: araie-tky@umin.ac.jp)(SM)

Araki, Masasuke (1950-) Japanese Neurobiologist working on the Retina. He graduated from Kyoto University, Faculty of Science in 1974, and received his Doctor of Sciences from Kyoto University in 1979 (thesis: *Transdifferentiation of lens and pigment epithelial cells from neural retina of the chick embryos*). He is the Professor of Developmental Neurobiology, Department of Biological Sciences of Nara Women's University since 1998 and he is working on molecular and cellular mechanisms of the development of optic vesicle and differentiation of retinal neurons. His many publications include "*Localization of iodopsin in the chick retina during in vivo and in vitro cone differentiation*. Invest. Opthalmol. Vis. Sci. 31:1466, 1990" and "*Developing rat pineal cells manifest potential of neuronal differentiation in vitro*. Neuroscience Research, 20: 57, 1994. He is a member of Japanese Society for Developmental Biology, Japan Neuroscience Society, Japanese Society for Zoological Sciences and the International Society for Eye Research. (Nara Women's University, Faculty of Science, Kita-Uoya Nisimachi, Nara, 630-8506, Japan; phone & fax: 81-7-4220-3411, e-mail: masaaraki@cc.nara-wu.ac.jp) (SM)

Aranzio, Giulielmo Caesare (1530-1589) Italian. Aranzio was a pupil of Maggi, and Professor of Anatomy and Medicine in Bologna. He discovered, or in any event first accurately described, the *pes hippocampus*. He undoubtedly discovered the *coracobrachialis muscle*, the *foramen ovale*, the *ductus arteriosus*, and the *corpora Arantii*.

In ophthalmology, he discovered the *levator palpebrae superioris* muscle, and, it is sometimes said, the retinal image. As to this latter averment, however, there is much doubt. American Encyclopedia of Ophthalmology.

Archigenes (48 -117) A distinguished Roman eclectic physician, who was born in Apamea. He seems to have passed most of his life in Rome, for he is often mentioned in the satirist Juvenal. His writings undoubtedly exercised a great and lasting influence over Galen (A. D. 131-210) the greatest physician of antiquity after Hippocrates. As an ophthalmologist he is not of much importance, for his only writing on the eye is a brief section, ophthalmic remedies, in a work on materia medica. American Encyclopedia of Ophthalmology, vol.1,p.560

Arcoleo, Giuseppe (? - ?) Italian ophthalmologist who was director of the ophthalmologic clinic at the University of Palermo from 1867 to 1875. He authored "*Sulla corneite; e sue varie forme patologiche*." Palermo 1859.Albert

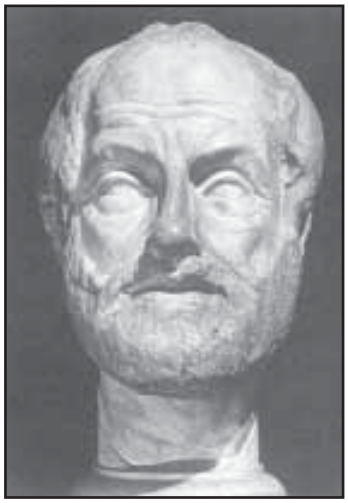
Ardi-Nana. Physician to Esarhaddon, king of Assyria, who reigned B. C. 681-668. Two of the letters of this very ancient ophthalmologist (both directed to the king) are still extant. The more interesting runs as follows: "To the king, my lord, thy servant, Ardi-Nana. May it be peace in the highest degree to the king, my lord; may Ninip and Gula give cheer of heart and health of body to the king, my lord. It is extremely well with that poor man whose eyes are diseased. I had applied a dressing to him; it covered his face. Yesterday, at evening, I undid the bandage which held it, I removed the dressing which was upon him. There was pus upon the dressing as much as the tip of the little finger. Thy gods, if any of them has put his hand to the matter, he has indeed given his order. It is extremely well. Let the heart of the king, my lord, be cheered. In seven or eight days he will be well." (Ninip and Gula were the Assyrian gods of healing.).American Encyclopedia of Ophthalmology, Vol.1, p.561.

Arganaraz, Raúl (1884-1964) Latin American, professor of ophthalmology at the University of Buenos Aires. For 28 years, until his resignation in 1953, he was head professor. Born in Rio Cuarto (Cordoba, Argentina), he taught English while he was studying medicine. He was an outstanding student and, due to his qualifications, he became resident at the Hospital de Clinicas. He was graduated in 1911 and became an assistant professor in 1917. He was one of the founders of the Argentine Ophthalmological Society and a member of the American Academy of Ophthalmology and Otolaryngology and of the International Council of Ophthalmology. Arganaraz contributed more than 150 papers to the literature. His book, *Manual de Oftalmologia,* has been for many years the textbook for medical students in Latin America and Spain, and a guide for new ophthalmologists of these countries. AJO 1964,58:1077-1078; Brit. J. Ophthal.1965, 49:386

Uruu Arisawa

Arisawa, Uruu (1881-1947). Japanese Ophthalmologist. He graduated from Tokyo Imperial University, Faculty of Medicine in 1906, and received training in Ophthalmology under Prof.→KOMOTO Jujiro at Tokyo University. He studied at Freiburg University under Prof. Th.→Axenfeld for 4 years, 1909-1914. On his return to Japan, he practiced in Osaka, and next year he was appointed Professor and Chairman of the Department of Ophthalmology at Osaka Medical School (now Osaka Medical College). In 1918, he was granted the Doctor of Medical Science from Tokyo University, and the same year he retired from the Medical College and practiced in Osaka. He served as the President of Osaka Ophthalmologists Association. In 1930, the 8th Congress of Japan Medical Society and 34th Congress of the Japanese Ophthalmological Society was held in Osaka and Prof. Th. Axenfeld was invited to deliver special lectures, and ARISAWA was the host during Axenfeld's travel throughout Japan. (SM)

Aristotle. This immortal philosopher, as well as "*Father of the Natural Sciences*," was the son of a famous physician, Nicomachus, who was himself descended from another physician, Nichomachus, alleged to have been the grandson of the old Greek god of healing, Aesculapius. Aristotle was born at Stagira (whence his surname, "the Stagirite") near Mount Athos, B. C. 384. He spent twenty years in company with Plato, at Athens, then three with Hermias, the Eunuch, tyrant of Atarneus. After that, he was called to Macedonia, where, at the court of Phillip, he was appointed instructor to Phillip's son,



Aristotle

Alexander, afterwards known as "the Great." While at this court, Aristotle supplicated Phillip to restore the former's native city, Stagira, which Phillip had destroyed, and his entreaty was granted. "He also made laws for the citizens. " . Then the great philosopher and founder of modern science went to live at Athens, where, in the covered walks round the temple of the Lycean Apollo, on the east side of the city, he set up his school in opposition to the Platonic school (now under the management of Zenocrates) which was conducted in the Academia gardens on the west side of Athens. Because of his continually walking up and down in the Lyceum with his disciples, "till the time for anointing themselves came," as Diogenes Laertius puts it, he was called the " Peripatetie," and his philosophy "the Peripatetic philosophy." His school of philosophy is also often known as "the Lyceum, while Plato's, for a similar reason, is called "the Academy." Aristotle was a peculiar looking man, according to all accounts, having small eyes and very thin legs, as well as, probably, other unprepossessing physical characteristics. Besides, in the attempt to make himself attractive, he spoke with "a lisping voice," arranged his hair with the utmost extravagance, and even indulged in very conspicuous dress and rings. Very magnetic he was, however, despite all these adverse circumstances, on account of his abundant flow of new and true ideas, which rapidly produced in the hearer a sweet forgetfulness of his physical imperfections. For thirteen years Aristotle walked and talked in the Lyceum, it is more than probable that, in the course of this period it was that he wrote the astounding volumes which, though not appreciated fully in antiquity, ruled in the middle ages not only supreme among secular writings, but, one might almost add, alone. Of his genuine works, the following, only, are extant; (there were many others) : 1. *Topics*. 2. *Prior Analytics*. 3. *Posterior Analytics,* 4. *On Sophistical Refutations*. 5. *Art of Rhetoric*. 6. *Nicomachean Ethics*. 7. *Politics*. 8. *On the Art of Poetry*. 9. *A Physical Discourse*. 10. *On the Heavens*. *11*. *On Generation and Destruction* 12. *Meteorologics*. 13. *Researches about Animals*. 14. *On Soul*. Appendices to the preceding work- (a) *On Sense and Sensible Things*. (b) *On Memory and Recollection*. (c) *On Sleep and Waking*. (d) *On Dreams and Prophesying in Sleep* (e) *On Longevity and Shortlivedness*. (f) *On Youth and Old Age*. (g) *On Life and Death*. (h) *On Respiration*. 16. *On Parts of Animals*. 17. *Locomotion of Animals*. 18.*On Generation of Animals*. 19. *The Metaphysics*. Though none of the works in this list is devoted exclusively to ophthalmology, Aristotle is, nevertheless, of great ophthalmologic importance because of the numerous observations and inferences concerning the human and animal eye, which are scattered about in his various compositions. These can, perhaps, best be grouped as follow (**1**) Those Relating to the Human Eye, (a) its anatomy, (b) its physiology (including his theory as to the nature of light), (c) its pathology (to all intents and purposes limited to errors of refraction and senile failure of accommodation). (**2**) Those Relating to the Animal Eye. American Encyclopedia of Ophthalmology, Vol.1,p.577-586.

Arkle, John Stanley (1890-1969) British ophthalmologist. Arkle was born in Newcastle upon Tyne, and after a short spell of studying to become an actuary decided to make his career in Medicine. At Durham University Medical School in Newcastle upon Tyne he was a brilliant undergraduate; he won many prizes, was awarded a gold medal, and graduated M.B., B.S. with honours in 1913. He served with the R.A.M.C. throughout the first world war and was awarded the O.B.E. in 1919 for his valuable services. After the war he studied at Moorfields Eye Hospital and later at Edinburgh where he took the F.R.C.S.E. in ophthalmology in 192o. In 1949 he was elected to the F.R.C.S. England *ad eundem*. He was appointed honorary assistant ophthalmic surgeon to the Royal Victoria Infirmary, Newcastle upon Tyne, in 192o and in 1928 became full surgeon and head of the department and also lecturer in ophthalmology at Durham University. For some years he was also honorary ophthalmic surgeon to Durham County Hospital and the Fleming Memorial Hospital for Sick Children. A regular attendee at ophthalmological meetings and congresses, he was President of the North of England Ophthalmological Society in 1949 and of the Section of Ophthalmology at the British Medical Association annual meeting in 1957. He retired from the posts of Departmental head and Lecturer in 1950, five years before he was due to do so because he felt this would help his juniors who had been absent during the war years. Nevertheless, such was his greatness that he continued to serve the hospital as Associate Surgeon until his final retirement in 1955. BJO 1970,54:144; Brit. med. J. 1969,4:693.

Ferdinand von Arlt

Arlt, Ferdinand Ritter von (1812-1887) Austrian, one of the most distinguished ophthalmologists of all the ages, Arlt was the son of a humble blacksmith at Obergraupen, Bohemia where he spent his boyhood days. He attended the grammar-school at Leitmeritz, and the University at Prague, where he graduated in 1839. An ophthalmologic pupil of Professor J. N.→Fischer, he acted from 1846 to 1849 as substitute-professor of diseases of the eye in the Prague University, and, from August 1849 till July 1856, as incumbent of the same position in his own right. Beginning in 1856, he lectured with world-renowned success on diseases of the eye at the University of Vienna, until July 1883, when, as a result of the Austrian law, he had reached the age-limit, and so was compelled to retire. From this time on, however, until his death, he continued in active ophthalmic authorship and in private practice. His writings are very numerous. Aside from journal articles, these are: *"Pflege der Augen im gesunden und kranken Zustande, nebst einem Anhange über Augengläser"* Prague 1846; improved edition, Prague, 1868. In this little volume, Arlt calls on the medical profession to fit spectacles and eye glasses themselves, instead of leaving so important a matter to opticians. *"Krankheiten des Auges"* (3 vols, Prag 1851, 1853, 1856)[GM 5865]; *"Bericht über die Augenklinik der Wiener Universität 1863-1865 unter Mitwirkung des Prof. Dr. Ferdinand Arlt, herausgegeben von Dr. Max Tetzer, Dr. Lucian Rydel und Dr. Otto Becker"*. Wien: W. Braumüller, 1867; *"Verletzungen des Auges"* Vienna, 1875[GM 5912] ; *Blessures de l'Oeil* Paris 1877 (translation by G. Haltenhoff, Professor of ophthalmology in Geneva); *"Injuries of the eye and their medico-legal aspect."* Translated by Chas. S. Turnbull, Philadelphia 1878; *"Über die Ursachen und die Entstehung der Kurzsichtigkeit."* Wien 1876; *Die Kurzsichtigkeit, Entstehung und Ursachen* Wien, 1878. *"Klinische Darstellung der Krankheiten der Binde-, Horn,-und Lederhaut, dann der Iris und des Ciliarkörpers"* Vienna, 1881. *"Klinische Darstellung der Krankheiten des Auges"* Wien 1881; *" "Clinical studies on diseases of the eye"* translated by Lyman Ware. Philadelphia 1885.(The English translation of *"Klinische Darstellung der Krankheiten des Auges"*); *Zur Lehre vom Glaucom."* Wien 1884; *"Operationslehre"* in :(Graefe-Saemisch, *Handbuch der gesamten Augenlheilkunde,* Bd. III, 2 Teil, Leipzig, 1874). In 1855, he became joint editor with →Donders of *"Graefe's Archiv für Ophthalmologie"*. Arlt was distinctly and undeniably one of the "path-finder" in ophthalmology. Indeed, in almost every book and article that he wrote, he exercised a decidedly formative influence on the entire profession. Thus, it was largely due to his influence that the test-types of →Jaeger and of →Snellen came into use, that oculists began to fit glasses themselves, that the view that short-sight was produced by lengthening of the antero-posterior diameter of the eye was generally adopted, etc. As a teacher, he was even more successful than as a writer. Those who had the pleasure of attending his lectures have declared that even the dullest student would listen to Arlt's every word with almost breathless interest. It was owing to Arlt's influence that Albrecht von →Graefe turned his attention to ophthalmology. A long succession of oculists who afterward became famous were trained by this deeply scientific and yet inspiring teacher. American Encyclopedia of Ophthalmology, Vol.1, p.587-588.


DES

BLESSURES DE L'ŒIL

AU POINT DE VUE
PRATIQUE ET MEDICO-LEGAL

PAR

LE Dr F. DE ARLT

LE Dr G. HALTENHOFF

PARIS
LIBRAIRIE GERMER BAILLIÈRE ET Cie

1877

Armaignac, Henry (1846- ?) French ophthalmologist. He was professor of ophthalmology at the Ecole pratique de la Faculté de Medecine de Paris, a laureate of the French Academy of Medicine and a foundation member of the French Ophthalmological Society. He had been chief of the Sichel clinic in Paris. He wrote «*Traité élémentaire d'ophthalmoscopie, d'optométrie et de réfraction oculaire*» Paris 1878 and *Mémoires et Observations d'ophtalmologie pratique* Paris 1889. Albert. JPW

Arnemann, Justus. (1763-1806) German surgeon, writer, and medical historian. A man of highly irritable temperament, he was nevertheless possessed, as some believed, of a charming personality, and, as all admitted, of a brilliant intellect. When only 24 years of age, he was made professor at Göttingen. Nine years later he founded his Private Surgical Hospital, and, the year following, his *Magazine for Surgical Science*. He wrote a *System of Surgery,* in which he devoted a moderate amount of attention to the eye, and which

secured the mild approval of some of the general surgeons of his day. His *Review of the Best Known and Most Frequently Employed Surgical Instruments of Ancient and Modern Times* fared better. It was, however, severely condemned, the ophthalmic part in particular, by no less a person than Joseph →Beer. Like many another physician, Arnemann was often in deep financial water. In 1803, because of his debts, he fled to Hamburg. There he succeeded for a time, but, in 1806, in a fit of despondency, he took his life by shooting himself in the Wandsbecker forest. American Encyclopedia of Ophthalmology, Vol.1, p.601.

Arnold of Villanova. A famous Spanish general physician (1235-1313) who became physician-in-ordinary to Peter III of Aragon, and who wrote a number of important works of a general character. His only ophthalmologic composition, *"Libellus Regiminis de Confortatione Visus",* written at the request of Pope Clement V, possesses little of value. It is merely an account of ocular hygiene, and is nothing but a compilation, chiefly from the Arab, Mesue. American Encyclopedia of Ophthalmology, Vol.1,p.602

Arnold, Dennis Jacob (1855-1919) American San Francisco ophthalmologist and oto-laryngologist, founder of the San Francisco Polyclinic, was born at Baltimore and graduated from Georgetown College in 1871. Three years later he received the M. D. at Washington University, Baltimore, being the youngest graduate of the college up to that time. He then went to Europe, where he studied the eye ear, nose and throat for several years. Returning to Baltimore, he practiced in that city for a time, but, having married, he moved to San Francisco, where he practised as ophthalmologist and oto-laryngologist until his death. After he founded the Polyclinic, Arnold devoted most of his time to its welfare. He was, for a very long time, the president of this institution, as well as the professor of diseases of the eye, ear, nose and throat therein.AJO 1920, 3:307

Arnold, Friedrich A. (1803-1890) German physiologist born at Edenkoben, Germany. Arnold received his M.D. at the University of Heidelberg, where he was a pupil of Tiedemann. He became a well-known professor of anatomy and physiology at Zurich, Freiburg, Tübingen, and, for many years, at Heidelberg. Arnold was among the pioneers in the scientific anatomical study of the eye; Arnold's ganglion, Arnold's fold, and Arnold's membrane are named after him. In relation to the eye, he wrote: *"Anatomische und physiologische Untersuchungen über das Auge des Menschen "*. Heidelberg und Leipzig 1832 which was his major work on the anatomy of the eye, and *"Icones nervorum capitis*." Heidelberg 1860, in which he describes his discovery that the cornea was equipped with lymphatic channels. He doubted the existence of ciliary nerves described by Friedrich Schlemm, and located the circulus venosus iridis, now termed the circulus iridis arteriosus major. American Encyclopedia of Ophthalmology, Vol.1,p.602; Albert

Arrasi. A renowned Arabian philosopher, physician, and ophthalmologist, who lived from 850 to 932 A. D. *see* **Ar-Razi**.

Ar-Razi, Mohammed ibn Zakarijah Abu Bekr. (850-932) He was also called **RHAZES, ARRASI, EL RAZI, ER RAZ, ABUBATER, ABUBERTUS, ABUBETER**, and **BUBIKIR**. This great Arabian physician was born at Rai (hence his names, Rhazes, Ar-Razi, Arrasi, El Razi, etc.) He became at first a cithern-player, later, philosopher, physician, court physician, medical teacher and author. He received his medical education in Bagdad, and there, too, he became a director of the hospital as well as professor in the medical college. In his prime he was one of the most widely known and highly honored of physicians, and patients came from the farthest portions of the civilized world seeking his services. In his old age, however, he fell on bad times, and died, totally blind and in abject poverty. He is thought to have been a teacher of rare endowment and a man of great sympathy for the sick. He was, beyond all question, not only very learned, but wholly independent in his scientific observations rarest of qualities in mediaeval times. **Ar-Razi**, or Rhazes, is chiefly remembered by general practitioners for his little book, *"De Variolis et Morbilis"* (On Smallpox and Measles) which is truly the earliest monograph on, but not exactly "the earliest mention of," smallpox, in the annals of medicine. The work shows great powers of independent observation and thought. However, **Rhazes**'s magnum opus is *Al-Hawi,* or *"Continens"* (The Content -i. e., of medicine). This encyclopaedic treatise does really meet the exactions of its ambitious title, for it ranges over the totality of the science and art of healing as these were known and practiced in the author's time. The

second book of this work is the one that chiefly concerns the ophthalmologist. This book, indeed, takes up almost, but not quite, every phase of mediaeval oculistic science. Here, however, we will not exhibit **Rhazes**'s ophthalmology, because, in its essence, it is very much the same as that of **Ali ben Isa**, which.is set forth fully under the name of that author. It may be mentioned, however, that, in the second book of the *"Continens"*, occurs the famous passage on cataract extraction which has been so often referred to as proving that the modern mode of extracting cataract was invented by Antyllus. The passage in question runs as follows (in the Latin translation, the Arabic original being lost) : *"Dixit Antilos: Et aliqui aperuerunt sub pupilla et extraxerunt cataractam; et potent, esse, eum cataracta est subtilis; et eum est grossa, non poterit extrahi, quia humor egrederetur eum ea. Et aliqui loco instrumeilti posuerunt concilium vitreum et sugendo cam suxerunt albugineum eum ea*." The fact, is, however, that, until the absolute demonstrations of →**Brisseau** and →**Maitre-Jean** in 1705, it was not even known that a cataract was an opaque crystalline lens, the supposition being that the morbid affair consisted of an inspissated humor which had "flowed down" (hence the term "cataract") into the space or chamber imagined to exist between the crystalline lens and the pupil. American Encyclopedia of Ophthalmology, Vol.1,p.602-603.

Arruga, Hermenegildo (1886-1972) Spanish ophthalmologist. Arruga´s family came from Aragon and his father, Eduardo Arruga, an ophthalmic surgeon, was born in Barcelona. Here H. Arruga was born and started his medical studies at the age of 16, completing them in 19o8. Thereafter the town council of Barcelona gave their brilliant student a scholarship to study in France and Germany. He worked under Landolt, de Lapersonne, Hirschberg and (Alfred) Graefe. In 1909 he published his first paper on the serodiagnosis of syphilis, in 1926 his Thesis, presented in Madrid, was on a "*simple and efficient modification of dacryocystorhinostomy*", and his last paper, published in 1969, reviewed 1ooo encircling operations in the treatment of retinal detachment, a technique he himself introduced. It was through this subject that he sprang to international fame. A close friend and disciple of Jules Gonin (during his time in Lausanne he wrote *Conférences Ophtalmologiques*, published in 1937), with him and Weve of Utrecht, Arruga may be said to have converted ophthalmologists throughout the world to adopt the new surgical method of treatment of a condition hitherto incurable. He lived on the upper floor of his magnificent clinic in Barcelona whither an unending stream of patients flocked from all over the world as well as ophthalmic surgeons from many lands. Here the instruction was painstaking and the hospitality superb; the lucky ones spent weekends with him and his family in his house built on the edge of a cliff at Cap Rubi on the Costa Brava. His life in Barcelona was interrupted during the Spanish Civil War. While it lasted his family lived with colleagues in Europe and he went to South America where he spent a period of concentrated activity teaching and practising surgery and doing much to raise the standard of ophthalmology in that continent. Arruga's published papers ran into several hundreds, mainly on retinal detachment, the surgery of cataract, keratoplasty, dacryocystorhinostomy, and the participation of the eye in systemic diseases. His two classical books were *Retinal Detachment*, published in four languages in 1936, an extension of his revolutionary contribution to the International Congress in 1933 on the "*Aetiology and Pathogenesis of Retinal Detachment*", and his *Cirugia Ocular*. This is a superb and beautifully illustrated volume derived essentially from his own practice with a critical appreciation of the work of others, first published in 1946, of which several editions followed in three languages; the third English edition, translated from the fourth Spanish edition, appeared in 1962, the chapter on the surgery of the extrinsic muscles being written by his son, Alfredo. Fortunately, for his unique professional activities -and also for his qualities as a man- Arruga received a multitude of honours. In Spain he was created a Count in 1950 and he received the Grand Cross of four Orders. To these were added Orders from Greece, Venezuela and Brazil, the honorary memberships of 30 ophthalmological societies, honorary degrees from Barcelona and Heidelberg, the Honorary Fellowship of the Royal College of Surgeons of Edinburgh and a host of civil awards and professional medals among which he treasured most the international Gonin Medal. In his honour the Hispano-American (now the Spanish) Ophthalmological Society instituted a medal to be granted every four years. He published also: *Conferences ophtalmologiques*, Lausanne 1937 BJO 1972,56:509-510; JPW

Asad ad-din Yaqub b. Ishaq al-Mahalli. A Jewish physician of Mahalla, Egypt, who flourished at the close of the 12th century, and who wrote a work entitled, "*Concerning the Vision.*" American Encyclopedia of Ophthalmology, Vol.1,p.638.

Takeo Asanuma

Asanuma, Takeo (1886-1949) Japanese Ophthalmologist. He graduated from the Faculty of Medicine, Kyoto Imperial University (now Kyoto University), and received Ophthalmology training at Kyoto University under Prof. ASAYAMA Ikujiro, and graduated from the Postgraduate School of Kyoto University. In 1921, he was appointed the Professor and Chairman of the Department of Ophthalmology of Nagasaki University. He submitted a dissertation [Experimental studies of Marchi degeneration in the optic nerve and optic tract] and was granted the Doctor of Medical Science from Kyoto University in 1937. He served as the President of the 39th Congress of the Japanese Ophthalmological Society in 1935. He retired from the Nagasaki University in 1935 and practiced in Nagasaki, and served as the President of the Medical Association of Nagasaki. (SM)

Ikujiro Asayama

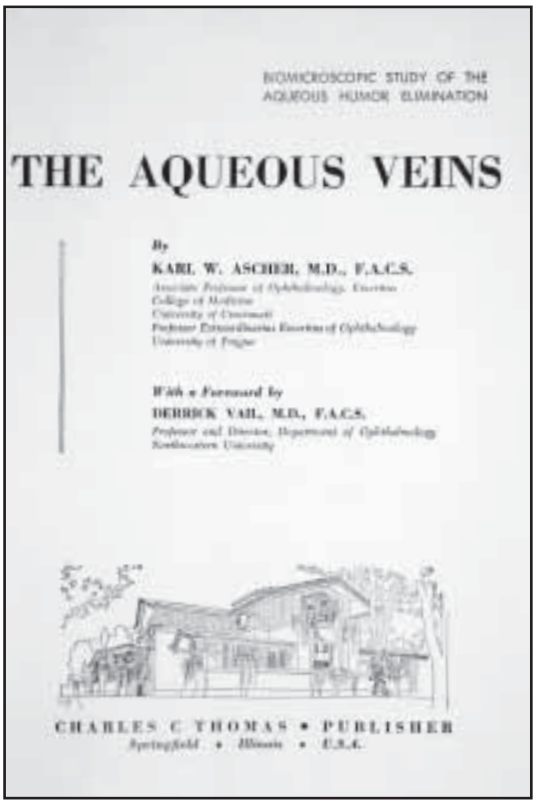
Asayama, Ikujiro (1861-1915) The *first* Professor of Ophthalmology at Kyoto Imperial University. He graduated from the Faculty of Medicine of the Imperial University (now Tokyo University) in 1884, and studied Ophthalmology under J. SCRIBA and UME Kinnojo. In April of that year he was appointed the Professor of Ophthalmology at Kyoto Medical School (now Kyoto Prefectural Medical University) and the Director of Kyoto Prefectural Hospital. He played a key role in the foundation of the Kyoto Medical Society in 1886 as the vice-president. He served as the Professor of Ophthalmology for 14 years, and the experience at this hospital was published in 1893: " *Poliklinische Augenkranke aus den Jahre 1891 in der ophthalmologische Abteilung des Kioto Hospitals in Japan*" Centralblatt fuer praktische Augenheilkd, 17:220,1893. In 1898, the Government decided to build a new Imperial University in Kyoto and ordered him to study Ophthalmology in Germany to be appointed the Professor of this new University of Kyoto on his return. Dr. Asayama stayed in Germany for 3 years, from June 1898 to January 1902, and received the *Doktor der Medizin* from the University of Würzburg. While he was in Germany, he was appointed the assistant Professor of Kyoto Imperial University and was promoted to Professor and Chairman on his return to Japan. He also received the Doctor of Medical Science degree from Tokyo University in 1903. Prior to his promotion to Kyoto University in 1893, he and Dr Ohnishi together with 14 Ophthalmologists decided to publish a new professional journal [Ganka Zasshi: Journal of Ophthalmology]: this was the first professional journal of Ophthalmology in Japan. Dr. ASAYAMA was one of the promoters of the Foundation of the Japanese Ophthalmological Society which held its first Congress in February 1897. The *Journal of Ophthalmology* was then integrated into the *Acta Societatis Ophthalmologicae Japonicae*, the Journal of the Japanese Ophthalmological Society. He served as the President of the Second (1898) and 7th (1903) Congress of the Japanese Ophthalmological Society held in Kyoto. He developed an ophthalmoscope of his own design (Asayama Ophthalmoscope) and many other instruments. He described the Central Serous Retinochoroidopathy by the use of his own Ophthalmoscope in 1898. He became ill and died during his tenure and the autopsy revealed tuberculosis as being the cause of his death. He educated many brilliant Ophthalmologists, to name a few: K.→ICHIKAWA, S.→SUGANUMA, Y.→KOYANAGI, K.→FUJIWARA, S.→MORI, S.→FUNAISHI and many others. Among many publications, he published in the German language: *Ueber die Resorption des Kammerwassers von der vorderen Flaeche der Iris*: v Graefe Arch. Ophthal. 51: 98:1900; *Zur Anatomie des Ligamentum pectinatum*, v. Graefe Arch. Ophthal. 53:113,1902; *Vollstaendige mikroskopische Untersuchung eines Falles von Sympathischer Ophthalmie*. V. Graefe Arch. Ophthal. 54:444,1902. (SM) AJO 5:926-928

Ryouji Asayama

Asayama, Ryouji (1904-1993) Japanese Ophthalmologist. He graduated from the Faculty of Medicine, Kyoto Imperial University in 1928, and received his Ophthalmology training at the Postgraduate School of Kyoto University under Prof. ICHIKAWA Kiyoshi, and then was appointed a lecturer at Kyoto University. In 1950, he was appointed the Professor and Chairman of the Department of Ophthalmology of Kyoto University, the position he held until retirement in 1968. In 1955 he served as the President of the 59th Congress of the Japanese Ophthalmological Society, and delivered the Special Lecture [Various phases of endophthalmitis] at the 66th Congress of the Society in 1962. He served as the Director of

the Kyoto University Hospital and also a Councillor of the Japanese Ophthalmological Society. He received the title, Professor Emeritus of Kyoto University in 1968. After retirement, he served as the Director of Osaka Teishin Hospital (a National Hospital under the Ministry of Posts and Telecommunications) during 1968-1975. The Government conferred on him The Second Order of the Rising Sun in 1974 in recognition of his outstanding service. (SM);

Ascher, Karl W. (1887-1971) American ophthalmologist of Cincinnati, Ohio. Born in Prague, he received his degree of "Universae Medicinae Doctor" from the German Karl-Ferdinands Universitaet Prague, 1911. He was a resident at the University Eye Clinic at Strassburg, Alsace, for one year and then returned to Prague as a resident in ophthalmology at the University of Prague. Ascher was a captain with the Austro-Hungarian Army during World War I and was a prisoner in Siberia for two years. He then served as privat-docent in ophthalmology at the University of Prague from 1922 to 1937 when he became associate professor. In 1939, Derrick→Vail provided Dr. Ascher the position of research associate at the University of Cincinnati, and made it possible for Dr. and Mrs. Ascher to evade the European holocaust. They arrived in New York in September of 1939 on the last ship to cross the Atlantic with lights ablaze. He was subsequently named assistant professor, associate professor, and in 1962, he became professor emeritus. Early in 1941 he was assigned to work with Tom D. Speies at the Hilman Hospital, Birmingham, Alabama, on the ocular aspects of vitamin deficiencies. This led to the discovery of the aqueous veins (Am. J. Ophth. 25:31, 1942). A skilled and prolific author, Ascher published over 160 scientific articles dealing with all phases of ophthalmology. He pioneered in keratoplasty, described the use of colored contact lenses for the management of ocular albinism, and published widely concerning glaucoma and cataract surgery. His book *The Aqueous Veins* (Springfield 1961) culminated his observations of these vessels and in 1953 the Section on Ophthalmology of the American Medical Association awarded him the Knapp medal which had not been awarded the previous 12 years. Ascher taught and practiced actively until his retirement at the age of 79. AJO 1972,73:140


BIOMICROSCOPIC STUDY OF THE AQUEOUS HUMOR ELIMINATION

THE AQUEOUS VEINS

By

KARL W. ASCHER, M.D., F.A.C.S.

With a Foreword by

DERRICK VAIL, M.D., F.A.C.S.

CHARLES C THOMAS • PUBLISHER

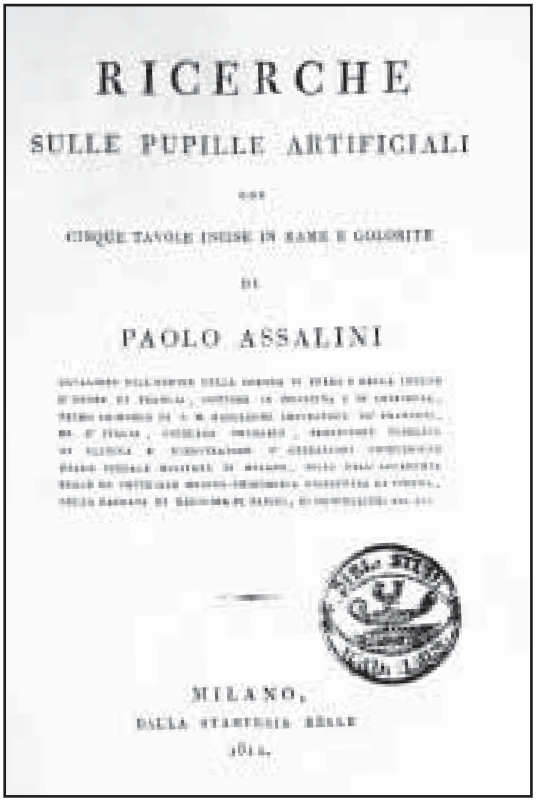
Asclepiades of Bithynia. A famous physician who flourished in Rome in the first century before Christ. He was the founder of the school of "*methodists*". He composed no work on ophthalmology, but, from a passage in Galen, it would seem that, in a book of his which was devoted to external remedies, there was a part, or division, which discussed of external remedies for the eye. The passage in question runs as follows: "Asclepiades furnished the best and most complete exposition concerning both dry and fluid remedies, and the collyria of the *Asclepiadean Collection, in the first book of External Remedies.*" American Encyclopedia of Ophthalmology, Vol.1,p.639.

Ashton, Norman Henry (1913-2000) British ophthalmologist, Professor Emeritus from London University, former Director of Pathology at the Institute of Ophthalmology, founder of the study of the pathological basis of eye disease in the UK, and founder of *Fight for Sight* in Britain. His legacy to ophthalmology comprises not only the results of his own research but also the structures he has left behind. His clear thinking was central to the creation of the current Institute of Ophthalmology building on a joint site with

Moorfields Eye Hospital. And by pivotal contributions to the establishment and growth of the national charity *Fight for Sight*, he has ensured that the current generation of researchers are in a position to carry on where he left off. Born in London, Ashton read medicine at King's College London and Westminster Hospital Medical School. After qualifying in 1939 he specialised in pathology and was appointed as a pathologist to the Kent and Canterbury Hospital from 1941 to 1945 before carrying out his military service with the Royal Army Medical Corp in West Africa and Egypt from 1945 to 1947. In 1948, the Institute of Ophthalmology invited him to the directorship of pathology, a position he held until 1978. During his time at the institute he built up a laboratory of international repute that has contributed enormously to eye research and provided a clinical service to Moorfields Eye Hospital, as well as hospitals throughout the world. During this period he provided an inspirational focus for innumerable clinicians and basic scientists who he introduced to the exciting world of applied science, and its potential to resolve clinical problems. In parallel, he was responsible for the training of the first generation of ophthalmic pathologists in the UK. His major research contributions related to diseases of the retinal blood vessels: diabetic retinopathy, hypertensive retinopathy and, most notably, the retinopathy of prematurity. In respect of the last of these, he made the key discovery that excessive oxygen given to compensate for breathing problems associated with premature birth can cause an obliteration of growing retinal blood vessels followed by disorganised regrowth and scarring. His observations led to the careful control of oxygen delivery to premature infants and saved the sight of countless babies. He was interested in all aspects of ophthalmic pathology but one that held a particular fascination was the study of worm infestations. He was the first In Europe to identify Toxocara canis (the dog roundworm) as a cause of retinal disease in children. One of his most significant contributions to the development of ophthalmic pathology as a discipline was his key role in establishing the European Pathology Society, of which he was made life president. This truly European enterprise, which is as healthy and vigorous today as it has ever been, was in many ways ahead of its time and has done much to improve diagnostic standards and to raise the profile of the subspecialty. A founder of *Fight for Sight* in 1965, Ashton was chairman from 1980 until 1991 when he became a patron. Fight for Sight is one of the foremost charities supporting eye research in the UK and has raised millions of pounds. In honour of his achievements in research and his close involvement with Fight for Sight, the new Institute of Ophthalmology building in Bath Street was named after him; a new research wing of this building was opened 1999. Ashton saw an intellectual challenge in everything around him and was endowed with limitless curiosity. His imagination was captured by a friend's frustration at not being able to catch trout in his favourite stretch of river. By application of his usual thorough approach to such matters, Norman discovered that the eyes of the trout in that stretch of the river were infected with a trematode fluke that damaged their lens, making them blind and unable to see the angler's fly. Ashton was also a talented artist, taking special delight in still life paintings in oils. Ashton received many academic honours during his career. Most notably, these include his election in 1971 as a fellow of the Royal Society and his appointment in 1976 by Her Majesty the Queen as Commander of the Order of the British Empire. He received the Proctor Medal in 1957, being the first non American to be awarded that honour. Numerous other awards include the Doyne Medal in 1960, the Gonin Medal for ophthalmology in 1978 (introduction by Jules François , laudatio by Bernardo Streiff), the first Jules Stein Award for outstanding ophthalmic achievement in 1981 (with A Patz), the International Pisart Vision Award in 1991, the Buchanan Medal of the Royal Society in 1996, and the Helen Keller prize for Vision Research in 1998. He was president of five medical societies of pathology and ophthalmology, was given the mastership of the Worshipful Society of Apothecaries, the award of an honorary doctorate by the University of Chicago in 1973, and was made an Emeritus Professor of pathology at the University of London in 1978. BJO 2000,84:443. *Publications de l'Université de Lausanne*, Vol. 49, 1978. JPW

As-Sadili, Sadaqa b. Ibrahim al-Misri. This author was one of the latest of the Arabian ophthalmologists. (He flourished in the second half of the 14th century and was the author of the last Arabian text-book on the eye. This work, which bears the somewhat tautologic title, *"Oculistic Aids for Diseases of the Visual Apparatus"* is divided into five main parts, in each of which theory as well as practice is given its appropriate share of attention. The first division deals with the necessary functions of the eyes, and of the anatomy of the

organ in question; the second, of general medical, as well as oculistic principles; the third is devoted to such diseases of the eye as are perceptible to the senses, their symptoms and their treatment; the fourth, so far as possible, to ocular diseases not perceptible to the senses; while the final chapter discusses the names, nature, and values of general as well as of ophthalmic medicines. Especially interesting, in the fourth section of the first division of this book, is the exposition of the three theories at that time held regarding the nature of vision. American Encyclopedia of Ophthalmology, Vol.1,p.644-647.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PAOLO ASSALINI

MILANO,

Assalini, Paolo (1759-1840) Italian ophthalmologist born in Reggio, who studied in Paris and Vienna. In 1811 he became first surgeon to Napoleon and professor of surgery at the military hospital at Milan. Afterward, Assalini worked for most of his career in Naples as a private physician. He made improvements to Pellier's lid retractor and to Scarpa's cataract needle, and was the *first* to use the procedure of iridodialysis, in 1782. He wrote: "*Discorso sopra un nuovo stromento per l'estrazione della cateratta.*" Pavia 1792; "*Observations on the disease called the plague ... the ophthalmy of Egypt and on the means of prevention*" New York 1806; "*Ricerche sulle pupille artificiali*" Milano 1811; "*Osservazioni mediche sull'ottalmoblenorrea*". Catania 1825 and "*Ricerche mediche sul mal d'occhi epidemico, con un cenno sul modo di far pupille artificiali e di operare cateratte.*" Napoli 1836.

As-Samarqandi, Abu Hamid Muh. b. Ali b. Omar Nagib ad-din. Arabian physician of the middle ages, who perished in the conquest of Herat by the Tartars, A.D. 1222. His writings are: *On the Causes and Symptoms of Diseases* and On *the Anatomy of the Eye*. The latter possesses considerable ophthalmologic interest. American Encyclopedia of Ophthalmology, vol.1,p.647-649.

Assicot, L. (1873-1916) French ophthalmologist. Professor of Clinical Ophthalmology at the School of Medicine of Rennes and ophthalmologist to the Hôtel-Dieu of the same city. Killed in Douaimont/Verdun during the world war of 1914-1918. The Ophthalmoscope 1916.

At-Tabairi, Abul Hasan Ali b. Sahl b. Rabban. This distinguished son of the still more distinguished Jewish physician, Rabban at-Tabari, was the teacher of the immortal Rhazes and body-physician to the Caliphs Mutasim and Mutawakkil. He flourished in the 9th century A. D. He wrote a comprehensive treatise on general medicine, in 30 books and 360 chapters. He also made a number of translations, presumably excellent, from Indian works on ophthalmology, but none of these have descended to our day. American Encyclopedia of Ophthalmology,vol.1,p.677.

At-Tamuni, Abu Abdallah Muh. b. Abmad b. Said. Arabian physician, who flourished in the latter portion of the 10th century, practised, first in Jerusalem; after A. D. 980, however, in Egypt. His only ophthalmic writing is: *A Chapter on the Nature of Ophthalmia, its Kinds, its Causes, and its Cures.* American Encyclopedia of Ophthalmology,vol.1,p.677.

Aub, Joseph (?- 1888) American ophthalmologist, born and educated in Cincinnati, receiving his professional degree at the Medical College of Ohio in 1866. He then pursued the exclusive study of ophthalmology at Vienna, London and Berlin. Returning to America, he was for some time assistant to Herman →Knapp, at the New York Ophthalmic and Aural Institute. In 1872, settling in his native city, he began the practice of ophthalmology on his own account. An excellent scholar, a skilful operator, he was very successful from the very beginning of his work. For seventeen years he was ophthalmologist to the Cincinnati Hospital, and, for 5 years was Professor of Ophthalmology in the Cincinnati Medical College. His chief fault was over-application to his practice. As a result of his almost unremitting labors, he became ill and, when it was altogether too late to be of benefit, he journeyed to the South, seeking there the health that could never be his again. Becoming convinced of the uselessness of further endeavors in this direction, he returned to Cincinnati, where he died soon after. American Encyclopedia of Ophthalmology,vol.1,p.677-678.

Aubert, Hermann (1826-1892) German professor of physiology at Rostock, whose studies of vision included the discovery of "Aubert's phenomenon"-the circumstances of an optical illusion. He invented "Aubert's binocular corneal microscope," which produces an upright picture by double inversion of an image. He wrote: "*Physiologie der Netzhaut* " Breslau 1865.

Augusteyn, Robert C. (1941-) Australian biochemist and vision scientist. Following doctoral studies in protein chemistry in the Biochemistry Department at the University of Queensland, in 1969, Augusteyn joined the laboratory of Abraham Spector in the Ophthalmology Research Division at the College of Physicians and Surgeons of Columbia University. There he spent 3 years investigating the structure of the lens protein, alpha-crystallin. He returned to Australia in 1971 to take up a biochemistry teaching appointment at the University of Melbourne where he remained for 20 years. He taught a variety of courses in a variety of disciplines, including dentistry, medicine, science. In 1991 he accepted the invitation to become Director of the National Vision Research Institute of Australia. His early work in Australia concentrated on the role of oxidation in the development of cataract and earned him the 1979 Shorney Prize for the most substantial contribution to knowledge in ophthalmology by an Australian in the to the lens, including ageing, metabolism, optics and crystallin structures. In particular, he became very heavily involved in the topic which was responsible for his introduction into vision science, the study of alpha-crystallin. In recent years, application of molecular biology techniques?to the study retinal disease has been added to the portfolio of interests. Since 1971, Augusteyn has participated in the training of both ophthalmologists and optometrists, presenting undergraduate, postgraduate and continuing education courses on the biochemistry of the eye. He has also trained numerous research scientists, many of whom now occupy senior positions in the vision research community as well as elsewhere. He was one of the Foundation Directors of the International Society of Eye Research and serves on a variety of organizations concerned with different aspects of vision care, public awareness, research and training. His publications include two annual review volumes of the Eye (1979 and 1980),book chapters on cataracts and lens proteins, 90 refereed publications in major?biochemical and vision journals as well as over 100 reports and abstracts. He has made significant contributions to the understanding of nuclear cataract formation documenting oxidative damage and changes in antioxidant protective pathways in the lens and formulating the hypothesis that hydrogen peroxide is the agent responsible. In the area of alpha-crystallin, his extensive physicochemical studies have provided detailed information on the structure, identified factors important in generating the quaternary structure and led to the proposal that alpha-crystallin may be a protein micelle. (SM)

Aung, Than (1938-) Myanmar Ophthalmologist, Professor and Head of the Department of Ophthalmology, Institute of Medicine (1), Yangon. He graduated from Institute of Medicine in Yangon in 1961 with M.B.,B.S. degree granted, extended his studies in London, receiving there DO (1967) and then in Edinburgh where he received his F.R.C.S. in 1972. On homecoming, he was appointed Professor at the Institute of Medicine in Vangon in 1991 and conjointly he served as Consultant Ophthalmic Surgeon at Eye ENT Hospital, Yangon. He holds the position of the past President of the Eye ENT Section of Myanmar Medical Association (1997-1999), and is a member of the Advisory Committee of Trachoma Control and Prevention of Blindness Program of the Ministry of Health. He is also a member of the National Eye Bank Central Committee of the Ministry of Health. He is a member of the Asia Oceanic Glaucoma Society (A 0GS), and besides Glaucoma, he is also interested in Retina and Strabismus. Some examples of his many publications are *Long term follow -up of trabeculectomy*, Proc. 1st Surgical and Allied Specialties Conference, Yangon, p295, 1982 , *Surgical results in strabismus operations*. ibid. p 220, *Classification of congenital glaucoma* 2nd AOGS Meeting, Tokyo 1999 and *Ophthalmology in Myanmar* (Ed) Lim K. H. et al. in *Ophthalmology awakens in Asia*, Singapore 1999 . (Department of Ophthalmology , Eye Hospital , 30 Natmauk Road , Yangon , Myanmar. Fax: +95-1-549638). (SM)

Avempace (c.1138 - ?) Also known as **ABu BeKR Mohammed IBN BADJEH**. Arab-Spaniard philosopher, poet, physician and oculist who lived successively in Saragossa, Seville, Granada and in Fez (Morrocco) about 1172 where he became Vizier to the

Almorawides. He was poisened by, or on instigation of, jealous physicians. His most important writings are on pharmacology, in which he mentions a number of remedies for diseases of the eye. American Encyclopedia of Ophthalmology, Vol.1,p.716.

Avenzoar. He was, in addition, known as **ABU MERWAN IBN ZOHR,** or **ZUHR;** also called **ABIMERON** and **ABUMERON.** This most distinguished representative of Spanish-Arabian medicine, and the most illustrious member of a highly distinguished Jewish family, was born at Pentaflor, near Seville, in the latter part of the llth century. His father and his grandfather were famous philosophers and physicians. Avenzoar himself, however, restricted his studies, or, at all events, his professional work, almost exclusively to medicine. He was especially famous as a clinician, and was, it is scarcely necessary to add, a keen observer and a profoundly original thinker. His master in the healing art was plainly Galen, but him the great Arabian, unlike most of the other physicians of the middle ages, did not follow slavishly.His most important book is *al-Teisir* (Alleviation by means of Remedies). In this book he takes an unusually hopeful view of many diseases, and even (in decided opposition to Galen) declares that amaurosis is curable. Concerning the cataract operation, however he is decidedly pessimistic, naively observing: Extraction is impossible, reclination permissible only. " The ophthalmic portions of his work are not, on the whole, of very great value. He left a famous son and grandson, named, respectively, Abu Bekr Muhammed b. Abd AI-Malik Ibn Zuhr and Abu Muhammed Abdallah b. Abu Bekr Muh. Ibn Zuhr. Each of these descendants surpassed his ancestor as an ophthalmologist. He died A. D. 1162.

Avenzohar. A celebrated Jewish ophthalmologist who flourished in Spain at the end of the eleventh century. See **Avenzoar.**

Averill, Thomas Leshe Francis (1928-1994) New Zealand ophthalmologist. Born in Christchurch, Averill was educated at Christ's College, Christchurch, at Canterbury University College and then at the Otago Medical School. He spent two years as house surgeon to Palmerston North Hospital and then came to Britain to study ophthalmology at Moorfields, obtaining the DO in 1959 and his Fellowship in Ophthalmology in 1966. In 1967 he was appointed visiting ophthalmologist to Christchurch Hospital, having brought back from Britain a wealth of experience in new techniques for treating retina] detachment, and remained an expert in this field, being one of the first to use the laser for these operations. He earned following titles: MRCS and FRCS 1966; MB ChB Otago 1955; DO 1959; FRACO. NZ Med J 1995, 108:212. LFRCSE

Averroes. Also known as **IBN ROSH**, and called **"THE MOHAMMEDAN SPINOZA. "** This distinguished contemporary, pupil, and friend of →Avenzoar was born at Cordova, Spain, A. D. 1126. His father and his grandfather were judges, and he himself became a Cadi. As a judge lie had a wide reputation. In 1196 he was appointed governor of Andalusia. Soon, however, he was accused by his enemies of heresy, and condemned to exclusion from the community of true believers. The place of his banishment was a Jewish colony near Cordova, called an-Nisada. He was soon recalled, however, and sent to Morocco, where he was bitterly persecuted till his death. He was a very industrious man, and is said to have spent, in all his adult life, only two nights without working-that of his wedding-day and that of the day which followed his father's death. He wrote on a vast variety of subjects-philosophy, philology, astronomy, law, and medicine. His chief medical work is generally called by its mediaeval Latin title, "*Colliget "* (Kitab al Kullijat" The General Principles of Medicine). The Colliget soon took rank as a high authority, second, in fact, only to the Canon of Avicenna. In a word, it is a whole system, or encyclopedia, of medicine, rather impractical, however, and thoroughly saturated with philosophy. As an ophthalmologist Averroes is greatly inferior to a number of other Arabians-notably Ammar and Ali ben Isa. He is nevertheless important for the history of optics, inasmuch as he wholly departed from the purely theoretical views of the nature of vision which had been laid down by the ancients and, for the most part, by mediaeval writers as well.

Avicenna. *In Arabic*: **ABu ALI AL-HUSAIN B. ABDALLAH B. AL-HUSAIN B. ALI AS-SAIH AR-RAIS IBN SINA**. This greatest of all Arabian physicians (for this reason generally called by the Arabs simply The Prince or The Chief) was born at Khorassan A. D. 980. At the age of ten he knew (it is asserted) the Koran by heart, and the greatest difficulty which his teachers met in connection with the instruction of this wonderful pupil

was to keep him supplied with subjects. At the age of 17 he was called in consultation in the case of the Emir, Nuch ben Mansur, and acquitted himself most creditably. The death of his father-a high official at Bokhara-having left him rich, Avicenna began a life of dignified and successful wandering. He passed from court to court, in the various capacities of physician, astronomer, author, teacher, and, finally, vizier-a dignity which he reached in Hamadan. Charged with treason, he was imprisoned. He escaped, however, and fled to Ispahan. Being here entertained with great cordiality, he remained for 14 years. He was all his life a great student and a wicked man. In his 58th year he died, as a result, it is said ' of excessive study and dissipation. Some still unkinder writers aver that he perished because, when sick, he took his own medicine. He was a very prolific and a very interesting writer. His works, declared to amount in number to 105, were in prose and in verse, and treated of law, astronomy, philosophy, mathematics, statesmanship, and medicine. Avicenna was not an original medical writer, but was an excellent compiler. His medical Magnum Opus, *"Kanun "*(Canon), was only a sort of combined codification and amplification of Galen, Paullus, and others of the Greeks. The literary form, however, was so delightful that the book at once took rank above the *" Kingly Book"* of Ali Abbas and even the *Hawi* of →Rhazes. It became the Canon indeed, not only for its own immediate time and place, but f or Western lands also through half a thousand years. Though chiefly a general practitioner, Avicenna also deserves high praise as an accurate and logical ophthalmologist. His writings on the eye are comprised in the third division of the third book of The Canon. As an ophthalmologist, however, Avicenna wrote, it would seem, from an inextensive personal experience in the treatment of eye-diseases. He has also been severely criticised for paying too little attention to the most important subjects like trachoma and cataract.

Awaya, Shinobu (1933-) Japanese Ophthalmologist, Professor Emeritus of Nagoya University. He graduated from Nagoya University in 1958 and studied Ophthalmology under Prof.→KOJIMA Koku: he received his Doctor of Medical Sciences from the University in 1965 (thesis: *Studies on Amblyopia*. J. Jpn. Ophthalmol. Soc. 69: 328-342, 1965). He served as the Professor and Chairman of the Department of Ophthalmology of Nagoya University from 1985 to 1997. His research interest is in Pediatric Ophthalmology and Strabismus, and he gave the Society's Award lecture *" Binocular functions in amblyopia and strabismus"*(J. Jpn. Ophthalmol. Soc. 101: 891,1997) at the 101st Congress of the Japanese Ophthalmological Society. Many other publications include *"Amblyopia in man, suggestive of stimulus deprivation amblyopia*, Jpn. J. Ophthalmol. 17:69, 1973" and *"Observations in patients with occlusion amblyopia: results of treatment*. Trans. Ophthalmol. Soc. U.K.99: 447, 1979". He served to the Japanese Ophthalmological Society as a Councillor (1973-1999), Board of Directors in charge of finance (1987-1991) and Board of Directors in charge of International relations (1997-1999), and he is Honorary Member of the Society since 1999. He also served the International Strabismological Association as a Councillor (1978-1994), as the Secretary-Treasurer (1982-1990) and the President of the Association (1990-1994). (Kawasaki University of Medical Welfare, 288 Matsushima, Kurashiki, 701-0193, Japan. fax: 81-86-463-1473, e-mail: kghawaya@kariya-gh.or.jp (SM)

Theodor Axenfeld

Axenfeld, Theodor (1867-1930) German ophthalmologist born in Smyrna, the son of Julius Axenfeld, a missionary. He was educated in Germany and studied medicine at the Univerisities of Marburg and Berlin. He took his M.D. degree in 1890. He studied ophthalmology under Prof. →Schmidt-Rimpler and more especially Prof. →Uhthoff. He worked at pathology with Marchand and bacteriology with Rubner and C. Fraenkel. He spent the winter 1894/95 in the laboratory of Hermann von→Helmholtz. During the years 1895/97 he was lecturer at the Universities of Marburg and Breslau and in 1897 he was called to the University of Rostock as Professor of Ophthalmology and Director of the University Eye Clinic. He remained in Rostock until 1901 when he accepted a call from the University of Freiburg and here he remained for the rest of his life, in spite of many calls from other universities. The chief reasons for his refusal of these calls where that at Freiburg he had an admirably designed and equipped ophthalmological institute and that being a small town he was not unduly worried by a large number of private patients. He always maintained the point of view that chiefs of clinics should keep themselves as free from private practice as possible in order that they should be able to devote themselves to


DIE BAKTERIOLOGIE
IN DER
AUGENHEILKUNDE
Dr. THEODOR AXENFELD

scientific work. It was to this aspect of ophthalmology that he gave most of his time and to which he made many notable contributions. His first important paper was " *Über die eitrige metastatische Ophthalmie* (Graefe Archiv 1894,40,III: 1-129) [Suppurative Metastatic Ophthalmia]," This paper is a model of what a completed investigation should be. It gives a detailed picture of the disease, the bacteriological findings, and the pathological changes, based upon experimental and clinical data, and remains to-day the classical paper on this subject. It was awarded the Graefe Prize by the Heidelberg (now German) Ophthalmological Society. This was followed in 1895 by the " *Etiology of the Serpiginous Ulcer of the Cornea*," in which he showed the important role played by the pneumococcus in the production of this condition. Then in 1896 came the discovery of epidemic pneumococcus conjunctivitis and diplobacillary conjunctivitis "*Beiträge zur Aetiologie der Bindehautentzündungen. Ueber chronische Diplobacillenconjunctivitis*. (Ber. Ophthal. Ges. Heidelberg 1897,25:140-155) [simultaneously with Victor→Morax]. In 1902, based upon the enormous experience acquired in Rostock, he published " <u>*Das Trachom*</u>," an exposition of all the various manifestations and complications of this plague and the best means of dealing with it, both individually and as a social question. The humanitarian and philanthropic aspect of the man was shown first in 1905 when he used as his subject for a Rectoral address "*Blindness and Care of the Blind*." In this subject he showed a continuous interest and always used his great influence to bring about an amelioration of the conditions of life for the blind in all social levels. From 1901 onwards he became interested in tuberculosis of the eye and many articles on this subject came from his laboratory and in 1909 the description of the condition " *Periphlebitis retinae tuberculosa*." In 1907 appeared the book "<u>*Bakteriologie in der Augenheilkunde*</u>" (Ophthalmological Bacteriology) which was translated into English in 1908 by MacNab. In 1908 he published in the French language his work " <u>*Le catarrhe printanier*</u>." In 1909 appeared the "*Lehrbuch der Augenheilkunde*" (Textbook of Ophthalmology) which went through many editions, and has been translated into many languages. The number of papers and books published under his own name amounts to nearly 200 and besides this there are a larger number which, emanating from his clinic and laboratory, owe their inspiration to him, but bear the names of those who worked under him. In 1899 he became associated with Zehender in the editorship of the *Klinische Monatsblätter für Augenheilkunde*." In the following year Zehender retired and this important publication was carried on by Axenfeld alone from that time. In 1915 he assumed jointly with Elschnig the editorship of the big Graefe-Saemisch " <u>*Handbuch der Augenheilkunde*</u> " and in that year appeared the first edition of the "<u>*Operationslehre* </u>" to be followed in 1922 by a second edition. In 1898-1928 appeared the volumes "<u>*Pathologie des Auges*</u>" as part of the "*Ergebnissen der allgemeinen Pathologie*" of Lubarsch and Ostertag. Axenfeld was the recipient of many honours, both in his own and foreign countries. Besides many ribbons and stars of knightly orders, the University of Freiburg made him first Dean of Faculty of Medicine and later, Rector of the University. In 1925 he became President of the German Ophthalmological Society and he was German representative on the League of Red Cross Societies for the Prevention of Blindness. He was an honorary member of many foreign medical societies and in 1929 was awarded the Lucien Howe gold medal of the American Ophthalmological Society for his "Great services to Ophthalmology." He had previously received the Graefe Medal of the German Ophthalmological Society. In 1928, he and →Wessely represented Germany at the meeting of delegates which arranged the 1929 International Congress at Amsterdam. BJO 1930,14:537-539. [GM 5938;5941] JPW

Ayscough, James (d. ca. 1762) British, 18th century London spectacles- and microscope-maker. He wrote for the layman "<u>*A short account of the eye and nature of vision, chiefly designed to illustrate the use and advantage of spectacles*</u>" of which the fourth edition appeared in London 1755.Albert

Azuma, Ikuo (1930-) Japanese Ophthalmologist, Professor Emeritus of Osaka Medical College. He is a graduate of Osaka University in1955 and studied Ophthalmology under

Prof. →MIZUKAWA Takashi: he received the degree Doctor of Medical Sciences from the University in 1960 (thesis: *Studies on the hypotensive mechanism of an anti-glaucoma agent (acetazolamide)*. Folia Ophthalmol. Jpn. 11: 66, 1960). He served as the Professor and Chairman of the Department of Ophthalmology of Osaka Medical College from 1974 to 1999. During his tenure he served as the Director of the Hospital in 1988-1992, and after retirement he now serves as a full-time Member of the Executive Council of the College. His interest in research has been glaucoma and he organized the First Congress of the Japan Glaucoma Society as the President in 1989. He also received the *Suda Award* from the Society in 1994. He has written 68 books and 352 articles that include "*Diagnostic problems in glaucoma*, J. Jpn. Ophthalmol. Soc. 79:1687, 1975" and "*Progress in drug therapy of glaucoma*, J. Jpn. Ophthalmol. Soc. 97:1353, 1993": the latter paper was delivered as the Society's Award Lecture at the 97th Congress of the Japanese Ophthalmological Society. He is also a member of the Glaucoma Society of the International Congress of Ophthalmology since 1982. He also served as the President for the First Congress of the Japanese Society of Ophthalmic Surgeons (1978), 28th Congress of the Japan Contact Lens Society (1985) and 50th Congress of the Japanese Society of Clinical Ophthalmology(1996). He is the Chairman of the Board of Directors of the Japan Contact Lens Society since 1988. (Osaka Medical College, 2-7 Daigakumachi, Takatsuki, Osaka, 569-0801, Japan. e-mail: iazuma@poh.osaka-med.ac.jp, phone 81-726-84-6228, fax:81-726-82-0995, (SM)

B

Baas, Johann Hermann (1838-1900). German. Medical historian. He received his Medical degree in Giessen in 1860. Became general practitioner. Baas wrote several medical historical books of which"*Grundriss zur Geschichte der Medicin*" Stuttgart 1876 (Sketch of the History of Medicine) became famous. An English translation was published in New York 1889. He wrote a few brief ophthalmologic articles, but numerous passages on the history of ophthalmology in his above mentioned book. American Encyclopedia of Ophthalmology, vol.2, pp.729. [GM.6389.]

Charles Babbage
(Daguerreotype by Antoine Claudet)

Baas, Karl (1866-1944). German ophthalmologist. He wrote: *Das Gesichtsfeld*, Stuttgart 1896 and *Die Seh- und Pupillen-Bahnen* Breslau 1898 (in: H.→Magnus *Augenärztliche Unterrichtstafeln*). Albert

Babbage, **Charles (1792-1871)** English mathematician. MA.Peterhouse, Cambridge 1817. Co-founder of the Astronomical Society. Lucasian professor of mathematics Cambridge 1828-39. Before →Helmholtz made discovery which could have lead to the invention of the ophthalmoscope. He authored "*Passages from the life of a philosopher*" London 1864.Concise Dictionary of National Biography (Oxford 1901). [GM 5874]; Albert; Arch Ophthalmol 1997,115:1456-1457;JAMA 1902,9:549-552.

Reconstruction of Babbage´s Ophthalmoscope (1847)
[Courtesy Prof. Remky Munich]

Bach, Ludwig (1867-1912) German ophthalmologist. Bach was assistant to Julius von →Michel at Würzburg from 1891-1900 and succeeded to →Hess at Marburg University in he autumn of 1900. Bach became distinguished for his works on bacteriology of the eye, the reactions of the pupil and malformations of the eye. He published with R. Seefelder: *Atlas zur Entwicklungsgeschichte des menschlichen Auges*. Leipzig/Berlin, Engelmann,1911-1914. The Ophthalmoscope, 1912, p.424. JPW

Roger Bacon

Bacon, Roger (1214-1294) English philosopher and scientist. Bacon was educated at Oxford and the University of Paris, and joined the Franciscan order in 1250. In a period of eighteen months during 1266-1267, he produced the seminal medieval scientific works *Opus majus*, *Opus minus*, and *Opus tertium*. Bacon stressed the importance of experiment in the study of nature, and the use of mathematics in astronomy and physics. In his writings on optics he stated the laws of reflection and refraction. He wrote "*Perspectiva*" Francofurti 1614; "*The cure of old age, and preservation of Youth*" (2 vols.) London 1683; *Opus majus ad Clementem quartum nunc primurn edidit S. Jebb.* Londini 1733. Concise Dictionary of National Biography (Oxford 1901);American Encyclopedia of Ophthalmology, Vol.2,pp.747-50; Albert

Bacqué, Joseph (late 18th-early 19th cent.,) of Bordeaux, France, was professor of anatomy and surgery, and chief surgeon, at the Hôtel-Dieu de Saint-André. He wrote: *Considérations et observations médicales sur le paralysie du nerf optique et de la rétine* Montpellier, c.1812.Albert

Badal, Jules (1840-1929) French ophthalmologist born in Salers, France. He received his M.D. at Strasbourg in 1864, and from 1878 taught ophthalmology at the University of Bordeaux after having been Professor of ophthalmology in Paris. His was particularly interested in refraction, accommodation, and generally in physiological optics. He authored : «*Clinique ophtalmologique*.» Paris 1879 and in 1881: *Lecons d´ophtalmologie-Memoires d´optique physiologique*. Badal also invented or altered numerous, partly experimental ophthalmic instruments. He was recipient of the Prix Barbier (2000 Francs) from the Faculty of Medicine in Paris. JPW

Bader, Charles (1825-1899), was a German ophthalmologist who settled in London after the political disturbances of 1848. He became an ophthalmic assistant surgeon at Guy's Hospital. According to→Hirschberg, Bader introduced the ophthalmoscope in England. Bader wrote: "*The natural and morbid changes of the human eye and their treatment*." (2 vols.) London 1868.Albert

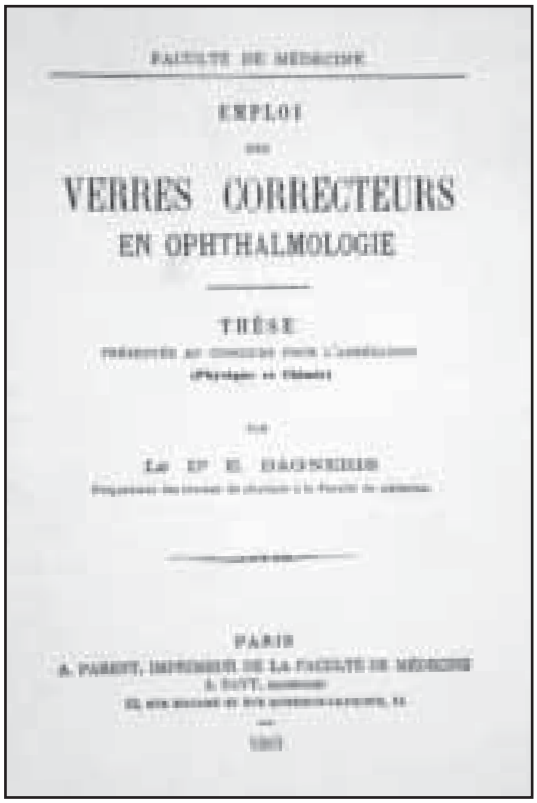
Badrinath, Sengamedu Srinivasa (1940-) Indian Ophthalmologist, Chairman of Medical Research Foundation and President of Vision Research Foundation, Chennai, Professor of Ophthalmology, C.U. Shah Postgraduate Training Center. He graduated from Madras University in 1963, studied in Canada and received F.R.C.S. in 1969 and in the following year he received the Diplomate of the American Board of Ophthalmology. He is a Fellow of the National Academy of Medical Sciences, India, since 1995. He has served as Consultant Ophthalmologist to H.M.Hospital Madras (1970-1972), Vijaya Hospital Madras (1972-1978) and Honorary Consultant Ophthalmologist, Voluntary Health Service Medical Center, Madras (1970-1977). He specializes in vitreo-retinal surgery, and published 70 scientific papers in National and International Journals and wrote many books, e.g. "*Anterior segment reconstruction* in: *Textbook of Ophthalmology*, by H. V. Nema". He chaired many research groups and received 37 Honor Awards during 1980-1998. Some examples of his guest orations are the 32nd Annual Founder Memorial Lecture at Shriram Institute for Industrial Research Delhi, entitled " *Ophthalmic Research in India - The present and the future*" in 1996 and "*Prevention of Blindness - Role of Physicians*" at the Vivekananda Institute of medical Sciences In 1996.(18 College Road, Chennai 600-006, phnen: +91-44-826-1265, fax: +91-44-825-4180, e-mail: chairman@sankaranethralaya.org) (SM)

Badtke, Günther (1910-?) German. Lecturer of Ophthalmology 1942-45 at Innsbruck(Austria), Professor & Chair Humboldt University Berlin 1953-54.Professor & Chair University of Halle(former German Democratic Republic) 1955.Graefe Prize of the German Ophthalmological Society 1963.He wrote: "*Die normale Entwickelungsgeschichte des menschlichen Auges*"1958 ; "*Die* Missbildungen *des menschlichen Auges*" 1961. As an ophthalmologist Badtke specialised in embryologic teratologic problems published between 1940 and 1963 in Graefe´s *Archiv für Ophthalmologie* , *Klinische Monatsblätter f. Augenheilkunde, Zeitschrift f. Anatomie* and others. Kürschners Gelehrten- Kalender 1966, p.64.

Baerens, Bernhard Friedrich (1795-1863) German physician of Riga. Baerens received his M.D. at the University of Tübingen and afterward became town physician in Riga,

where he founded an ophthalmological clinic. Baerens describes In his inaugural dissertation (*Dissertatio inauguralis sistens systematis Lentis crystallinae monographiam physiologio-pathologicam* Tübingen 1819.) the physiology and pathology of the crystalline lens. This monograph was also included in Julius→Radius' *Scriptores ophthalmologici minores* (1826-1830), a collection of important monographs of the early nineteenth century. Albert

Bagley, Cecil Hopkins (1893-1961) American ophthalmologist. Bagley was born in Bagley, a small community in the vicinity of Belair. His father was a prominent physician in Harford County and his brother, a noted brain surgeon was for many years head of the Department of Neurosurgery at the University Maryland. Dr. Bagley received an A.B. degree from the Johns Hopkins University in 1917, and the degree of Doctor of Medicine from the Johns Hopkins University School of Medicine in 1921. Following his graduation from medical school, he had four years of residency training in the Department of Surgery the Johns Hopkins Hospital. During this period of training he served under Dr. William Halstead and Dr. John M.T. Finney general surgery. He also worked with Walter Dandy in neurosurgery and Dr. Staige Davis in plastic surgery. 1925 when Dr. William H. Wilmer came to the Johns Hopkins Hospital he expressed a desire to have as his first resident someone who was thoroughly trained in general surgery. For this reason he selected Dr. Cecil Bagley, who was then a resident on the surgical house staff, to be his first resident in the Wilmer Ophthalmological Institute. After the completion of his residency, Dr. Bagley entered the private practice of ophthalmology in Baltimore. He rapidly acquired a large following of interesting patients.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EN OPHTHALMOLOGIE

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PARIS

Bagneris, E. (?-?) French lector in physical sciences, active in the second half of the 19th century. He authored as his professoral thesis: "*Emploi des verres correcteurs en ophtalmologie.*" Paris 1883 (published the same year as a book).Albert.JPW

Bahr, Gunnar O. A. von (1907-1997) Swedish Ophthalmologist. He was qualified in medicine at Uppsala and was awarded the Doctorate of Science in 1936. He passed his ophthalmological education at Uppsala and was Professor of Ophthalmology 1952-1979. Among his scientific contributions can be noted; the development of tetanic cataract, the physiology of corneal thickness (*Measurement of the thickness of the cornea*. Acta Ophthalmol. 26: 247, 1948, *Corneal thickness. Its measurement and changes*. Am. J. Ophthalmol.42: 251, 1956) and the significance of optical aberrations on vision (Acta Ophthalmologica 23: 1, 1945). Von Bahr had a lively interest for education and was the editor and author of a Nordic *Textbook of Ophthalmology*, he was also the promoter of Nordic courses in postdoctoral education. He was an active member of several international associations and was honoured with the presidencies of the *Concilium Ophthalmologicum Europaeum* 1960-64, the *Concilium Ophthalmologicum Universale* 1962 and the *Association for Prevention of Blindness* 1970-1974.(by L. Berggren)

Baiardi, Pietro (1862-1922) Italian ophthalmologist. He finished his medical course at Turin, and took up the study of Ophthalmology in Reymond's clinic. Later he was Professor at Genoa, and in 1911 was called to succeed →Reymond at Turin. He contributed numerous writings on different subjects of Ophthalmology. Much of his early work dealt with problems of Physiologic Optics, including some important work on the axis in astigmatism. In considering cataract operations with reference to the postoperative astigmatism produced, he decided that the most advantageous method was the linear extraction of Albrecht von →Graefe. In experimental pathology he was among the first to successfully transmit trachoma from man to the apes. In the field of therapeutics he demonstrated that mercury could be recovered from the intraocular fluids after local applications. His work on the microscopic examination of the conjunctival vessels during life, was an early forerunner of the recent work with the slit lamp. He showed minute changes of these vessels in diabetes, arteriosclerosis and nephritis. He was a skilful operator and made important contributions to operative technic. He was the first to propose peripheral iridotomy in

cataract operations. The method which he finally decided upon as ideal, however, was his subconjunctival method of extraction.AJO 5:842

Bailey, Pearce (1902-1976) American neurologist, first director of the National Institute of Neurological Diseases and Blindness at the National Institutes of Health. Bailey received his A.B. from Princeton University in 1924; an M.A. degree in psychology from Columbia University in 1931; and a Ph.D. two years later from the University of Paris (Sorbonne) .Bailey's psychological studies with the nervous system further encouraged his interest in medicine, and in 1941 he graduated from the Medical College of South Carolina and was certified by the American Board of Psychiatry and Neurology in 1947. He served as Chief Resident Physician of Bellevue Hospital's Neurologic Service, New York, 1942 to 1944; was appointed Commander, MC, USNR, and served as chief of the Neurologic Service, Philadelphia Naval Hospital, 1944 to 1946. He joined the Veterans Administration in Washington, D.C., in 1946 and became director of the newly established National Institute of Neurological Diseases and Blindness, a position he held for eight years. In 1959 he went to Antwerp, Belgium, to be director of the Institute's International Neurological Research Program, where he coordinated its programs with those of the World Federation of Neurology, the organization he had jointly founded two years earlier. Three years later Dr. Bailey became special assistant to the director of the NINCDS as chief of the Institute's Inter-American Activities, with offices in San Juan, Puerto Rico. There he worked with the University of Puerto Rico and coordinated neurological programs in Latin America. He retired in 1971. Bailey was the author of many papers in the neurological sciences. Many related to such neurological disorders as epilepsy, spinal cord injury, muscular dystrophy, multiple sclerosis, and stroke. He was particularly interested in the rehabilitation of neurology patients, in the state-of-the-art of neurology, and in famous neurologists. He wrote several biographies and translated from the French Guillain's biography on J. M. Charcot(1825-1893), the father of modern neurology. AJO 1976,82:510-511

Bailey, Samuel (1791-1870) Briton of Sheffield, England, writer on philosophical topics, was largely self-educated. He inherited the family cutlery business, but devoted most of his life to literary pursuits, writing on politics, economics, and especially the nature of human thought and perception. In optics, he wrote.″*A review of Berkeley's theory of vision, designed to show the unsoundness of that celebrated speculation*.″ London 1842. Bailey maintains that we have a direct perception of external objects which cannot be analyzed into a complex process.(Albert)

Bailey, Walter(1529-1592) *see* **Baley**

Bailliart, Paul (1877-1969) French ophthalmologist. Schooled at Besancon (1884-95) he entered the military medical school at Lyon, presenting his medical thesis in 1900 (*Traitement Chirurgical de la Myopie en particulier par la Suppression du Cristallin*) and acted as an army surgeon from 1902 to 1907 when he went to Paris and initially worked with Morax; thereafter he had a distinguished professional career in that city. His contributions to the whole of ophthalmology were widespread; and he produced three books of great merit: the *Traité d'Ophtalmologie* 8 vols. (1939), with Magitot the *Manuel d'Ophtalmologie* (195o), and *Les Affections de la Rétine* (1933). It was perhaps in the retina that his chief interests lay and his technique of ophthalmodynamometry brought him fame throughout the specialty. He was also interested in history and to his credit wrote two books on this subject. But it was his wide international relations and his personal qualities that constituted his greatest influence on ophthalmology. A member of a host of ophthalmological societies he was personally known to most ophthalmologists of his time. BJO 1970,54:72

Baird, James Mason (1903-1966) American ophthalmologist born in Columbus, Georgia. Baird attended Emory University and was graduated from University of Georgia School of Medicine in 1927. He interned at University of Georgia for one year and was chief surgical resident at Duval County Hospital at Jacksonville, Florida, for one year. He served his residency in ophthalmology at Wills Eye Hospital in Philadelphia from 1930 to 1932, and was associated with Grady Clay from 1932 to the time of Dr.Clay's death in 1946. Baird was certified by the American Board of Ophthalmology in 1937, and elected to membership of the American Academy of Ophthalmology and Otolaryngology in 1938.

He was a Fellow of the American College of Surgeons and of the American Academy of Ophthalmology and Otolaryngology of which he was ex-vice president. He also served on the American Board of Ophthalmology as associate examiner for a number of years. He was a member of the American Ophthalmological Society, American Medical Association, Pan-American Association of Ophthalmology, National Medical Foundation for Eye Care, Southern Medical Association, Southeastern Surgical Congress, Medical Association of Georgia, Atlanta Ophthalmological Society (ex-vice president), Georgia Society of Ophthalmology and Otolaryngology, and the Fulton County Medical Society. Baird was an assistant professor of ophthalmology, Emory University School of Medicine. He was a member of the staff at Piedmont Hospital, Emory University Hospital and Grady Memorial Hospital. He was consultant for National Society for Prevention of Blindness for many years. He was a former member of the American Orthoptic Council. In 1934, Drs. Clay and Baird were the first in this area to establish orthoptics as part of their office routine. He was a member of Kappa Alpha, Alpha Kappa Kappa, Alpha Omega Alpha. During World War II, he served in the Pacific as Lt. Commander in the United States Navy. He was the author of several articles on different aspects of ophthalmology, among them "*Restoration of the orbit*," "*X-ray therapy of corneal ulcers*," "*Cataract extractions*" "*Correction of strabismus*," and "*Interpretation of the hypertensive fundus*." . He was recognized as a superb ophthalmic surgeon, being especially expert in cataract extraction.AJO 1966,62:172-173

Baker, William Henry (1857-1898) American.General practitioner in Lynchburg,VA., whose practice was largely focused on ophthalmology.Studied medicine at the University of Maryland and at the South Carolina College of Medicine.Wrote a few articles on ophthalmology, but was better known for his skill as an operator.American Encyclopedia of Ophthalmology, 2, p.865.

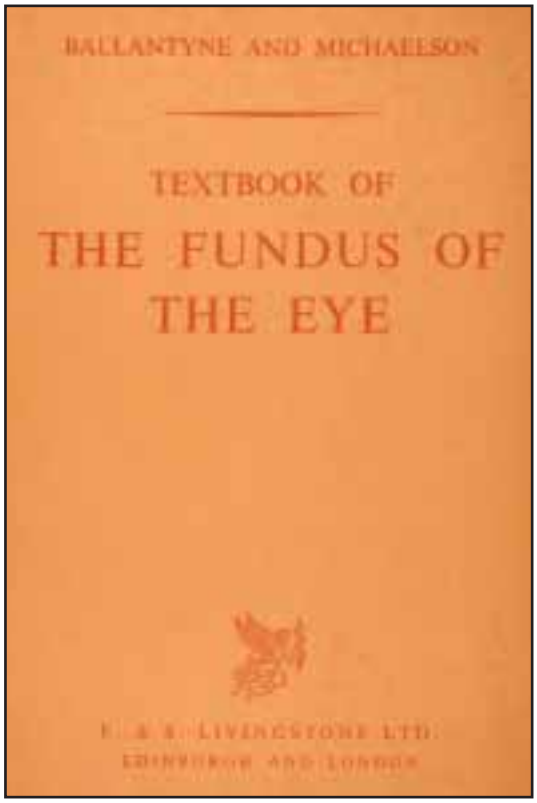
Balakrishnan Vivian (1961-) Singaporean Ophthalmologist, Associate Professor at the National University of Singapore's (NUS) Department of Ophthalmology, Medical Director of the Singapore National Eye Center, Departmental Director, Department of Ophthalmology, National University Hospital and Head of the SNEC Paediatric Ophthalmology Service at the KK Women's and Children's Hospital. He graduated from the National University of Singapore in 1985 with a Bachelor of Medicine and Bachelor of Surgery. He received his Master of Medicine (Ophthalmology) from the National University of Singapore; and was admitted as Fellow of the Royal College of Surgeons of Edinburgh. He obtained a 2-year paid position as Senior Registrar in Moorfields (London) in 1993 where he received subspecialty training in paediatric ophthalmology under the tutelage of Dr John Lee, Head, Paediatric-ophthalmology and Strabismus Service at Moorfields Eye Hospital, and Dr. David Taylor at Great Ormond Street Hospital for Sick Children. His other appointments are : Member of the National Committee on Ophthalmology appointed by the Minister of Health; Member of the Advisory Committee on Ophthalmology to advise the Ministry of Health on matters relating to Ophthalmology; Member of Ethics Policy and Review Committee of the Singapore Medical Association; Member of the Council of Singapore Medical Association: Board of Director of the National Library Board; Member of the Subject Committee of the National Singapore 21 Committee advising the Singapore government on selected strategic direction for the next decade; Member of the Singapore Broadcasting Authority Appeals Advisory Committee advising the Minister for Information and the Arts on broadcasters' appeals; Member of the Committee on Family appointed by the Minister for Community Development to propose policies and programs that help strengthen families; Member of the Expert Panel for Drug Evaluation, Ministry of Health, Singapore since 1998. He holds the rank Major in the Military and is the Commanding Officer of the 2 Combat Support Hospital in 1999. Has been invited to lecture and conduct teaching programs in Vietnam, Nepal, Australia, China and the Netherlands. Also represented Singapore Ministry of Health at the WHO meeting on Prevention of Blindness Program in Fukuoka in October 1998 to discuss eye care programs for the elderly. Currently the principal investigator for 3 myopia clinical research studies in children covering i) *Atropine* ii) *Multifocal Spectacles Lenses* and iii) *Pirenzepine Ophthalmic Gel*. His research interest also covers clinical applications for Botulinum Toxin in Ophthalmology, Multimedia Computer Aided Education, Excimer Laser Photorefractive Keratectomy clinical trials, Vector analysis of astigmatism post

pterygium and cataract surgery, interpretation of automated perimetry using artificial neural networks etc. Published 24 papers in international, regional and local refereed journals. The most recent publications were "*Neisseria Meningitis Endogenous Endophthalmitis: Case Report and Literature Review*, Journal of Paediatric Ophthalmology and Strabismus May/June 1999, Vol 36 No.3 and "*Botulinium Toxin A in the Treatment of Sixth Cranial Nerve Palsy at the Singapore National Eye Center*, Singapore Medical Journal 1999, Vol 40(6): 405-409. He is a recipient of the 1999 Distinguished Service Award of the Asia Pacific Academy of Ophthalmology (APAO) and the 1980 Singapore President Scholarship. (Associate Professor Vivian Balakrishnan, Singapore National Eye Center, 11 Third Hospital Avenue, Singapore 168571, Phone (65) 3228-323, Fax: (65) 2277291, e-mail: vivianbala@nus.edu.sg) (SM)

Baley (also BAYLEY and BAILY), Walter (1529-1592-3) British physician born in Dorset, England, and educated at Oxford University, where he became a professor of medicine in 1561. He enjoyed a large practice, and was made physician to Queen Elizabeth. He wrote:"*A work touching the preservation of the sight* " London, no date, and "*A briefe treatise touching the preservation of the eie sight, consisting partly in good order of diet, and partly in use of medicines*." London 1586. Concise Dictionary of National Biography (Oxford 1901), American Encyclopedia of Ophthalmology, Vol.2,pp.864. Albert, GM 5819

Ball, James Moores (1863-1929) American ophthalmologist. Ball was born in West Union, Iowa, and died in Saint Louis. He was graduated in medicine from the university of Iowa and continued his studies in the United States and in Europe. Teaching occupied much of his time as a young man, he having been professor, of ophthalmology in the old College of Physicians and Surgeons in Saint Louis. Undoubtedly he was best known because of his *Modern ophthalmology* 1904, 6th edition 1927, an excellent and comprehensive textbook. Countless hours were spent in the compilation of this work and it was a subject dear to his heart. He was wont to speak of it affectionately as "the book", and it was hard to interest him in other things at such times as the publishers were demanding a new edition. Early in his work the historical side of medicine appealed to him, and his studies made him an authority on this subject and enabled him to enrich medical literature by such contributions as "*Andreas Vesalius, 'reformer of anatomy*", published for private distribution in 1910, and "*The sack-´em-up men*" published in Edinburgh 1928 (reprinted 1989 in New York under the title: *The Body Snatchers: Doctors, Grave Robbers And The Law*). An almost completed work "*Art and anatomists*" was occupying his attention at the time of his death. As a natural outgrowth of his love for antiquity he developed a taste for collecting books and specimens related to ophthalmology. He donated his extremely valuable collection of ophthalmological material to, the Army Medical Museum in Washington, where it is was housed in a room known as the James Moores Ball room, devoted entirely to this purpose. Books, charts, specimens, plates, letters and autographs filled that room. Rare old books were his especial hobby, and he donated several hundred of these to the Saint Louis Medical Society shortly before his death. He received many honors during his life but of these he valued most his election as an honorary member of the Ophthalmological Society of the United Kingdom. AJO 1929,12:424-426; JPW

Ballantyne, Arthur James (1876-1954) Scottish ophthalmologist, who was born and educated in Glasgow where he remained throughout his long professional life. He graduated M.B., Ch.B. at the University of Glasgow in 1898 and thereafter became the first house physician to Dr. T. K. Monro, who had just been promoted to the senior staff of the old Glasgow Royal Infirmary. He maintained his medical associations with T. K. Monro, and John Cowan all through his active clinical years. His term as house surgeon was spent with John Barlow, who was also an extramural teacher of physiology. Such dual appointments were possible in those less highly specialized days, and Ballantyne continued this tradition by teaching physiology in Anderson's College; his predecessor in this appointment was another ophthalmic surgeon, Ernest Thomson. At the end of the 19th century the University of Glasgow contained within its walls many very remarkable people. John Caird. Gilbert Murray (the sole survivor), Sir Henry Jones, Lord Kelvin, Sir William Gairdner, Sir William Macewen, and George Buchanan, who had been a civil surgeon to the Army in the Crimea, were among the men whose influence remained potent



throughout Ballantyne's life. On the centenary of the discovery of the ophthalmoscope he remarked that he had celebrated the jubilee of his own use of the instrument several years before. His first ophthalmic teacher was Thomas Reid, who had been a pupil of William Mackenzie, but the greatest and most far-reaching influence was that of George Coats. In 1901 Ballantyne graduated M.D. and the subject of his thesis was *contusion injuries to the eyeball*; in 1906 he was elected to the Fellowship of the Royal Faculty of Physicians and Surgeons of Glasgow. His first papers, written in collaboration with Ernest Thomson, were presented as card specimens to the 0hthalmological Society of the United Kingdom, which he joined in 1903. A long review article on the pupil was published in the Ophthalmoscope in 1909 and a most detailed article upon the pulsation of the retinal arteries in 1913. As a young man Ballantyne became a member of the British Medical Association and the Royal Society of Medicine; he lived to become President of the appropriate section of both these national bodies as well as President of the Ophthalmological Society of the United Kingdom. He was a foundation member of the Oxford Ophthalmological Congress and the Scottish Ophthalmological Club of which he was also President. This Club, which originated in the drawing room of his friend Ernest Thomson, was designed to improve the social and professional relationships of ophthalmologists in Scotland, all objective which it certainly achieved. He was for many years the secretary of the Fin de Siècle Club, which was open to medical graduates of the years 1895-1899 and in the terms of its constitution was based upon loyalty to the University of Glasgow and its Medical School. Until quite late in his life he served upon the editorial committees of the Glasgow Medical Journal, the Ophthalmoscope, Ophthalmologica, and the British Journal of Ophthalmology. The first world war upset many of his hopes and plans. In August, 1917, he was appointed ophthalmic surgeon to the 67th General Hospital in Salonica, and after the war resumed his private practice in Glasgow and his devotion to the Glasgow Eye Infirmary. In 1920 he was appointed Lecturer in Ophthalmology to the University of Glasgow, and when the Chair of Ophthalmology came into being in 1935 he became the first professor, as well as the first director of the Tennent Institute of Ophthalmology. Ballantyne held this office for only 6 years before he retired in 1941 under the age-limit rules, and the university conferred upon him the title of Emeritus Professor and the honorary degree of LL.D. The quinquennia before and after his official retirement formed the most active and fruitful period of his life. From 1936 until 1948 he served on the Board of Management of the Glasgow Eye Infirmary and the Royal Hospital for Sick Children. He continued to work as consulting ophthalmic surgeon to the Glasgow Royal Maternity and Women's Hospital, a position which he had held since 1915. He lectured in Basel, in the United States of America, and in Eire. He gave the Doyne lecture in 1946 on the *state of the retina in diabetic retinitis*, a subject which he had studied in great detail, and in 1950 he was awarded the Edward Nettleship Prize. He collaborated with Professor Michaelson and Professor →Loewenstein in the study of retinal minutiae, and was a strong advocate of the meticulous correlation of clinical and pathological data. The resources of the Tennent Institute were designed with this objective in view, and he did his utmost to live up to the high ideals which he had set himself. He wrote, with Isaac C. Michaelson (Jerusalem) a *Textbook of the Fundus Oculi* Edinburgh 1962. BJO 1955,39:63.JPW

Balthasar, Theodor (end 17th,early 18th cent.,) German physician and professor of mathematics and medicine at Erlangen, Germany.Balthasar wrote:"*Micrometria de micrometrorum, tubis opticis seu telescopiis*" Erlangen 1710. Albert

Baltz, Theodor Friedrich (1785-1859) German physician who served as a military surgeon in the Prussian army. After the campaign of 1815, he completed his medical studies and received his M.D. at the University of Heidelberg in 1816. Baltz's doctoral thesis was: "*De ophthalmia catarrhali bellica Praemittitur Francisci Caroli Naegele*" Heidelberg 1816. He later published a more elaborate work on the subject which won a prize from the Utrecht Society of Arts and Sciences. Albert

Banaji, Burjor P. (1958-) Indian Ophthalmologist, Consultant Ophthalmic Surgeon. Banaji graduated from Grant Medical College, Bombay, in 1981 and received postgraduate training in St. George Hospital, Grant Medical College, Bombay Hospital and Tennent Institute of Ophthalmology, Glasgow and Gartvaval General Hospital in Glasgow. In 1987, he received Diploma of Ophthalmology from Royal College of Surgeons of England, of Glasgow and from Royal College of Physicians and Surgeons in Ireland. He also received Master of Surgery from the University of Bombay in 1988. He served as Honorary Ophthalmic Surgeon at Masina Hospital Bombay (1989-1992), and is in service as Consultant Ophthalmic Surgeon Parsi General Hospital Bombay (1989-), at Tata Institute of Fundamental Research (1990-) and Breach Candy Hospital (1997-). He specializes in the anterior segment surgery and Ophthalmic laser technologies and gave many lectures and courses in this field, both at National and International Meetings. He has been guest lecturer at Massachusetts Eye and Ear Infirmary, Boston, in 1996, at University of Alabama and Moorfield Eye Hospital, London. He developed many surgical instruments, e.g. Banaji LASIK Shield, speculum, Banaji LASIK marker etc. (Navsari Building 240 Dr. D. N. Road, Bombay-400 001, India. phone: +91-22-207-8823, fax: +91-22-203-5653) (SM)

Bangerter, Alfred (1909- ?) Swiss ophthalmologist. University lecturer University of Bern 1944. Honor. professor since 1956. Director of the St.Gallen Eye Clinic since 1946. Director of the School for Pleoptics and orthoptics. Member of the Swiss Academy of Sciences, of the German Academy Leopoldina, of the Europ.Schielrat (European Squint Committee). Bangerter´s main fields where plastic ophthalmo-surgery, surgery of eye muscles , pleoptic & orthoptics. He wrote:"*Behandlungen von Augenkrankheiten*" 1946, 2nd.ed.54; "*Amblyopie-behandlung* "1953, 2nd ed 1955." *Wann - Was ?*"(What-When?) 1958; "*Amblyopie prophylaxe d. anomale Korrespondenz*". Countless articles in *Ophthalmologica* (Basle) and *Klinische Monatsblätter f. Augenheilkunde.*. Kürschners Gelehrten- Kalender 1966,p.76.

Banières, Jean (born 1700) French philosopher. *Examen et réfutation des Élemens de la philosophie de Neuton de M. Voltaire, avec une dissertation sur la réflexion & la réfraction de la lumière*. Paris 1739. Albert

Richard Banister

Banister, Richard (1570? - 1626) English. Oculist. Published in 1622 a translation of →Guillemeau´s *Traité de l´Oeil*(1585): *"A Treatise of one hundred and thirteene diseases of the eyes."* He was the *first* to note the hardness of the eyeball in glaucoma.Concise Dictionary of National Biography (Oxford 1901), American Encyclopedia Ophthalmology,2,pp.879-880. Albert; [GM 5820]

Bankart, James(1834-1902) Famous English ophthalmic surgeon.Studied at Guy's Hospital, afterwards Anatomical Demonstrator. Later surgeon at the West of England Eye Infirmary. American Encyclopedia of Ophthalmology.

Bankes, James Leshe Kennerley (1935-1993). British ophthalmologist. James Bankes was born in Romiley, Cheshire, on 10 March 1935, the son of Reginald and Alice Bankes, who were both pharmacists. He was educated at King's School Macclesfield, King Edward VII School, King's Lynn, and the City University, London, before entering St Mary's Hospital Medical School where he won the physiology prize and qualified in 1961.After junior appointments at St Mary's and the Whittington Hospitals he became senior house officer at the Western Ophthalmic Hospital, and then rose up the ladder at Moorfields Eye Hospital. He was appointed consultant ophthalmic surgeon to St Mary's Hospital, Paddington, the Western Ophthalmic Hospital and St Luke's Hospital for the Clergy. Later he became ophthalmic surgeon to the Royal Naval Officers' Association. secretary to the Ophthalmic Society of the United Kingdom and sub-dean at St Mary's Hospital Medical School. His publications included important contributions in ophthalmology, such as *Clinical ophthalmology.. a text and colour atlas* (1985) and *Sports Eye Injuries*. In 1991 James Bankes was appointed Master of the Worshipful Company of Spectacle Makers of London. His other interests included painting in oils, opera, theatre, wine, bookbinding, and collecting eighteenth century furniture and silver. Bankes received following titles: MRCS 1961; FRCS 1967; DO Eng 1965; FCOphth 1989; MB BS London 1961; LRCP 1961.LFRCSE

Banks, Martin S. (?-) American scientist. Banks studied at the Occidental College from 1966 to 1970, and received his B.A. in Psychology. His M.A. (in Experimental Psychology) was granted to him at the University of California, San Diego (1971-1973), the Ph.D. (in Developmental Psychology) at the Univ. of Minnessota (1973-1976), University of Texas at Austin (1976-1982), Assistant Professor of Psychology; (1982-1984), Associate Professor, University of California at Berkeley (1984-1989), Associate Professor of Optometry; (1989- present), Professor of Optometry; (1985-present), Adjunct Professor of Psychology. University of California at Berkeley, Chairman of the Vision Science Program (1995- present).Publications: Ernst, M.O., Banks, M.S., Bülthoff, H.H. *Touch can change visual slant perception* (2000).Nature Neuroscience, 3,1,69-73. Backus, B.T. & Banks, M.S.(1999). *Estimator reliability and distance scaling in stereoscopic slant perception*. Perception, 1999, 28, 217-242. van Ee, R., Banks, M.S., Backus, B.T. *An analysis of binocular slant contrast*. Perception (1999), 28, 1121-1145. Backus, B.T., Banks, M.S., van Ee, R., Crowell, J.A. *Horizontal and vertical disparity, eye position, and stereoscopic slant perception*. Vision Research, 39 (1999) 1143-1170. van Ee, R., Banks, M.S., Backus, B.T. (1999). *Perceived visual direction near an occluder*.Vision Research, 39, 24, 4085-4097. Banks, M.S. & Backus, B.T. (1998). *Extra-retinal and perspective cues cause the small range of the induced effect*. Vision Research, 38, 187-194. Banks, M.S., van Ee, R., & Backus, B.T. (1997). *The computation of binocular visual direction: A re-examination of Mansfield and Legge* (1997). Vision Research, 37, 1605-1610. Marty Banks' Lab, University of California, Berkeley, Vision Science, 361 Minor Hall, Berkeley, CA 94720-2020 . Tel (Laboratory) : (510)-642-7679; Marty Banks : (510)-642-9341; Fax:(510)-643-5109 (JPW)

Bárány, Ernst H. (1910-1991) Swedish Pharmacologist and Ophthalmologist. He was born in Vienna as the son of the Otologist and Nobel Laureate Robert Bárány and was qualified in Medicine at Uppsala and was awarded the Doctorate of Science in 1940. Primarily a basic scientist he had also a three years education in clinical ophthalmology. Professor and Chairman of Pharmacology at Uppsala 1949-1977. The department of Pharmacology became an international center of experimental Ophthalmology. Bárány was the inspiring leader of many young scientists among others eight future Swedish professors; in Ophthalmology, Physiology, Pharmacology, Neurology and in Anesthesiology. Bárány's contributions to the experimental ophthalmology has to a considerable extent deepened our knowledge of the regulation of intraocular pressure and aqueous formation and outflow. Many publications in this field include the following original papers: ″*Mode of action of pilocarpine on the outflow resistance in the eye of a primate (Cercopithecus ethiops)*, Friedenwld Lecture, Invest. Ophthalmol. 1: 712, 1962″,″*Simultaneous measurement of changing pressure and outflow facility in the vervet money by constant pressure infusion*. Invest. Ophthalmol.3: 135, 1964″, ″*A mathematical formulation of intraocular pressure as dependent on secretion, ultrafiltration, bulk outflow and osmotic reabsorption of fluid*. Invest. Ophthalmol. 2: 584, 1963″ and ″*Pseudofacility and uveo-scleral outflow routes. Some non-technical difficulties in the determination of outflow facility and rate of formation of aqueous humour*. Glaucoma Symposium Tutzing Castle, Karger, Basel, 1967″. For the excellence of his contribution, he received many International Awards and they are The Friedenwald medal 1962, the Doyne medal 1966, the Gullstrand medal 1982 – Honorary doctor at Bern University 1967. (by L. Berggren)

Baratta, Giovanni (?-1851) Italian physician of Milan. He was a physician at the military hospital of Milan and specialized in ophthalmology. He was the author of ″*Osservazioni pratiche sulle principali malattie degli occhi*. (2 vols.) Milano 1818 which was translated into German by Eduard Wilhelm Güntz: ″*Praktische Beobachtungen über die vorzüglichsten Augenkrankheiten*″ Leipzig 1822.Albert

Barbier, Joseph Jules (1767- ?) French Philanthropist born in Valenciennes.Joined the revolutionary army in America.Founded a reading system for the blind with dots. This system was later adopted by →Braille. American Encyclopedia of Ophthalmology, 2, pp.881.

Barde, Jules Auguste (1841-1915) French ophthalmologist. He studied under Albrecht von Graefe in Berlin and became assistant to E.Meyer in Paris. In 1869 he established a private eye clinic in Geneva. Barde became 1874 director of an institution for the free

treatment of eye diseases founded by Baron Adolphe de Rothschild at Geneva. He received a call for the 1876 founded chair of ophthalmology in Geneva, but preferred to retain his position at the Rothschild Institution.The Ophthalmoscope, 1915,p. 164.

Bärensprung, Friedrich Wilhelm Felix (1822-1864) German dermatologist. He was the first to indicate that herpes zoster ophthalmicus is confined to the distribution of the first and second branches of the trigeminus nerve. American Encyclopedia of ophthalmology 2,pp.883.

Barkan, Otto (1887-1958) American-Hungarian ophthalmologist. He was the son of Dr. Adolph Barkan, a Hungarian who was one of the original staff in the Eye, Ear, Nose and Throat Department of Stanford University School of Medicine. The son followed in the footsteps of his father, and in his medical education he travelled widely. He studied at Trinity College, Oxford, obtained the B.A. degree in 1909, graduated in medicine in Munich in 1914, and later served as a house-physician in St. Mary's Hospital, London, and became a member of the Royal College of Surgeons of England. His essential eye training was received at Munich and Vienna. Returning to San Francisco in 1920, he became a member of the Faculty at Stanford University where he worked for the remainder of his professional life, practising ophthalmology in San Francisco. He gained a world-wide reputation by his studies on glaucoma and was a pioneer in stressing the importance of the width of the angle of the anterior chamber in the differential diagnosis between closed-angle and simple glaucoma. He will always be remembered for the introduction of the operation of goniotomy (trabeculotomy) in the congenital form of this disease, a technique which has revolutionized the prognosis of this intractable condition in many cases. In his life-time, Otto Barkan's achievements were duly recognized and his professional interests and contacts were world-wide; apart from being a member of many American Societies, he was a member of the British, French, and Belgian Ophthalmological Societies. He received the Howe Medal in 1954. BJO 1958,42:512; AJO 1958,46:101-102

Barraquer, Ignacio (1884-1965) Spanish ophthalmologist who had practiced and contributed to the advancement of ophthalmology for 57 years. The influence of his work and the activities of the Instituto Barraquer have made his name well known over the world. Born in Barcelona, he developed an early interest in the eye under the influence of his father, José Antonio→Barraquer-Roviralta who was an eminent ophthalmologist and the first lecturer on practical ophthalmology in Barcelona. In 1907, he was graduated with honors and obtained, one year later, his medical degree from the University of Barcelona Medical School. In addition to this, he had received a special training in physics and chemistry. He initiated his ophthalmologic practice as a physician at the Hospital de la Santa Cruz y San Pablo where he was later put in charge of the Ophthalmic Service. At the same time, he was his father's closest associate in his private practice which he continued after his father's death. At the university of his native city, he first taught as an associate lecturer, then held for some time the chair of ophthalmology and, in 1933, was appointed free-lance lecturer. These activities might have passed unnoticed outside the frontiers of his country had he not presented the ophthalmologic world with one of the essential advances in lens surgery: a procedure for intracapsular cataract extraction by pneumatically grasping the lens with a small suction cup of regulatable vacuum which he first published in 1917, naming the technique phakoeresis and the instrument erisophake. The interest which this new method evoked throughout the world brought many visitors to his service in Barcelona and made him a solicited guest at ophthalmologic meetings. During this period of extensive traveling abroad, he also visited the United States in 1922 and demonstrated his surgical technique in Washington, Philadelphia, New York, Boston and Richmond. He became familiar with the work of all the outstanding ophthalmologists of that time and with the organization and equipment of the then most famous eye centers. Being a man with a practical mind, keen on innovation and perfection, he realized that the knowledge and experience he had accumulated could best be used to the benefit of all in a modern ophthalmologic center of his own conception, and he converted this ideal into reality by personally planning and supervising the construction, installations and equipment of the clinic that bears his name. Inaugurated in 1941, this extraordinary center in which he omitted nothing that could contribute to the patients comfort and to efficient clinical and surgical teamwork, was completed by him in 1947 with the creation of the Barraquer Institute which made his

experience available to others by means of annual postgraduate courses for theoretic and practical training, residencies, publication of ophthalmic literature and edition of scientific films. But most important, he made sure that this center always remains open to new ideas by initiating a series of International Courses which licit an ever-increasing interest all over the world. But, although his name will remain linked to cataract surgery, his interests and contributions covered every field of ophthalmology. He produced innumerable writings on the most varied subjects, and countless honors were bestowed upon him, of which the Couder Prize, the Great Cross of Alfons X the Wise, the Gold Medal for Merit in Work, and his nomination as an officer of the French Légion d'Honneur are but a few examples. The last act he did was the donation of his eyes. AJO 1965,60:548-549

José Barraquer by Paul Henkind

Barraquer, José I. (1916-1998)
José Barraquer is widely acknowledged to be the father of refractive surgery. He was born in Spain, but moved to Bogota, Colombia, where he founded the renowned Barraquer Institute of America. Although Barraquer made many important contributions to ophthalmology, his life's work was dedicated to the idea of reshaping the cornea to change the eye's refractive power. The procedures he developed and the instruments he designed laid the groundwork for photorefractive keratectomy (PRK) and laser in-situ keratomileusis (LASIK) and other modern vision correction surgeries. Barraquer continued to practice, invent and teach until his death.

Barras, Thomas Crawford (1921-1994). Scottish ophthalmologist. Thomas Crawford Barras came of a distinguished Glasgow medical family. His father, Williarn Barras, was President of the Scottish Society of Anaesthetists at the time of his death in a motoring accident in 1928, and his grandfather Thomas Crawford also practised as a doctor in Glasgow. Barras was born in Glasgow and educated at Glasgow High School and the University of Glasgow, where he qualified MB ChB in 1944. He trained at first in general surgery, but later moved to study ophthalmology at Glasgow Western Infirmary and the Termant Institute of Ophthalmology, Glasgow. He worked at the Glasgow Eye Infirmary and the Southampton Eye Hospital and was senior lecturer in the Department of Clinical Ophthalmology, Institute of Ophthalmology, London. He joined the Merchant Navy as a surgeon in 1945 and was a surgeon in the Royal Naval Volunteer Reserve from 1946 to 1950, in which year he transferred to the Royal Naval Medical Service, where he attained the rank of surgeon captain. Barras earned following titles: MRCS and FRCS 1965; MB ChB Glasgow 1944; DO 1960. LFRCSE

Barre, A. (? - ?) French ophthalmologist. He authored "*Du diagnostic des lésions profondes de I'oeil a I'aide de I'ophtalmoscope et des phosphènes*."Montpellier 1857.Albert

Barrier, Francois-Marguerite (1812- ?) French. Pediatrist, Surgeon & extractor of cataracts. Barrier received his MD in Paris and settled in Lyon where he became Professor of clinical surgery at the Preparatory School for Pharmacy and Medicine.He wrote articles on *Dislocation of the Lens; Transparent Staphyloma of the Cornea; A Bandage for Use After the Cataract-Operation,etc.* He was one of the first, if not the very first, to emphasise the importance of making most accurate visual tests after the cataract operation.American Encyclopedia of Ophthalmology,p.885-86.


Joseph Barth

Barrow, Isaac (1630-1677) English Philosopher, mathematician & theologist. Teacher and friend of Isaac Newton. He was born in London and studied in Cambridge. Under investigation during Cromwell´s time, he went to the orient 1655. Back in Cambridge he became 1661 professor for Greek and one year later professor in philosophy. 1664, Barrow was appointed *Lucasian-Professor* for Mathematics. 1669 his chair was assumed by his pupil →Isaac Newton, who also took over his lectures on optics. He became director of Trinity College and in 1675 Chancellor of the Cambridge University. He authored: "*Elements; the Whole Fifteen Books* London 1660 (which are Euclid´s *Elements*), second edition under the title "*Lectiones opticae & geometricae*" 1674 which had been revised by his pupil Newton. DSB, Albert; Concise Dictionary of National Biography (Oxford 1901).

Barth, Joseph (1745-1818) Austrian ophthalmologist, born on Malta, who studied medicine at the universities of Rome and Vienna. Barth became professor of

ophthalmology and anatomy at the Vienna University in 1773 and oculist to Emperor Joseph II in 1776; among his pupils was Adam→Schmidt and the famous G.→Beer, the "father of Austrian ophthalmology". He wrote: *Etwas über die Ausziehung des grauen Staares, für den geübten Operateur* Wien 1797 and "*Muskellehre*" Wien 1786, 2nd edition 1819. American Encyclopedia of Ophthalmology,pp.887-88. Albert

Bartisch, George (1535-1606) German barber and surgeon. He served three years apprenticeship in surgery and lithotomy. Itinerant oculist and surgeon through Saxony, Silesia & Bohemia, Bartisch was the first to practice the extirpation of the bulbus. He is the founder of modern ophthalmology. He published in Dresden 1583: "*Ophthalmodouleia, das ist Augendienst",* 2nd edition Frankurt 1584 (Rare!!), 3nd edition 1686 (with new plates). The *First* English edition appeared in 1996, translated by Donald L.Blanchard, Wayenborgh Ostend 1996). A french translation appeared in form of a Doctoral thesis in 1985. Several reprints were published in the second half of the 20th century (Masnou 1962, London 1966, Stuttgart 1977, New York 1981 and Hannover 1983). Bartisch also wrote a book on urology that was never printed in his life-time. A translation of this urology textbook by Donald Blanchard is in progress and due to be published by Wayenborgh/Ostend. American Encyclopedia Ophthalmology, Albert [GM 5817]. see also: Heinrich, Curt: *Die Lehre vom Star bei Georg Bartisch* (Jenaer medizin-historische Beiträge, Heft 6, Jena 1916); Koelbing, Huldrich M.: *Renaissance der Augenheilkunde 1540-1630*, Bern 1967. JPW

Bartley, George Brian (1955-) American ophthalmologist, born in Warren, Ohio. Bartley received his B.A. at Miami University (Oxford, Ohio) and his M.D. at the Ohio State University College of Medicine (Columbus, Ohio). After internship in Columbus, Bartley pursued residency training in ophthalmology at the Mayo Clinic (Rochester, Minnesota) under the supervision of, among others, Drs. Richard F. Brubaker, Thomas P. Kearns, and Robert R. Waller, M.D.. Subspecialty training in oculoplastic and orbital surgery was obtained at Wright State University (Dayton, Ohio), working with Dr. John D. Bullock. Bartley joined the Department of Ophthalmology at Mayo Clinic Rochester in 1986. He was appointed Department Chairman in 1992 and served in this role until 2001, when he was elected to the Mayo Board of Governors. Bartley was author or coauthor of more than 150 papers between 1985-2000, the most notable of which were his thesis for the American Ophthalmological Society on the epidemiology of Graves' ophthalmopathy and his thesis for the American Society of Ophthalmic Plastic and Reconstructive Surgery on acquired lacrimal drainage obstruction. Bartley is Editor-in-Chief of *Ophthalmic Plastic and Reconstructive Surgery* and an editorial board member of *Ophthalmology* and *The American Journal of Ophthalmology*. Additionally, he is a Director of the American Board of Ophthalmology, a member of the Orbital Society, and was President of the Cogan Ophthalmic History Society from 1997-2000. Address: George B. Bartley, M.D., Department of Ophthalmology, Mayo Clinic, Rochester, Minnesota 55905. Tel: 507-284-8538 Fax: 507-284-4612 e-mail: gbartley@mayo.edu (AB)

Barton, Amy S. (1841-1900) American. First woman physician in Pennsylvania. She graduated in medicine in 1874 at the *Woman´ Medical College* and became soon clinical professor of ophthalmology at the same college. She was for a certain time District Physician,for many years one of the consulting staff of the West Philadelphia Hospital for Women and assistant at Wills Eye Hospital.American Encyclopedia of Ophthalmology, Vol.2, p.896-898

Basedow, Karl A. von (1799-1854) German. Physician, surgeon and ophthalmologist. Received his MD in Halle and settled in Merseburg.He wrote articles in Walther´s *Journal der Chirurgie und Augenheilkunde,* & Wochenschrift der Heilkunde. His fame is based on his article "*Exophthalmos*" in Walther´s Journal der Chirurgie und Augenheilkunde. American Encyclopedia of Ophthalmology, pp.899-901. [GM 3816).]

Baseilhac, Jean (1703-1781) French. Was for a time student of surgery at the Hôtel Dieu at Lyons.He entered the ecclesiastical order of Bernardines at Paris under the name of brother *Jean de Saint Côme* where he continued to practice surgery. He became celebrated as oculist & cutter of stone. He made several improvements of ocular instruments and operations. American Encyclopedia of Ophthalmology,pp.908. [GM 4285]

Batten, Frederick Eustace (1866-1918) British, London ophthalmologist, especially renowned for his researches in familial diseases of the eye. Born at Plymouth, England, he received his training in the liberal arts at Westminster and at Trinity College, Cambridge: and his medical education at St. Bartholomews Hospital, London. He was a member of the Council of the Ophthalmological Society of the United Kingdom from 1904-'06 and Secretary from 1906-'09.AJO 1919,2:163-165

Baudens, Jean Baptiste Lucien (1804-1857) French military surgeon, received his M.D. at Paris in 1827. As surgical officer in the French army serving in Algeria (1830-1841), he founded a hospital, where he taught surgery and anatomy. After he returned to France, he became chief surgeon at the hospital of Val-de-Grace. Baudens was one of the early performers and advocates of the strabismus operation; he recommended simultaneous tenotomy of several muscles of the same eye, an approach which was later rejected. Among other surgical works, he wrote: ″*Leçons sur le strabisme et le bégaiement faites à l'Hôpital Militaire du Gros-Caillou*″ Paris 1841.Albert.

Baudry, Sosthène (1849- ?) French ophthalmologist who wrote : «*De l'anesthésie en chirurgie oculaire*». Paris 1885. Albert

Antonius Franciscus Bauduin

Bauduin, Antonius Franciscus (1820-1885) Dutch Military Surgeon and Ophthalmologist. Teacher of Medicine in Japan, 1862-1870. He graduated from the Military Medical College in Utrecht in 1843 and was granted the Doctor of Medicine in Groningen University in 1845, then served as a military surgeon: he was promoted to a teacher at Utrecht Military Medical College in 1847. He was a good friend of C.F. Donders and both of them attended the *First International Congress of Ophthalmology* held in Brussels in 1857. He was then invited by the Tokugawa Government of Japan to teach Medicine in Nagasaki in 1862, when he brought Helmholtz´s Ophthalmoscope and taught its use. He made a contract with the Tokugawa Government to build a new Medical School in Edo (now Tokyo) and came home for its preparation in 1867. During his absence, the Tokugawa Government was terminated and a new Government was established in 1868 under the Emperor Meiji (the Meiji Restoration). On his return to Japan, the new Government asked him to teach medicine at Osaka Medical School and also at a new Military Medical School in Osaka, where he stayed until June 1870. On his way home, the Meiji Government asked him to teach Medicine at Tokyo Medical School (now Tokyo University) and he stayed in Tokyo until October of that year. There remain many notes of his lecture, and we can find that he taught the most up-to-date Ophthalmology of that time. The record of his attendance at the International Congress of Ophthalmology is as a Dutch delegate at the first Congress, but at the 2nd, 3rd, 4th Congresses he was recorded as ″ au Japon ″: thus he was the first delegate of Japan to the International Congress of Ophthalmology. In 1880, the Emperor granted him the National Order of Merit for his outstanding service in Medical Education in Japan. (SM)

Baum, Jules L. (1931-) American ophthalmologist and research scientist. Born in Brooklyn, New York. Baum received an A.B. from Dartmouth College in 1952, an M.D. from Tufts University in 1956 and an M.S. in Ophthalmology from New York University School of Medicine (N.Y.U.) in 1962. Following a research fellowship at N.Y.U. from N.I.H., he completed his residency in Ophthalmology in 1965 at N.Y.U.-Bellevue. He then worked under Claes H.→Dohlman at the Massachusetts Eye and Ear Infirmary and Corneal Unit, Retina Foundation, Boston as part of a 1 year N.I.H. Corneal Fellowship. After returning to N.Y.U. as an Assistant Professor, he returned to Tufts-New England Center Hospital, Boston in 1968 for the remainder of his full-time academic career, achieving a full Professorship in 1974. Baum received the W.W.Hoppin , N.Y. Acad. Med. Award (1959), the Amer. Acad. Ophthalmol. (AAO) Honor (1979) and Senior Honor (1990) Awards, the Alcon Research Institute Award (1991) and was the Castroviejo Corneal Medallist in 1997. He served on the AAO Board of Councillors, 1981-83 and was Corneal Trustee (1985-85) and Vice-President of ARVO. Baum also served as Executive Sect. -Treas. (1979-87), Vice-Pres. (1987-89) and Pres. (1990-92) of the Castroviejo Corneal Soc. and was President of the Ocular Microbiology Immunology Group (1989-1991). He was a member of other state, national and international committees and served on the Editorial Boards of Invest. Ophthalmol. Vis. Sci (1978-83), Am. J. Ophthalmol. (1985-91), Cornea (1989-98) and Ophthalmol. Surg (1985-95).

Currently, he is a consultant to Medical Letter, A.M.A. Drug Evaluations, and the U.S. Pharmacopoeial Convention and is a Fellow of the Royal College of Ophthalmologists. Baum's research interests are broad and encompass both basic science and clinical investigations in corneal pathology and pathophysiology (*Castroviejo Medal Lecture*, Cornea 1997; 16: 602-611), *corneal infections/ antibiotic pharmacokinetics* (New Eng. J. Med. 1978; 299:28-31), *corneal biochemistry* (J. Clin. Invest. 1979; 634: 545-551 with B. Yue) and *dry eye/tear physiology* (Ophthalmology 1980; 87:920-930 with A. Jordan). Baum enjoys food and wine and is a Commandeur in the Conferie des Chevaliers du Tastevin and is a member of the Chaine des Rotisseur and the International Wine and Food Society.(JPW)

Baumgarten, Friedrich Moritz Oswald (1813-1849) German surgeon born in Arnsdorf, Germany. Baumgarten became a famous plastic surgeon of Dresden, often collaborating with Ammon in his research and writing (Articles in *von Ammon´s Monatschrift* 1838). In ophthalmology, he wrote "*Das Schielen und dessen operative Behandlung*" Leipzig 1841 which is an early textbook on strabismus.).American Encyclopedia of Ophthalmology,pp.914; Albert

Bavaria, Archduke of *see* **Karl Theodor, Archduke of Bavaria**

Bayer, Josef (1847-1925) of Vienna, was trained in both human and veterinary medicine. He taught surgery at the military hospital in Vienna, graduating later, in 1874, in veterinary medicine. His main interest was recurrent uveitis of the horse. Bayer helped to found a school of veterinary medicine in Vienna(becoming its first director in 1897) and started collecting hundreds of eyes postmortem and also founded an ophthalmological museum that became, later, famous under the direction of Otto Überreiter, another veterinarian ophthalmologist. Among other surgical works, he published: "*Bildliche Darstellung des gesunden und kranken Auges unserer Hausthiere.*" Wien 1892.

Bayley,Walter *see* **Bailey**.

Beach, Sylvester Judd (1879-1953) American ophthalmologist, born in Dedham, Massachusetts. He graduated from Exeter Academy. He received his A.B. degree from Harvard College in 1901 and his medical degree from Harvard Medical School in 1905. Beach's training as a physician and ophthalmologist was of the highest caliber. From 1904 to 1906, he was surgical house officer at the Boston City Hospital and in 1906 was house physician at the Boston Lying-in Hospital. The next year, he commenced a residency at the Massachusetts Eye and Ear Infirmary. With this excellent preparation for his life's work, he established a private practice in Augusta, Maine, in 1909, moving to Portland in 1920. He was ophthalmic surgeon at the Maine Eye and Ear Infirmary and served as staff president from 1946 to 1948. Other appointments included: chief ophthalmologist of the Portland City Hospital and the Maine General Hospital, membership in the Maine State Department of Health from 1916 to 1924, and oculist to the Medical Advisory Board during the first World War, serving in this capacity from 1916 to 1918. He was a past president of the New England Ophthalmological Society and of the Portland Medical Club. Locally, nationally, and internationally, Judd Beach was recognized as an outstanding leader of ophthalmology and, because of this, he was honored by many ophthalmological organizations. In 1939, he served as chairman of the Section on Ophthalmology of the American Medical Association and, in 1944, as president of the American Ophthalmological Society, having previously been elected vice-president and a member of the council. From 1932 to 1935, he was a member of the Council of the American Academy of Ophthalmology and Otolaryngology. Beach was also a fellow of the American College of Surgeons. His wide range of interests included the Association for Research in Ophthalmology, in which he was an active member of the commission for several years; and the Foundation for Vision, serving as vice-president from 1944 to 1945. He was a co-founder with Walter Lancaster of the Ophthalmological Study Course in 1945, and he continued as a member of its executive committee until 1948. He was deeply devoted to the work of the American Board of Ophthalmology and served as an active member from 1930 through 1948. He was elected secretary of the board in 1944 and sacrificed much of his energy and time in performing these duties until his illness in 1948. In addition to his heavy practice, Beach made time to contribute numerous important monographs to medical literature and wrote a splendid textbook on the principles of

refraction (*Principles of Refraction*, St.Louis 1952). The examination of the eye was a subject dear to his heart and he contributed the chapter, "*Routine examination of the eyes*," to Conrad Berens´ *The Eye and Its Diseases*.AJO 1953,36:725-726.JPW

Beale, Lionel Smith (1828-1906) British professor of medicine, physiology, and pathological anatomy at King's College, London (1853-1876). He invented,in 1860, Beale's ophthalmoscope for examining the ocular fundus without darkening the room. He also wrote a textbook on microscopy:"*The microscope and its application to clinical medicine.*" London 1854, in which he gives instructions for the microscopic examination of the cornea, retina, and crystalline lens. Albert; Schett 253.

Beard, Charles Heady (1855-1916) American ophthalmologist. Beard was surgeon to the Illinois Charitable Eye and Ear Infirmary and ophthalmic surgeon to the Passavant Memorial Hospital. He was a member of the American Ophthalmological Society, the American Academy of Ophthalmology and Oto-Laryngology and the American Chicago Ophthalmological Society. He wrote sections of *Pyle's International System: " Ophthalmic Surgery "* in 1910 and *" Ophthalmic Semiology and Diagnosis "* in 1913. The Ophthalmoscope,1916,p.226-227

Beck, Bernhard (1821-1894) German physician born in Freiburg. Beck studied in Freiburg and in Heidelberg, and was assistant to Caspar Stromeyer. He became a lecturer in anatomy at Freiburg, but in 1848 took up a career as a military surgeon.He wrote: *Über die Verbindungen des Sehnerven mit dem Augen- und Nasenknoten, sowie über den feineren Bau dieser Ganglien*. Heidelberg 1847.Albert

Beck, Karl Joseph (1794-1838) German physician of Freiburg, who studied medicine in Freiburg and in Tübingen. He taught general surgery, obstetrics, and ophthalmology at the University of Freiburg; ophthalmic surgery was his particular interest and the subject of a number of his writings:"*Handbuch der Augenheilkunde*" Heidelberg 1823; *Sacra natalitia principis ... De oculorum mutationibus, quae cataractac operationem sequuntur* ... Freiburg i.Bresgau 1833; *Abbildungen von Krankheitsformen aus dem Gebiete der Augenheilkunde* Heidelberg und Leipzig 1835. Albert

Franz Josef von Becker

Otto Becker

Becker, Franz Josef von (1823-1890) Finnish Ophthalmologist of Helsinki, Finland. He graduated from the University of Helsinki and presented his MD thesis on "*Carbohydrate metabolism in living animals*" in 1853 He was appointed to the Chair of Pharmacology, Pharmacy and Medical Chemistry at the University of Helsinki. He was fascinated by the demonstration of Helmholtz ophthalmoscope at one of the national meetings, and he went to Germany 1857-1858 to study ophthalmology under the supervision of Albrecht von→Graefe. At Graefe's Clinic von Becker was known with the nickname "Sugar-Becker". He attended the first International Congress of Ophthalmology in Brussels 1857; after returning to Finland he fought hard for the foundation of the First Chair of Ophthalmology at the University of Helsinki. He finally succeeded and the chair in Helsinki was the very first one in all Scandinavian Countries. Von Becker was appointed to be the First Professor of Ophthalmology in 1871. He also succeeded in founding the first eye clinic in 1873. Von Becker had the Chair from 1871 until his retirement in 1885. He devoted his energy to the fight against trachoma, the main cause of blindness in Finland. Cataract surgery was performed by von Graefe's methods, and von Becker maintained a lively consultation service with von Graefe by mail. His further research consisted of embryology and microscopic structure of the human and vertebrate lens (Albrecht v Graefe's Archiv Ophthalmol 1863: 9, II. 1-42.). By his will he donated all his property for the founding of a school for the blind children. [by Ahti→Tarkkanen]

Becker, Otto Heinrich Enoch (1828-1890) German ophthalmologist born in Domhof, Germany, who received his M.D. at the University of Vienna in 1859. He was a pupil and later private assistant of Ferdinand→Arlt. In 1868 he became professor of ophthalmology at the University of Heidelberg, succeeding Hermann →Knapp. He developed "Becker's test for astigmatism and discovered "*Becker's sign*" the spontaneous pulsation of the retinal arteries. He translated into German F.C.Donders classic: *On the Anomalies of Accommodation and Refraction of the Eye* in 1866 and edited with C & J Heitzmann, R. Sattler and F. Veith the "*Atlas der pathologischen Topographie des Auges*" Wien 1874-1878; *Photographische Abbildungen von Durchschnitten gesunder und kranker*


ZUR

ANATOMIE

GESUNDEN UND KRANKEN LINSE

OTTO BECKER

WIESBADEN.

Augen. (3 vols.) Wien 1876; "*Zur Anatomie der gesunden und kranken Linse*" Wiesbaden 1883 and "*Jacques Daviel; Ein Gedenkblatt* " Würzburg 1888. American Encyclopedia of Ophthalmology,pp.918-920; Albert

Beer, Georg Joseph (1763-1821) Austrian ophthalmologist of Vienna, a pupil of→Barth, who opened the first known eye hospital, in Vienna in 1786. He became the most celebrated ophthalmic surgeon of his day and founded the "Vienna school of ophthalmology," whose disciples included→Ammon,→Jaeger and →Rosas, among many others. Beer devised the iridectomy, and was the first to describe the symptoms of acute glaucoma and to note the luminosity of the fundus in cases of aniridia. He wrote: "*Praktische Beobachtungen über verschiedene, vorzüglich aber über jene Augenkrankheiten*" Wien 1791; "*Praktische Beobachtungen über den grauen Staar und die Krankheiten der Hornhaut*" Wien 1791; "*Lehre der Augenkrankheiten*". (2 vols.) Wien 1792; "*Repertorium aller bis zu Ende des Jahres 1797 erschienenen Schriften über die Augenkrankheiten*." (3 pts. in 1 vol.)Wien 1799; "*Methode den grauen Staar sammt der Kapsel auszuziehen ... Verbesserungen der Staaroperaton überhaupt.*" Wien 1799; "*Pflege gesunder und geschwächter Augen, nebst einer Vorschrift, wie man sich bey plötzlichen Zufällen an den Augen*" Wien 1800; French edition: "*Moyens infaillibles de conserver sa vue en bon etat jusqu'a une extrême vieillesse, et de la rétablir et la fortifier lorsqu'elle s'est affaiblie* " Brussels 1802 (six further French editions appeared until 1819). Italian translation : "*Mezzi infallibili di conservare la vista in buon stato, fino ad una vecchiezza estrema di ristabilira, e fortificarla allorchè è indebolita*"Milano 1803; English edition:"*The art of preserving the sight unimpaired to an extreme old age* " London 1813; Dutch edition:"*Beproefde middelen en ernstige raadgevingen etc.* "Amsterdam 1836; Portuguese edition: *Arte de conservar a vista em bom estado ate' a estreme velhice* Lisboa 1828."*Ansicht der staphylomatösen Metamorphosen des Auges, und der künstlichen Pupillenbildung*. Wien 1805; "*Das Auge, oder Versuch, das edelste Geschenk der Schöpfung vor dem höchst verderblichen Einfluss unseres Zeitalters zu sichern*" Wien 1813; "*Lehre von den Augenkrankheiten, als Leitfaden zu seinen öffentlichen Vorlesungen entworfen*." (2 vols.) Wien 1813-1817; English edition, printed in Germany:"*A manual of the diseases of the human eye, intended for surgeons commencing practice from the best national and foreign works*" (2 vols. in 1) Berlin 1819; "*Ubersicht aller Vorfälle in dern öffentlichen klinische Institute für die Augenkrankheiten an der k. k. Universität in Wien*" . (5 pts.) 1813-1817;

Beevor, Charles Edward (1854-1908) British neurologist who devoted considerable attention to ophthalmology.He was secretary of the British Ophthalmological Society, later, 1902-04 vice-president of the same society of which he was one of the original members.Beevor was Croonian Lecturer of the Royal College of Surgeons in 1903 and Lettsomian Lecturer of the Medical Society of London in 1902. American Encyclopedia of Ophthalmology,pp.924. [GM 1416.1]

Beger, Johann Heinrich (1808-1885) German ophthalmologist of Dresden. Beger earned his medical degree at the University of Leipzig in 1833 and started an ophthalmology practice in his home city. He was mainly interested, and wrote on ocular trauma and ocular hygiene: "*De reactione traumatica iridis et anterioris capsulae parietis* ... Leipzig 1833 "*Das Auge von dem Standpunkte der Medicinal-Polizei*".. Heidelberg and Leipzig 1836; "*Das Blutauge oder die Blutergiessungen in das Auge und seine Schutz- und Hilfsorgane nach Form und Wesen pathologisch-therapeutisch dargestellt* " Brussels and Leipzig 1843. Albert

Belfort Jr, Rubens (1946-) Brazilian ophthalmologist. Belfort Jr. was born in São Paulo, Brazil. He graduated as an ophthalmologist in 1972 at the Paulista School of Medicine. He was fellow at the Proctor Foundation, University of California, San Francisco, USA during the years of 1974 and 1975. He presented his Master thesis "*Identification of Lymphocytes T and B in Follicular Conjunctivitis and at the Sjögren Syndrome*" in 1978. He presented

his Doctor thesis " *Experimental infection by S. typhimurium in guinea pig eye*" in 1981. Belfort Jr. presented his PhD thesis "*Cellular Immunity in Uveitis Patients*" in 1988 and graduated Livre-Docente in 1989 at the Paulista School of Medicine with the thesis "*Toxoplasmose Ocular*". He became full Professor in 1989 and is Head of the department of ophthalmology at the same school. He was admitted as Visiting Scientist with clinical and chirurgical privileges at the National Eye Institute, HIH, Bethesda, in 1990. Belfort Jr. is coordinator of post graduation courses in various schools and universities in Brazil. For his ophthalmologic activities in the years of 1977, 1979, 1981, 1985, 1987, 1988, 1993, 1997, and 1988 he received awards from the Brazilian Ophthalmic Congress, Archives and Council. In 1993, he received the Honor Award from the American Academy of Ophthalmology and in 1997 the Pan-American Medal for Distinguished Services. He is member of a great number of Medical councils, and is a member of the Academia Ophthalmologica Internationalis (chair XXXV), the São Paulo Medicine Academy and the International Uveitis Group. During his academic life, Belfort Jr. has published a great number of papers in almost all ophthalmologic areas, especially retina, cornea and uveitis. He is the author and co-author of various chapters of books published inside and outside Brazil and wrote the following books: "*Doenças Externas da Córnea*" (Corneal External Diseases), Roca, São Paulo, 1981; "*Oftalmologia em Clínica Medica*" (Ophthalmology in Medical Clinics), Roca, 1983; "*Uveites*", Roca, 1987; " *Proceedings of the Uveitis World Symposium*" Roca, 1989; "*Córnea*", Roca, 1996; "*Synopses en Uveites*", Ciba Vision, Mexico, 1997; "*Manifestações Oculares da AIDS*" (AIDS Ocular Manifestations), Ed Cultura Medica, 1999. (Antonio Jordao Jr)

Bell, Benjamin (1747-1806) Scottish surgeon. Studied medicine first in Edinburgh, later in nearly all the celebrated schools in Europe. He was appointed surgeon to the Royal Infirmary in Edinburgh and became later fellow of the Royal College of Surgeons of Edinburgh. He devoted a few hundred pages to ophthalmology in his "*System of Surgery*" American Encyclopedia of Ophthalmology,pp.925.

Charles Bell

Bell, Sir Charles (1774-1842) Scottish surgeon and anatomist born in Edinburgh who learned anatomy and surgery from his brother John, a surgeon. In 1804, Bell settled in London, where he practiced surgery, opened his own school of anatomy, and later (1812-1825) taught at the Great Windmill School of Anatomy, founded by William Hunter. His advances in the knowledge of the functional anatomy of the nervous system earned him a knighthood in 1831. He published, of ophthalmological interest: "*On the motions of the eye*" London 1823;"*The organs of the senses familiarly described*" London 1840.(of which the first eight chapters are devoted to the eye); "*Practical essays*". Edinburgh 1841.(Which contains Bell's essay on squinting and strabismus.). Albert

Belloc, Léon (?-?) French ophthalmologist who wrote : "*De l´ophthalmie glaucomateuse: son origine et ses divers modes de traitement*." Paris 1867.Albert

Belloste, Augustin (1654-1730) French surgeon, born in Paris, who earned fame as a military surgeon and author of treatises on surgery. From 1697 he was attached to the court of the Duchess of Savoy as her principal surgeon; he died in Turin. Belloste revived several ancient surgical methods. Of interest in ophthalmology is his "*Suite du chirurgien d'hôpital, contenant differens traitez, du mercure; des maladies des yeux & de la peste*" Paris 1725 which was translated into English : "*The hospital surgeon. Vol.2: Diseases of the eyes and the pestilence*" London 1733.Albert

Belmonte, Carlos (1943) Spanish Vision Scientist, Full Professor, University Miguel Hernandez Medical School, Department of Physiology, Campus de San Juan (Spain), (1997). He graduated from the University of Madrid Medical School, Madrid in 1966 with honors and received his M.D. degree. He extended his studies at the Department of physiology, University of Madrid Medical School, Madrid and received a Ph.D. with honors having written the best Doctoral Thesis in 1969 (*El control nervioso de la presión y la circulación intraoculares*, An. Ins. Farm. Esp. XVII-XVIII,77-332 (1968-1969). He received a NIH International Postdoctoral Fellowship and conducted research at the Department of Physiology, University of Utah, Medical College, Salt Lake City, Utah (USA), 1971-1973. His academic appointments have been Full Professor and Chairman, Department of Physiology Medical School, University of Valladolid, Valladolid (Spain),(1973-1980) and Full Professor and Chairman, University of Alicante Medical

School, Department of Physiology, Campus de San Juan (Spain), (1980-1997), then to the present position as above. Due to his expertise, he has served as Visiting Professor to many Universities in Spain and abroad, e.g., Visiting Scientist, Prince of Wales, Medical Research Institute, Sydney, Australia. Visiting Professor of Neurobiology, Harvard University, Boston, MA, USA (1997), Adjunct Professor of Ophthalmology, Univ. of Utah Medical School, Salt Lake City, UT (USA), (1986-), Associate Scientist, The Cooperative Research Center for Eye Research and Technology, University of New South Wales, Sidney, Australia (1990-), Visiting Senior Scientist, Eye Research Institute of the Retina Foundation, Boston, MA (USA), (1985-1986), Visiting Professor of Ophthalmology, University of Harvard, Boston, MA, USA (1985), Visiting Professor, University of Utah, Medical College, Department of Physiology, Salt Lake City, Utah (USA), (1975) and Visiting Research Assistant Professor, University of Utah, Medical College, Dept. of Physiology, Salt Lake City, Utah (USA), (1972-1973). He also gave many invited lectures at international meetings. He has been elected to many administrative positions of Institutions, and some examples are Director, Instituto de Neurociencias, University Miguel Hernández, Spain, (1997 -), Director, Instituto de Neurociencias, University of Alicante, Spain, (1990-1997), Dean, University of Alicante, Medical School, Alicante, Spain, (1983-1985) and Vice-president, University of Alicante, Alicante, Spain, (1980-1983). He has served as Editor of many scientific journals, e.g. Educación Médica (1998-), Experimental Eye Research (1990 -), Primary Sensory Neuron (1995-), The European Journal of Neuroscience (1989-), Sístole (1992-), Dolor (1994-), Revista Clínica Española (1986-), Revisiones de Biología Celular (1983-1987), Revista Española de Fisiología (1975 1998), Tempo Ophthalmol. (1998-) and inSight Editorial (1998-). He has held key positions in many National and International Scientific Societies, e.g. General Secretary of the International Brain Research Organization (IBRO) (1997-); Member of the Governance Committee (1996-1998), and Member of the Publication Committee (1996-1998) of the Association for Research in Vision and Ophthalmology (ARVO); Helen Keller Eye Research Foundation, Member of the Committee Helen Keller Prize (1994-); International Society for Eye Research, President (1992-1996), President-Elect (1990-1991), Secretary (1988-1991), Member of the Council (1985-1987), Academia Europaea Neuroscience Subject Committee (1994-), Section Committee for Physiology and Medicine to the President of Academia Europaea 1996; Sociedad Española de Neurociencias, President (1991-1993), President-Elect (1989-1991), Sociedad Española de Educación Médica, President (1987-1991), Vice-president (1982-1987), International Society on Arterial Chemoreception, Country Representative for Spain (1987-1993) and Member of the Instituto de Estudios Alicantinos, (1981 - 1983). His research areas are Sensory and autonomic innervation of the eye, ocular pain; nervous influences on aqueous humor dynamics and intraocular pressure, neurobiology of sensory receptors, (arterial chemoreceptors, baroreceptors, photoreceptors and nociceptors), interactions between sensory receptors and their target tissues, neurobiology of peripheral pain and neurogenic inflammation. He has published many original papers and contributed chapters to books, he edited books and wrote many books in his specialities. Some examples of his recent publications are ″ Acosta, M.C., Gallar, J., Belmonte, C. (1999). *The influence of eye solutions on blinking and ocular comfort at rest and during work at video display terminals*. Exp. Eye Res. 68:663-669″, ″De Felipe, C., González,G.G., Gallar,J.,Belmonte,C.(1999). *Quantification and immunocytochemical characteristics of trigeminal ganglion neurons projecting to the cornea: effect of corneal wounding*. Eur. J. Pain.3:31-39″, ″De Felipe, C, Belmonte, C. (1999). *C-Jun expression after axotomy of corneal trigeminal ganglion neurons is dependent on the site of injury*. Eur. J. Neurosci. 11:899-906″, ″Belmonte, C., Acosta, M.C., Schmelz, M., Gallar, J. (1999). *Measurement of corneal sensitivity to mechanical and chemical stimulation with a CO2 esthesiometer*. Invest. Ophtalmol. Vis. Sci., 40-2:513-519″ and″*Neurobiology of Nociceptors*, C.Belmonte, F. Cervero. Eds. Oxford University Press, (1996)″. For the excellence of his research and for his meritorious service, he received many awards and prizes: some examples are the Golden Medal of the University of Alicante, Alicante, Spain (1984), Prize ″Alberto Sols″ for a research career of the Valencian Community, Spain (1991), National Prize ″Rey JaimeI″ for Research in Neurosciences. (Presented by the King of Spain) (1992), First National Prize for a Research Career ″Cátedra Severo Ochoa″ (Awarded by the Ministry of Education and Science, Spain) (1995), National Prize on eye

research "Emilio Diaz Caneja", Universidad de Valladolid, Spain (1997), ALCON Award "*for the extraordinary contributions to the field of visual research*". ALCON Research Institute, USA (1997), International Prize "Endre A. Balazs on Ocular Research". Awarded by the International Society for Eye Research (1998), Recognition to the Biomedical Science in Spain. Fundación de Ciencias de la Salud (1998) and Recognition to the "Ordre National du Lion, République du Sénégal (1999). He is keen on education and directed many Ph.D. dissertations and also serves as a member of many Council and Committees of National and International Organizations including WHO. (Instituto de Neurociencias, Universidad Miguel Hernandez de Alicante, Apdo. 18, Campus de San Juan, E-03550 Alicante, Spain.Telephone: +34-6-591 95 30; Fax: +34-6-591 95 47; Email:carlos.belmonte@umh.es) (SM)

Belt, Edward Oliver (1861-1906) American. Medical education University of Maryland,degree 1886, resident physician Presbyterian Eye, Ear & Throat Hospital in Baltimore until 1888. He studied ophthalmology & otology in London, Paris , Vienna & Berlin. In 1889 Washington where he founded with others the Episcopal Eye, Ear and Throat Hospital. **S**hort time professor for ophthalmology and otology at Howard Medical School. President of the Society of Ophthalmology & Otology in Washington. He died in a railroad accident in Terra Cotta, (District Columbia) together with his two young sons. American Encyclopedia of Ophthalmology, Vol.II (1913)**.**

Ben Vengut de Salerno *see* **Grapheus**

Bendz, Jacob Christian (1802-1858) Danish military surgeon. Bendz received his M.D. at the University of Copenhagen in 1836 and served as staff surgeon in the Danish army during campaigns in Schleswig. He made important observations of military ophthalmia (trachoma): "*Quelques considérations sur la nature de l´ophthalmie militaire*" Copenhagen 1858.Albert

Benedek, George B. (1928-) American Physicist, Alfred H. Caspary Professor of Physics and Biological Physics, Massachusetts Institute of Technology, Member of the Faculty of the Harvard-MIT Division of Health Sciences and Technology. He received B.S. (Physics) from Rensselaer Polytechnic Institute, Troy, New York, in 1949 , A. M. (Physics) from Harvard University, Cambridge, MA. in 1952 and Ph.D. (Physics) from Harvard University, Cambridge, MA. in 1953. Subsequently, he served as Staff Member, Solid State Research Group, Lincoln Laboratory, Massachusetts Institute of Technology (1953 - 1955), Lecturer in Solid State Physics, Harvard University (1955 - 1957), Assistant Professor of Applied Physics, Harvard University (1958-1961), Associate Professor of Physics, Massachusetts Institute of Technology (1961-1965), Consultant in Physics to Cornea and Retinal Research Units, Retina Foundation, Boston, MA. (1968-1991), Lecturer in Physics, Faculty of Medicine, Harvard University (1975-1985), Professor of Physics, Massachusetts Institute of Technology (1965-1979) and he is Alfred H. Caspary Professor of Physics and Biological Physics, Massachusetts Institute of Technology (1979 - Present). He has fulfilled many professional and public duties, and some examples are Co-Chairman (with James Adelstein, M.D.) National Academy of Sciences and Institute of Medicine Committee to Promote Research Collaboration between the Physical Sciences and Engineering, and the Biological Sciences and Medicine, August 1987 - January 1990, Member Selection Committee to the Pisart Vision Award, New York Association for the Blind, January 1985 - September 1989, Member of the Vision Research Program Committee of the National Eye Institute, July 1983 - June 1987, Member of the Advisory Committee for Physics of the National Science Foundation, December 1, 1983 - November 30, 1986, Member of the Board of Editors, Biophysical Journal (1975 - 1978) and Member of the Governing Board, American Institute of Physics (1971 - 1974). His major research interest covers a wide area that embraces nuclear magnetic resonance, high pressure physics, semiconductor physics, shock waves, critical phenomena in ferromagnets and fluids, quaisielastic light scattering spectroscopy, theory of transparency of the eye, physico-chemical basis of lens opacification, enzyme physics, sol-gel transition for polyfunction molecules, self-assembly and growth of micelles, phase transitions in micellar and protein solutions, fibrillogenesis of beta amyloid, and the self-assembly of chiral amphiphiles into helical ribbons. Some examples of his books in these fields are: 1.*Magnetic Resonance at High Pressure*, John Wiley and Sons, New York (1963), 2.

Intraocular Light Scattering: Theory and Clinical Application (with David Miller), Charles C. Thomas, Springfield, Illinois (1973), 3. *Physics: With Illustrative Examples from Medicine and Biology*, (with Felix Villars) Volume I - Mechanics, Addison-Wesley, Reading, MA (1973), 4. *Physics: With Illustrative Examples from Medicine and Biology*, (with Felix Villars) Volume II - Statistical Physics, Addison Wesley, Reading, MA (1973), 5. *Physics: With Illustrative Examples from Medicine and Biology*, (with Felix Villars) Volume III - Electricity and Magnetism, Addison-Wesley, Reading, MA (1979), 6. Japanese Translation of *Physics: With Illustrative Examples from Medicine and Biology*, Volumes I, II, III. Translated by T. Matsubara, published by Yoshioka Shoten (1981), 7. *Physics: With Illustrative Examples from Medicine and Biology*, (with Felix Villars) Volume I: Mechanics, 2nd edition, Springer-Verlag, New York, NY (2000), 8. *Physics: With Illustrative Examples from Medicine and Biology*, (with Felix Villars) Volume II: Statistical Physics, 2nd edition, Springer-Verlag, New York, NY (2000) and 9. *Physics: With Illustrative Examples from Medicine and Biology*, (with Felix Villars) Volume III: Electricity and Magnetism, 2nd edition, Springer-Verlag, New York, NY (2000) . On the basis of his expertise in Physics, he has conducted extensive studies of the eye and published many papers. Some of the recent papers are: Canwen Liu, Jayanti Pande, Aleksey Lomakin, Olutayo Ogun, and George B. Benedek, "*Aggregation in Aqueous Solutions of Lens- crystallins: Special Role of Gamma s*", Invest. Ophthal. and Vision Sci. 39, 1609-1619 (1998); Neer Asherie, Jayanti Pande, Aleksey Lomakin, Olutayo Ogun, Stacy R.A. Hanson, Jean B. Smith and George B. Benedek, "*Oligomerization and Phase Separation in Globular Protein Solutions*", Biophys. Chem. 75, 213-227 (1998); George B. Benedek, Jayanti Pande, George Thurston and John I. Clark, "*Theoretical and Experimental Bases for the Inhibition of Cataract*", Progress in Retinal and Eye Research 18, 391-402 (1999); Aleksey Lomakin, Neer Asherie and George B. Benedek, "*Aeolotopic Interactions of Globular Proteins: The Effect on the Phase Diagram*", Proc. Nat'l. Acad. Sci. USA 96: 9465-9468 (1999) and Ajay Pande, Jayanti Pande, Neer Asherie, Aleksey Lomakin, Olutayo Ogun, Jonathan King, Nicolette H. Lubsen, David Walton and George B. Benedek, "*Molecular Basis of a Progressive Juvenile-Onset Hereditary Cataract*", Proc. Nat'l. Acad. Sci. 97: 1993-1998 (2000). He is a recipient of many honor awards that include the 1997 Proctor Medal Award by ARVO, The Association for Research in Vision and Ophthalmology (G.B. Benedek, "*Cataract as a Protein Condensation Disease*", The 1997 Proctor Lecture, IOVS 38, 1911-1921, 1997), Professeur Invité, Troisième Cycle de la Physique, En Suisse Romande, University of Lausanne, Institute of Experimental Physics, Lausanne-Dorigny, May 29-June 12, 1997, the American Physical Society 1995 Irving Langmuir Prize in Chemical Physics, Science Pour l'Art Award, Louis Vuitton Co., LVMH Moet Hennessy (1995), Visiting Professor of Medicine, Harvard University (July 1, 1993 - June 30, 1994), National Eye Institute MERIT Award for Cataract Research Studies (June 1990), Guest Professor at the Institute for Polymers, E.T.H. Zurich, Switzerland (June - July 1990), Fellow of the American Association for the Advancement of Science (February 1988), Alcon Research Institute Recognition Award "For Outstanding Contributions to the Field of Vision Research" (March 1987), Walker-Ames Professor, University of Washington, Seattle (October 4-13, 1984), Fellow of the American Academy of Arts and Sciences (May 1984), Member of the Institute of Medicine of the National Academy of Sciences (August 1983), Member of the National Academy of Sciences (May 1981), Guest Professor of Physics, E.T.H. Zurich, Switzerland (June 1980), Guest Professor of Physics, E.T.H. Zurich, Switzerland (January - July 1978), Visiting Professor of Physics, University of California at Santa Barbara (January - June 1977), Debye Lecturer in Chemistry, Cornell University (1972), Professorial Fellow in Theoretical Physics, Atomic Energy Research Establishment, Harwell, England (1967), Visiting Guest Lecturer at Ecole Normale Superieure, Paris (April 1967), Fellow of American Physical Society (1962) and John S. Guggenheim Fellow at Stanford University, Stanford, CA (1960). (Massachusetts Institute of Technology, 77 Massachusetts Ave, Cambridge MA 02139, U.S.A., Phone: +1-617-253-4828; Fax: +1-617-225-2585;
e-mail : benedek@mit.edu)

Benedict, Traugott Wilhelm Gustav (?-1862) German.Studied medicine at Leipzig. Appointed professor of surgery and ophthalmology in 1812, a position he held for nearly 50 years until his death 1862. Benedict was the first to declare the etiologic relationship between cataract and diabetes.Ophthalmic writings:"*Dissertatio de Morbis Humoris*

Conformatione Libellus(Leipzig 1809); *De Pupillae Artificialis Conformatione Libellus* (Leipzig 1810); *De Morbis Oculi Inflammatoriis Libri XXIII* (Leipzig 1811); *Handbuch über die Erkenntniss und Heilung der Augen-Entzündungen* (Leipzig 1814); *Beiträge für Praktische Heilkunde und Ophthalmiatrik* (Leipzig 1812); *Monographie des Grauen Stares* (Breslau 1814); *Handbuch der Praktischen Augenheilkunde*, 5 volumes(Leipzig 1822-25); *Klinische Beiträge aus d. Gebiet der Wundarzneikunde u.Augenheilkunde* (Breslau 1837); *Abhandlung aus d. Gebiet der Augenheilkunde* (2 volumes) (Breslau 1842-1845). American Encyclopedia of Ophthalmology,pp.930. Albert

Benedict, William Lemuel (1885-1969) American ophthalmologist, president of the Ophthalmic Publishing Company and a member of the editorial board of the American Journal of Ophthalmology. Benedict was born in Springport, Indiana. He was named a director of the Ophthalmic Publishing Company in 1929. He was named vice president of the Ophthalmic Publishing Company in 1939 and president in 1951. He became a member of the editorial board in 1937. He served on the editorial board of the *Archives of Ophthalmology* from 1939 to 1960 and was editor-in-chief of the *Transactions of the American Academy of Ophthalmology and Otolaryngology* from 1940 to 1968. Benedict was the head of the Section of Ophthalmology of the Mayo Clinic from 1917 to 1949 and was president of the staff of the Mayo Clinic from 1932 to 1935. He became a senior consultant in 1949, and retired from the Mayo Clinic 1950. He served as assistant professor of ophthalmology in the Mayo Graduate School of Medicine of the University of Minnesota at Rochester in 1917, was advanced to associate professor in 1918 and to professor in 1921. He retired from the University of Minnesota in 1951 and received a Certificate of Merit in 1952. Benedict attended the Spiceland Academy in Spiceland, Indiana, in 1904 and entered the University of Michigan in 1906, and graduated from the Department of Medicine and Surgery, now the University of Michigan Medical School, in 1912. He served the next two years as an assistant in the Department of Ophthalmology at the University Hospital in Ann Arbor and in the private office of Prof. Walter R. Parker in Detroit. In 1942 he became executive secretary treasurer of the American Academy of Ophthalmology and Otolaryngology, a position he held until 1968. He was a member of the Board of Directors of the National Society for the Prevention of Blindness since 1940, served as chairman of its Research Committee and was vice president from 1950 to 1953. He was president of the American Ophthalmological Society in 1954 and received the Howe Medal of the Society in 1964. He was chairman of the Section of Ophthalmology of the American Medical Association 1936-1937 and delegate from the section to the House of Delegates of the American Medical Association from 1949 to 1957. He was a member of the American Board of Ophthalmology from 1936 to 1944 and was a consultant from 1947 to 1959 when he was elected emeritus member of the Board. AJO 1969,67:602-603; BJO 1969,53:719

Benedictus, Alexander *see* **Benedetti**.

Beneventus *see* **Grapheus**

Benevoli, Antonio (1685-1756) Italian surgeon and professor of surgery at Florence, practicing at Santa Maria Nuova Hospital. He acquired a great reputation in both ophthalmologic and urologic surgery. He was the author of:"*Lettera d'Antonio Benevoli cerusico e maestro nel linomatissimo spedale di S. Maria Nuova - della città di Firenze sopra due osservazioni fatte intorno alla cateratta*" Firenze 1722; "*Nuova proposizione intorno alla caruncola dell'uretra detta carnositA ... sopra la cateratta glaucomatosa*." Firenze 1724 and "*Dissertationi.* I. *Sovra l'origine dell'ernia intestinale finora non stata avvertita.* II. *Intorno all più frequente cagione dell'iscuria* III. *Sopra il leucoma, detto volgarmenta maglia dell'occhio* Firenze1747. Albert

Bennett, Hugh Percy (1863-1952) British ophthalmologist, born in 1863 at Redcar. Bennett graduated M.B., C.M. from the University of Edinburgh in 1893, and having completed his house appointments in Edinburgh, became a clinical assistant at Moorfields. He then practised ear, nose, and throat surgery, as well as ophthalmology, at South Shields, and later moved to Newcastle where he devoted himself exclusively to eye work, having become a colleague of A. S. Percival on the honorary staff of the Northumberland, Durham, and Newcastle Eye Infirmary. Here he later held the post of senior ophthalmic surgeon until his retirement in 1934. Bennett performed valuable work as an ophthalmic

referee under the Workmen's Compensation Act, belonged to the North of England Ophthalmological Society and the Ophthalmological Society of the United Kingdom, and was elected vice-president of the ophthalmological section at the annual meeting of the British Medical Association held in 1921 at Newcastle upon Tyne. His eponymous epilation forceps are still in use to-day. BJO 1952,36:655-656

Bennett, Jack Winn (1932-2000) American optometrist of Bloomington. Bennett was born and raised in Bloomington, Indiana. He graduated from Bloomington High School. He attended Indiana University for two years prior to going into the U.S. Army for 3 years during the Korean War where he served as an optical technician. He then returned to Indiana University receiving his Bachelor of Science degree in Optometry in 1958 and Master of Optometry degree in 1959. Bennett practiced optometry in Bloomington from 1959 until 1970 when he became an Associate Professor of Optometry and Director of Patient Care at the Indiana University School of Optometry. He was on the Indiana University faculty until he became the founding dean of the College of Optometry at Ferris State University in Michigan. He developed the optometry program in Michigan and was the dean there until 1988. In addition to being the dean of the optometry program he also served at different times as the Executive Assistant to the President and Vice President for Administrative Affairs at Ferris State University. In 1988 Dean Bennett returned to Indiana University as Dean of the School of Optometry, where he served until he retired from the position in 1998 when he became Dean Emeritus. Following his retirement from the dean's position at Indiana University, he was recruited to take the position of Dean of the School of Optometry at the University of Missouri, St. Louis. He held this position from January 1999 until April 2000. Dean Bennett was very active in professional organizations serving on many state and national committees. He served as president of the Indiana Optometric Association from 1968 to 1970 and a member of the Board of Trustees of the American Optometric Association from 1974 until 1979. He was president of the Michigan Association of Professionals. He also served as president of the Association of Schools and Colleges of Optometry and on various boards of directors including the Indiana Society for the Prevention of Blindness; the International Library, Archives and Museum of Optometry; Indiana Chapter of the American Academy of Optometry; and the American Optometric Foundation. He was a Distinguished Practitioner of the National Academies of Practice and a Fellow of the American Academy of Optometry. He received many awards including Distinguished Service to Optometry, Meritorious Service, and the Lifetime Achievement Awards from the Indiana Optometric Association; Indiana Optometrist of the Year; Professional Man of the Year from the Michigan Association of the Professions; and named a Sagamore of the Wabash by Indiana Governor Frank O'Bannon. JPW

Benoit, Francois (1865-1929) Belgian ophthalmologist. Benoit was resident in Utrecht with Snellen before working in Liège under Nuel on the circulation of the intraocular fluids (published in 1899). He wrote also, among many other papers, on the *role of the aqueous humour in endogenous iritis* (1897), and, with Brachet on *regeneration of the lens in urodele amphibians* (1899). (Verriest)

Benson, Arthur H. (1852-1912) Irish ophthalmologist. Educated at Trinity College in Dublin, where he graduate as bachelor of medicine in1872. He studied for a few years under prominent ophthalmologists on the continent of Europe, became 1881 the Fellow of the Royal College of Surgeons in Ireland and was appointed ophthalmic surgeon to the Royal City of Dublin Hospital. For many years he was examiner in ophthalmic medicine and surgery at the University of Dublin. He served as vice-president of the Ophthalmological Society of the United Kingdom from 1901-1903 and was president of the Pathological Section of the Royal Academy of Medicine in Ireland from 1909-1911. The Ophthalmoscope, 1912,p.740-741.

Benvengut *see* **Grapheus**

Berar, Ladislav (1919-1980) Israeli ophthalmologist, born in Romania. Berar began his studies in France in 1937. He was deported to the concentration camp of Auschwitz and freed by the American army in April 1945. Berar returned to Romania to finish his studies and, in 1948 moved to Israel. Berar was a collector of postage stamps related to vision. He wrote a book about it, that appeared, 7 years after his death, edited by Rudolf Zewell: *Das Auge als Motiv* Frankfurt 1987. JPW

Bérard, Auguste, Junior (1802-1846) French surgeon. Brother of Fréderic-Joseph Bérard. Under the supervision of his brother, was educated at Angiers. In Paris he became intern, assistant in anatomy and prosector of the Faculty. He received his MD in 1829. Bérard became a famous surgeon and wrote numerous articles mostly in *Annales d'Oculistique* between 1841 and 1846. American Encyclopedia of Ophthalmology,pp.93

Béraud, Bruno Jacques (1825-1865) French physician. He authored : "*Recherches sur la tumeur lacrymale*." Paris 1855.

Berens, Conrad (1889-1963) American ophthalmologist. Conrad Berens, the son of an ophthalmologist, was born in Philadelphia, Pennsylvania, attended the Protestant Episcopal Academy in Philadelphia and was graduated in medicine from the University of Pennsylvania in 1911. He served as an interne in medicine and surgery in the Pennsylvania Hospital, Philadelphia, 1911-1913 and as a house surgeon in ophthalmology at the New York Eye and Ear Infirmary , 1913-1915. Berens was executive director of the Eye Department of the New York Eye and Ear Infirmary for many years and established the Research Division and Orthoptic Clinic at the Infirmary with the aid of the Ophthalmological Foundation, Inc. He was one of the founders of the graduate course in ophthalmology at the New York University Post Graduate Medical School and served as professor of clinical ophthalmology, Columbia University, from 1943 to 1946. At the time of his death, he was consultant in ophthalmology to the Glen Cove Community Hospital and the Nassau Hospital on Long Island; the New York Eye and Ear Infirmary, St. Clare's, French, Midtown and Lenox Hill hospitals and a member of the Medical Board of Doctors Hospital in New York City. As a clinician and surgeon, Dr. Berens was one of the leaders in this country and at the height of his career he maintained a large office with five ophthalmic associates and nine ancillary aids. The Berens Clinic at the New York Eye and Ear Infirmary was for many years one of the most outstanding and progressive in the country. For the first time in New York, he developed a systematic survey of the patient before treatment or surgery of the eye was considered. He emphasized bacteriologic studies and other routine tests to associate the eye complaint with the body as a whole. His interest in asthenopia and muscle anomalies led to the introduction of prisms in the clinic and the eventual founding of the Orthoptic Department and School at the Infirmary. Due to his experience as one of the founders of the original School of Aviation Medicine of the U.S. Army Signal Corps during World War I, Berens developed a keen appreciation of functional testing of the eyes and devised numerous instruments for the evaluation of visual function. Among his contributions were: accommodation devices, the American Board of Ophthalmology prism bars, tangent screens, vision charts and numerous other aids. In order to test these devices, a research department was necessary and was established at the hospital under his supervision. Various new surgical instruments, such as keratomes, scissors, retractors, needle holders and forceps were introduced in the operating room. The introduction of sterile rubber gloves in the operating room of the Infirmary and the use of corneoscleral sutures after cataract extraction were first required on the Berens service. He devised several modifications of operations, such as the retroplacement operation for strabismus, intrascleral implant after evisceration and others described in papers or textbooks. An iridocorneosclerectomy operation with the aid of the Berens punch, a technique of cataract extraction with a special suture and the use of cycloelectrolysis for glaucoma were described in the textbook on surgery by Berens and King. Berens was a prolific writer and contributed valuable material to ophthalmic literature. He was the editor in ophthalmology for several medical journals. His greatest contribution was a textbook, *The Eye and Its Diseases,*(1936), which was used almost universally by the Armed Forces during World War II and has since been revised and reprinted (Second edition was 1949). He also wrote *Diagnostic Examination of the Eye* (1946) He collaborated with other authors in the presentation of textbooks on external eye diseases and surgery (with John Harry King, Jr.: *An Atlas of Ophthalmic Surgery*, Philadelphia 1961; with Michel Loutfallah *Ocular Surgery*, 1950; with Benjamin J.

Sheppard *Abstracts on Military and Aviation Ophthalmology and Visual Sciences*, Washington 1953; with Ed Siegel *Encyclopedia of the Eye Diagnosis and Treatment* 1950). Although an outstanding teacher, Berens introduced many aids to emphasize his lectures such as the use of colored slides and "movies" before they were in general use. It was only natural that he would be asked to organize one of the best graduate courses in ophthalmology in the United States, namely, the course at New York University Post-Graduate Medical School. His long service as a member and president of American Board of Ophthalmology showed him the deficiencies of many of the courses and he was able to avert them at New York University. At least two great organizations, the Association for Research in 0phthalmology and the Pan-American Association of Ophthalmology, owe, in a great part, their success to the efforts of Conrad Berens and his friends. He served as president of the American Ophthalmological Society, the New York Ophthalmological Society, the American Academy of Ophthalmology and Otolaryngology, the American Board of Ophthalmology, the New York County Medical Society and was chairman of the Section of Ophthalmology of the New York State Medical Society, the New York Academy of Medicine and the American Medical Association. He was vice president of the International Council of Ophthalmology, the International Society for the Prevention of Blindness and representative of the United States to the French Ophthalmological Society. He was president of the Section of Ophthalmology of the Pan-American Medical Association and honorary member of the Ophthalmological Societies of Mexico, Peru, Chile, Brazil, Cuba and Uruguay. He also served as director of the New York Association for the Blind, and on the board of directors of the National Society for Prevention of Blindness and the Seeing Eye. He was also a member of the American College of Surgeons and the Illuminating Engineering Society of America. Berens served as a first lieutenant in the Medical Corps in France in World War I and was retired as a lieutenant colonel in the reserve in 1924. He became National Civilian Consultant to the Air Surgeon of the U.S. Army during World War II and visited many installations including the School of Aviation Medicine. After the war, he served as consultant to the Surgeon General of the Air Force for the conventional two terms prescribed by the consultants.AJO 1963,55:1081;1086-1089. AJO 1963, 55:1081-1089

Berenstein (1865-1901) Russian. Received his degree at Dorpat.He studied ophthalmology with Julius→Hirschberg and H.→Leber in Heidelberg. American Encyclopedia of Ophthalmology,Vol.2,p.935.

Berger, Emil (1855-1926) Austrian ophthalmologist, born in Vienna, who studied ophthalmology under Jaeger, in Halle under Alfred→Graefe, and in Berlin under Julius→Hirschberg, before settling in Paris in 1887. Here he opened an eye clinic, where he investigated and lectured on diseases of the eye, being particularly interested in the relationships between these diseases and general pathology. He also invented a corneal loupe and wrote: *Beiträge zur Anatomie des Auges in normalen und pathologischem Zustande* Wiesbaden 1887 and *Les maladies des yeux* Paris: G. Masson, 1892. Albert

Berggren, Lennart (1927-) Swedish Ophthalmologist. Born in Stockholm where he qualified in medicine at the Karolinska Institute. Moved in 1954 to Uppsala and professor Bárány's Department of Pharmacology. He was awarded the Doctorate of Science in 1960 with a thesis on aqueous humor formation and outflow and was an Assistant Professor of Pharmacology the following six years. His clinical ophthalmological education took place in Stockholm, Umeå and Uppsala where he was Professor of ophthalmology 1974-1991. The scientific contributions deal mainly with experimental and clinical glaucoma and ocular pharmacology. His studies (together with O. Hansson) on the adverse ocular effects of hydroxy-quinoline antiseptics were of crucial importance in establishing their causal connection with the Japanese epidemic of subacute myelo-optic Neuropathy (SMON).

Berkeley, George, Bishop of Cloyne (1685-1753) Irish .He entered the Trinity College in Dublin at the age of fifteen and was elected a fellow there in 1707.His college was at that time feeling the influence of Isaac→Newton and Robert→Boyle. He founded 1705 a society for the discussion of the New Philosophy. He wrote two small treatises on mathematics before his important work"*An Essay towards a New Theory of Vision*" which was published in 1709. American Encyclopedia of Ophthalmology,pp.936-939; Concise Dictionary of National Biography, Oxford 1921,p.94; Albert

Berkowitz, Bruce A. (?) American scientist. B.A., Chemistry, University of Rochester, Rochester, NY, 1978-1982. B.A., Philosophy, University of Rochester, Rochester, NY, 1978-1982. M.A., Chemistry, Washington University, St. Louis, MO, 1982-1984. Ph.D., Physical Chemistry, Advisor: Joseph J.H. Ackerman, Washington University, St. Louis, MO, 1984-1987. Berkowitz had the following appointments: Staff Fellow, Lab Director: Robert Balaban, National Institutes of Health, National Heart, Lung, and Blood Institute, Bethesda, MD, 1987-1989; Staff Fellow, Lab Director: Robert London, National Institutes of Health, National Institute of Environmental Health Science, Research Triangle Park, NC, 1989-1990; Senior Staff Fellow, Lab Director: Robert London, National Institutes of Health, National Institute of Environmental Health Science, Research Triangle Park, NC, 1990-1992; Research Assistant Professor, Ophthalmology/Radiology/Biomedical Engineering, University of Texas Southwestern Medical Center, Dallas, TX, 1992-1996; Associate Professor, Anatomy/Cell Biology and Kresge Eye Institute, Wayne State University School of Medicine, Detroit, MI, 1996-present. He published following book chapters: B.A. Berkowitz and R.S. Balaban: *Two dimensional nuclear magnetic resonance studies of enzyme kinetics and in vivo metabolites*, in *Methods in Enzymology*, Academic Press, (eds. N.J. Oppenheimer and T.L. James), 176, 330-494 (1989). B.A. Berkowitz: *Two-dimensional correlated spectroscopy in-vivo*, in *NMR - Basic Principles and Progress*, Springer press, (eds. P. Diehl, E. Fluck, H. Gunther, R. Kosfeld, and J. Seelig), 27-223-236 (1992) and numerous papers. Address: Department Anatomy/Cell Biology , Wayne State University, School of Medicine , Detroit, MI 48201(USA)
Email: baberko@med.wayne.edu (JPW)

Berlin, Rudolf (1833-1897) German neurologist. He studied in Göttingen, Würzburg, Berlin and Erlangen where he received his medical degree. He was for a certain time assistant at → Pagenstecher´s private clinic in Wiesbaden, later of Bruns at the Surgical Clinic at Tübingen.He wrote several ophthalmic articles in *A.v.Graefe´s Archiv für Ophthalmologie*,in *Klin.Monatsblätter für Augenheilkunde* and in Graefe-Saemisch´s Handbuch der Augenheilkunde. He wrote with S. Rembold: ″*Untersuchungen über den Einfluss des Schreibens auf Auge und Körperhaltung des Schulkindes*″ Stuttgart 1883. American Encyclopedia of Ophthalmology,pp.939-40. Daniel M.Albert, [GM 5907].

Bernard le Provencal (12th century) A French wandering oculist probably born at Arles who studied at Montpellier. He was a pupil of the famous Salernus. He wrote a ″Commentary″ on his teacher´s ″Tabulae″. Bernard´s ″comments″ are extremely interesting. The oculistic part of it is rather scanty. American Encyclopedia of Ophthalmology,vol.2,p.941.

Bernard, P.(?-?) French. Parisian oculist who flourished about the middle of the 19th century. He wrote 4 papers in the *Annales d´Oculistique*, vol.7-9 & 14. American Encyclopedia of Ophthalmology,p.941.

Bernheimer, Stefan 1861-1918) born in Trieste, studied ophthalmology in Vienna (M.D., 1892) and in Heidelberg under Otto Becker. He was professor of ophthalmology at the University of Innsbruck from 1900 to 1915, and afterward director of the eye clinic at the University of Vienna. Bernheimer's experimental studies concerned the pathways of the optic nerves and of the motor innervation of the eyes; his clinical contributions were in the treatment of tubercular and gonorrheal conjunctivitis.″*Über die Sehnerven-Wurzeln des Menschen*″ Wiesbaden 1891. Albert.

Bernstein, Johann Gottlob (1747-1835) German surgeon who paid considerable attention to ophthalmology. For a certain time he wandered as a barber´s assistant through Austria and Germany. Later he sailed as a ship-surgeon on a 4 ? months cruise to Greenland. Returning to Germany he practised for many years in Ilmenau. In 1806 he moved to Jena and 1810 to Berlin where he taught and practised surgery for many years. Bernstein published 1793 his *"Chirurgisches Lexicon"* in which nearly ninety articles on ophthalmology can be found. Many editions followed. It should be noted that the ophthalmological part in the fifth edition was written by Chr.Fr.Heinrich Busse from Berlin in 1818. Bernstein published 1822 a ″*History of Surgery"* which contained an appropriate share on ophthalmology. American Encyclopedia of Ophthalmology,vol.2,p. 941-942.

Berry, George (Sir George) Andreas (1853-1940) Scottish ophthalmologist. George Berry was the eldest son of Walter Berry of Glenstriven, Argyllshire. He was educated at Marlborough and at Edinburgh. He studied mathematics under Professor Tait, and became one of the six members of Tait's Senior Class, where he developed his remarkable knowledge of this subject. He graduated M.B., C.M. at Edinburgh in 1876, and in 1881 became a Fellow of the Royal College of Surgeons of Edinburgh. Before beginning practice George Berry prosecuted his special studies in ophthalmology for some years in various Universities and Hospitals. In Copenhagen he worked with his distinguished uncle, Professor Hansen Grut, who later became Bowman Lecturer of the Ophthalmological Society of the United Kingdom in 1889, and for whom he retained throughout his life the greatest admiration and regard. He also studied in France, Austria, Germany and Holland at this period of his career. While he was House Surgeon at Moorfields Eye Hospital, London, in 1878 and 1879, Berry was one of the moving spirits in the formation of the Ophthalmological Society of the United Kingdom, which was founded in 1880. Throughout his lifetime he took the greatest interest in this Society, of which he was an Original Member. While still a comparatively young man he was recognized as an authority in ophthalmology, and enjoyed a high reputation on the Continent and in America, as well as at home. He was the author of a textbook entitled: *"Diseases of the Eye-A Practical Treatise for Students of Ophthalmology."*Edinburgh 1889. This textbook was referred to by many of the leading continental Professors of Ophthalmology as being not only an exhaustive treatise, but also distinguished by many original observations and ideas. It was widely used as a standard work for many years after its publication. The second edition appeared in 1893. The terms of the dedication of this book, to Edmund Hansen Grut, M.D., show the keen appreciation, the enthusiasm and the loyalty which were essentially characteristic of Berry. Two monographs from his pen were also much appreciated and widely used: *"Subjective Symptoms in Eye Disease"*1886 and *"Ophthalmoscopic Diagnosis."* That on subjective symptoms, published in 1886 was especially, interesting and characteristic. He was a well known figure at the meetings of the Ophthalmological Society of the United Kingdom, and was Member of Council from 1889 to 1892; Vice-President from 1895 to 1898 ; and President from 1909 to 1911. In 1917 the Society, paid him the highest honour by electing him to be Bowman Lecturer. He was a member of the British Medical Association for many years. He was awarded the Middlemore Prize in 1886, and was Vice-President of the Section of Ophthalmology in 1889 and 1898, and President in 1905. Berry served on the Staff of the Eye Department of the Royal Infirmary, Edinburgh, for 23 years, and retired from the position of Senior Surgeon of the Department in 1905. He was a Fellow of the Royal Society of Edinburgh; Honorary Fellow of the Royal Academy of Medicine of Ireland; President of the Royal College of Surgeons of Edinburgh from 1910 to 1912; a member of Edinburgh University Court; and a Manager of the Royal Infirmary. During the first War he established and conducted the Ophthalmic Department of the Second Scottish General Hospital, Edinburgh. He was appointed Honorary Surgeon Oculist in Scotland to H.M. King Edward VII, and to H.M. King George V, and in 1916 the honour of Knighthood was conferred upon him. From 1922 to 1931 he was Member of Parliament (Conservative) for the Scottish Universities; at the end of which period he received the Honorary LL.D. of Edinburgh University. His great interest in mathematics was abundantly shown in his textbook and in his contributions to this subject. He possessed a remarkable acquaintance with modern languages and especially with the less generally known Norse tongues, with which he had become familiar in early life. BJO 24,416-418, 1940. Albert. AJO 1940,23:1061-1062

Bersanus, Sebastiano.Italian of the 16th century, author of a book titled *"De Morbo Oculorum"* of little historical value. American Encyclopedia of Ophthalmology, vol.2, p.942.

Berson, Eliot Lawrence (1937) American ophthalmologist, Professor of Ophthalmology, Harvard Medical School and Director of Berman–Gund Laboratory for the Study of Retinal Degenerations. He was born in Boston, Massachusetts and is a graduate of Yale College (B.S., 1958) and Harvard Medical School (M.D., 1962). He did his residency training in ophthalmology from 1963 to 1966 at Washington University School of Medicine under Dr. Bernard→Becker and his postdoctoral fellowship training in retinal

degenerations and electrophysiology from 1966 to 1968 at the National Institute of Neurological Diseases and Blindness, Ophthalmology Branch, under Dr. Ludwig von Sallmann. He joined the Harvard Department of Ophthalmology in 1968 and has served as Instructor (1968–1970), Assistant Professor (1971–1976), and Associate Professor (1976–1982). In 1982 he was appointed the William F. Chatlos Professor of Ophthalmology of Harvard Medical School. He established the Electroretinography Service of the Massachusetts Eye and Ear Infirmary in 1970. In 1974 he founded the Berman–Gund Laboratory for the Study of Retinal Degenerations of Harvard Medical School at the Massachusetts Eye and Ear Infirmary and has served as its Director since that time. The Berman–Gund Laboratory was the *first* multidisciplinary laboratory in the world dedicated to the study of retinitis pigmentosa and allied retinal diseases. Major accomplishments include: discovery of the first treatment for the common forms of retinitis pigmentosa, namely 15,000 IU of vitamin A palmitate daily; discovery that delays in the electroretinogram, or ERG, can be used to predict inevitable blindness in patients with retinitis pigmentosa, in some cases more than 50 years in advance; and development of a computerized ERG system that increased the sensitivity of recording by 1,000-fold, thereby allowing retinitis pigmentosa to be followed objectively throughout almost its entire course. In collaboration with his colleague Dr. Thaddeus Dryja, he identified the first gene abnormality responsible for retinitis pigmentosa, rhodopsin, Proline-23-Histidine. As of 1999, 18 genes causing retinitis pigmentosa have been identified around the world; of these, 9 have been detected as a result of this collaboration. He participated in the creation of the first mouse model of human retinitis pigmentosa containing a human mutant gene. This mouse was a model for dominantly inherited retinitis pigmentosa. He also participated in the creation of the first mouse model of human X-linked retinitis pigmentosa. His bibliography lists some 200 publications: some examples are ″Dryja, T.P., McGee, T.L., Reichel, E., Hahn, L.B., Cowley, G.S., Yandell, D.W., Sandberg, M.A., and Berson, EL.: *A point mutation of the rhodopsin gene in one form of retinitis pigmentosa*. Nature 343: 364-366, 1990″, ″Berson, E.L., Rosner, B., Sandberg, M.A., Hayes, K.C., Nicholson, B.W., Weigel-DiFranco, C., and Willett, W.: *A randomized trial of vitamin A and vitamin E supplementation for retinitis pigmentosa*. Arch. Ophthalmol. 111: 761-772, 1993″ and ″Sibulesky, L., Hayes, K.C., Pronczuk, A., Weigel-DiFranco, C., Rosner, B., and Berson, E.L.: *Safety of less than 7,500 RE/day (25,000 IU/day) of vitamin A in adults with retinitis pigmentosa*. Am. J. Clin. Nutr. 69: 656-663, 1999″. Awards include: the Franceschetti Medal of the International Society of Genetic Eye Diseases (1990); the Friedenwald Award of the Association for Research in Vision and Ophthalmology (1992) (Berson, E.L.: *Retinitis pigmentosa: The Friedenwald lecture*. Invest. Ophthalmol. Vis. Sci. 34: 1659-1676, 1993); the Pisart Award of the New York Lighthouse (1993); the Alcon Research Institute Award (1988 and 1997); and the Llura Liggett Gund Award of the Foundation Fighting Blindness (1999). He is a MERIT Awardee of the National Eye Institute and currently serves as the Chairman of the National Eye Institute Board of Scientific Counselors. He has provided training for 25 postdoctoral fellows and over 200 residents. Three of the fellows have become full professors and direct other research centers focused on retinal degenerations. As the Director of the Electroretinography Service of the Massachusetts Eye and Ear Infirmary, Dr. Berson continues to evaluate patients with hereditary retinal degenerations. He continues his research on retinitis pigmentosa and allied diseases on a full-time basis through Harvard Medical School as the William F. Chatlos Professor of Ophthalmology and Director of the Berman–Gund Laboratory for the Study of Retinal Degenerations. (Eliot L. Berson, M.D., Berman-Gund Laboratory, Harvard Medical School, Massachusetts Eye and Ear Infirmary, 243 Charles Street Boston, Massachusetts 02114, USA)(JPW)

Bertherand, Alphonse François (1815-1887) French physician who wrote ″*Des plaies d'armes à feu de l'orbite*.″ Paris 1851.

Berthold, Arnold Adolf (1803- 1861) German physiologist. Received his medical degree in Göttingen 1823. Studied in Berlin and in Paris, became lecturer and practising physician at Göttingen. He published at Göttingen 1829 a ″*Textbook of Human and comparative Physiology*″ which had a number of later editions. He became ordinary professor at Göttingen University. He was also very active in the field of ophthalmology and wrote: ″*Das Aufrechterscheinen der Gesichts Objecte trotz des umgekehrtstehenden*

Bildes derselben auf der Netzhaut des Auges" Göttingen 1830."(*The Upright Appearance of the Visual Object in spite of the Inverted Image thereof on the Retina of the Eye.*) This work had a second edition 1834. In 1839 there appeared a work from him causing a great stir in the ophthalmological world:"*The Myopodiorthoticon, or the Apparatus for Healing Short-Sightedness"*. The "apparatus" consisted of a frame which prevented the person using it from reading at a less than given distance from his page, and was reajusted from time to time to increase the distance of reading. By this process, Berthold believed he could cure shortsightedness entirely. The system had for a certain time a great vogue and than disappeared. American Encyclopedia of Ophthalmology,vol.2,p.943, Albert

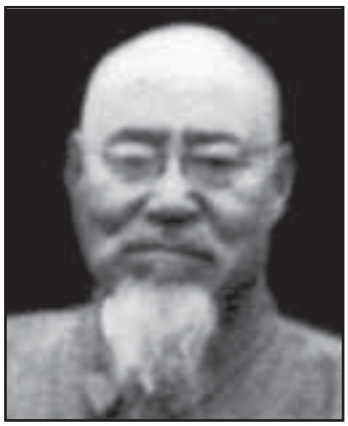
Bertrandi, Giovanni Ambrogio (1723-1765) Italian anatomist, surgeon & ophthalmologist. Born in Turin, general and medical education in his hometown. Thesis : "*Ophthalmographia*", republished later in 1748. Bertrandi received his degree Master of Surgery in 1747. He wrote: "*Traité des opérations de chirurgie*" Paris 1784. After his death, a monumental work was published by his former pupils under the title *Anatomiche e Cerusiche di Ambrogio Bertrandi* (14 volumes!) in which 2 for that time excellent treatises on the diseases of the eyes. American Encyclopedia of Ophthalmology,vol.2, p.944-45.

Bettman, Boerne (1856-1906) American Ophthalmologist from Chicago. Bettman was renowned as an operator. After three years of study under the preceptorship of his father in the Miami Medical College, he received his medical degree in 1877, was for a short time assistant of Elkanah Williams (the first professor for ophthalmology in the United States). For one and a half years he was assistant to Dr. Herman →Knapp and for three years studied in Europe under →Arlt, →Stellwag von Carion, →Jaeger, →Mauthner, →Fuchs, Gruber and Storch in Vienna and then second assistant under Otto →Becker in Heidelberg. Later on he was made *first* assistant to Becker. In 1880 he returned to America and settled in Chicago. He became the first lecturer in ophthalmology and otology in the College of Physicians and Surgeons of Chicago and assisted in the organization of the Chicago Medico-Legal Society. He then was made Professor of Ophthalmology and Otology at the Chicago College of Physicians and Surgeons until near his death. He wrote "*Ocular Troubles of Nasal Origin*" (J.A.M.A., Jan.17/1887); "*Traumatic Iridodialyses*" (North American Practitioner, Dec.1890) & "*Dislocation of the Lens into Anterior Chamber*" (Chicago Medical Recorder). At the begin of the 20th century there was an operative technique for pterygium called after him , as well as a method of artificial ripening of immature cataract. American Encyclopedia of Ophthalmology,vol.2,p.946-947.

Beuningen, Ernst van (1915-?) German ophthalmologist. University lecturer Tübingen. Director of the Institute for Physiology of the Senses at the Military Academy in Berlin 1942-45, teaching position 1946. Director of the eye department of the Maria Trost hospital 1951-53; lecturer at the University of Tübingen 1954 and from 58 until 1961 at the Frankfurt/Main University. He is the author of : *Atlas der Spaltlampengonioskopie*, 1955 which was rapidly out of print. He wrote articles about physiology of the senses between 1940-49 in *Graefe´s Archiv f.Ophthalmologie*, in *Fortschritte auf d. Geb. der Röntgenstrahlen, Zeitschrift für Sinnesphysiologie* and in *Handbuch der med. Radiologie*. Further countless articles between 1949-60 in various German journals. Kürschners Gelehrten- Kalender 1966, p.164. JPW.

Bhargava, Kumar Satish (1939-1991) Indian ophthalmologist who was born in Lahore but moved to Delhi with his family in 1947 on Partition. He was one of the first intake of students at the All India Institute of Medical Sciences from which he qualified in 1962. After an internship there he came to England to take up a casualty officer post at Lister Hospital, Hitchin. He started training in ophthalmology at the West of England Eye Infirmary, Exeter in 1963, continued at the Glasgow Eye Infirmary 1965, and returned to Exeter as Registrar in 1968. He became senior registrar to the professorial unit at Manchester Royal Eye Hospital in 1971 where he became interested in retinal pathophysiology. On appointment to the consultant staff there in 1975

he developed an electrophysiological diagnostic service and a referral clinic for the management of inherited retinal disorders. Both on his own and in collaboration with the Department of Optometry and Vision Science at the University of Manchester Institute of Science and Technology he was responsible for a steady stream of publications in this field, as well as on colour vision and toxic amblyopia. He was chairman of the medical committee twice in 1981-1983 and 1987-89. He developed close relationship with the School of Orthoptics of which he was medical director from 1986-1989. He frequently examined for the Orthoptic Society as well for the Royal College of Surgeons of Edinburgh, the British Optical Association, and the Ophthalmic Nursing Board. BJO 1992, 254



Chua-de Bi

Bi, Hua-de (1891-1967) Chinese Ophthalmologist, Professor Emeritus of Beijing University Medical School. He graduated from Beijing Union Medical University in 1918, and studied Ophthalmology at the Department of Ophthalmology, University of Vienna during 1924-1925 and received D.med. On home coming he served as Associate Professor at the Department of Ophthalmology, the Union Hospital (1926-1945) and Professor and Chairman of the Department of Ophthalmology, Beijing University Medical School (1946-1966). In the professional societies, he held the following positions: Chairman, Beijing Ophthalmology Association (1932-1949). Chairman, Chinese Ophthalmology Association (1950-1966), Editor of Chinese Medical Journal (1930-1949) and Editor in Chief of Chinese Journal of Ophthalmology (1950-1966). He wrote many books and some examples are *Ophthalmology and Nursing*, *Textbook of Ophthalmology*, *Ophthalmology*, *Workbook of Ophthalmology*, *Dioptrics and System of Ophthalmology* Vol 1 (All published by People's Medical Publishing House).

Bicas, Harley E. A. (1937-) Brazilian ophthalmologist. Bicas was born in Ribeirão Preto, São Paulo, Brazil in 1937. He received his medical degree in 1962 at the Faculdade de Medicina de Ribeirão Preto – Universidade de São Paulo, where he commenced his ophthalmological specialization during the years of 1963-1964. In 1967, Bicas presented his doctoral thesis *"About a new principle of keratometry and its application"* and, in 1972, he presented his Ph.D thesis *"Electro-oculography on the study of ocular motility"*. He became Associate Professor of the Departamento de Oftalmologia da Faculdade de Medicina de Ribeirão Preto in 1977, and Full Professor in 1981. He was elected Head of Department during the years of 1980-1988, 1996-1998 and 2000-2002. He was an Attached Researcher at the Department of Neurophysiology – Institute of Ophthalmology – University of London (1969-1970) and a Visiting Scientist at the Smith-Kettlewell Institute of Visual Sciences – San Francisco, U.S.A. (1974-1975 and 1993-1994). His main teachers in Ophthalmology were Almiro Pinto de Azeredo (Ribeirão Preto), Geoffrey B. Arden (London) and Arthur Jampolsky (San Francisco). He is the author of the book *"Oftalmologia – Fundamentos"*, Ed. Contexto, São Paulo, 1991 and co-author of the *"Parálisis Oculomotoras. Diagnóstico y Tratamiento",* Tecnimedia Ed., Madrid, 1999. In 1967 and 1970 Bicas received the Adaga Award of the Brazilian Society of Ophthalmology for the best published Brazilian Ophthalmological paper of the year, and in 1977 and 1981 he received awards for the best Brazilian papers in Strabismus. In 1993, he was granted the William Kettlewell Endowed Chair in Visual Sciences (annual award of the S-K Eye Research Institute of San Francisco). In 1997, he received the Oftam/Brazilian Center of Strabismus Award for the best scientific paper in ocular motility. Bicas is a Member of the International Strabismological Association, American Association of Pediatric Ophthalmology and Strabismus, Latin-American Council of Strabismus (president 1974-1976, and General Secretary 1990-1996), Brazilian Center of Strabismus (president 1983-1985), Pan American Society for Research in Ophthalmology (president 1979-1981), Brazilian Academy of Ophthalmology (Vice-President), and the Academy of Sciences of Ribeirão Preto (President). He became the Associate Scientific Editor of the Arquivos Brasileiros de Oftalmologia, the official publication of the Brazilian Council of Ophthalmology (1990-1999) and the Editor-in-Chief since 1999. Since the beginning of his academic life, he has published more than 140 papers about strabismus, amblyopia and ocular motility, as well as more than 30 chapters in books. Address: Harley E. A. Bicas, Department de Ophthalmology, Faculty of Medicine, 14049-900 – Ribeirão Preto, Brazil. Phone: 55-16-6022523; Fax: 55-16-6022860; e-mail: heabicas@fmrp.usp.br (Antonio Jordao Jr)

Bickerton, John Myles (1894-1977) British ophthalmologist. John Myles Bickerton was born at Hoylake, Cheshire, the youngest son of Thomas Herbert Bickerton, and Mary Jessie, née Burton. He was educated at the Leas School, Hoylake, Leighton Park School, Reading, Pembroke College, Cambridge, and King's College Hospital Medical School where he was Burney Yeo Scholar. He held a number of appointments including senior ophthalmic surgeon, King's College Hospital; Dean of the Royal Eye Hospital and ophthalmic consultant to the London County Council. During the first world war he served in the RNVR as a surgeon probationer in HM Ships Lawford and Sybille, and in HMS Royal Oak 1918-1919 as Surgeon Lieutenant. He returned to King's College Hospital and in 1921 he joined Sir Robert Houston's yacht as surgical specialist for some months, again returning to his hospitals and private practice. Between the wars he became interested in flying, learned to fly and joined the RAFYR in 1937, becoming the first doctor to do so. He was made a Wing Commander. Flying became his chief recreation, with the result he had an aerodrome built at Denham. It was used a great deal during the second world war and is now very useful to the community at large. He came from a famous Liverpool medical family who all became ophthalmic surgeons. His grandfather Thomas was an FRCS Ed. His father Thomas Herbert was elected FRCS in 1926 and was the first person to draw attention to the problem of colour blindness in marine personnel. His uncle Col. R.E. Bickerton DSO was an eye specialist in London, Vienna and Zurich working for the Army in the first world war and afterwards for St Dunstan's. Bickerton´s many publications included *The inheritance of blindness*, *Eye diseases in general practice* and *The bespectacled pilot*. He always maintained that the surgeons who gave him the most help and encouragement were L.V. Cargill, Sir Robert Jones, W. Lyle, Sir Cecil Wakeley and Sir St Clair Thomson. Bickerton received following titles and degrees: MRCS 1919; FRCS 1923; BA Cambridge 1919; MA 1924; BCh 1919; LRCP 1919. JPW

Bidloo, Govard (1649-1713) Famous Dutch anatomist at the University of Leiden. He was the *first* to find that animals cannot send light from their eyes, and, in 1690, he was the first to replace a wounded eye with a glass one. Amongst many other writings, he authored: *"De oculis et visu variorum animalium observationes physico-anatomicae."* Lugduni Batavorum: Apud Samuelem Luchtmans, 1715 Albert

Bidwell, Shelford (1848-1909) British pioneer of telephotography who was born in Norfolk and educated at Cambridge. Bidwell devoted his life to scientific experimentation, making important discoveries in the fields of electricity, magnetism, and physiological optics. He invented an instrument for electrically transmitting photographic images. He wrote, based on a series of lectures: *"Curiosities of light and sight."* London 1899. Albert

Bielschowski, Alfred (1871-1940) German ophthalmologist. Training 1894 under →H.Sattler in Leipzig. University lecturer 1900 in Leipzig. Professor 1912 in Marburg, from 1923 in Breslau. Discriminated as a Jew, he left Germany 1934 and became director of the Dartmouth Eye Institute, Hanover, New Hampshire, USA. Bielschowski paid special attention to paralytic strabismus. As from 1910 he was considered as the expert for problems of motor anomalies of the eye. Main work: *"Die Mobilitätsstörungen des Auges"*. Hirschberg: *History of Ophthalmology*, Bonn 1994 , XI/3d, pp.68-69; BJO 24,420,1940.

Biervliet, Auguste-Louis van (1830-1869) *see* **Van Biervliet**

Bietti, G. B. (1907-1977) Italian ophthalmologist, professor of ophthalmology at the University of Rome since 1955. Throughout his life Professor Bietti displayed remarkable scientific activity. He participated in some 50 symposia and was an official reporter at many national and international congresses. More than 150 universities and ophthalmological societies in Italy and abroad invited him to give lectures on a wide variety of subjects. He was a member of numerous medical and ophthalmological societies and the editor-in -chief of the Bolletino d'Oculistica. Bietti published more than 1,200 papers in Italian and other journals, all of them highly praised. Among other books, he wrote *Trattato di Oftalmojatria* (3 volumes) Milano 1925. He gave his name to no fewer than 25 ophthalmic operations and eye diseases, among them the crystalline fundus dystrophy and certain particular forms of corneal degeneration. He was interested in all aspects of ophthalmology, experimental pathology and physiopathology, histology, microbiology, clinical pathology, and medical or surgical therapeutics. Precursor and pio-


Prof. Dott. AMILCARE BIETTI

TRATTATO

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G.B. Bietti

neer of cryotherapy, he wrote monographs and textbooks on vitamins, viruses, trachoma, corneal degenerations, and treatment of congenital glaucoma by goniotomy. Bietti was awarded the Gold Medal of Social Ophthalmology in 1964, that of the International Organization Against Trachoma in 1965, the Axenfeld Prize in 1969, and the Golden Ophthalmoscope of the Meridional Society of ophthalmology in 1972. Bietti was an Honorary member of some 15 ophthalmological and medical societies, including the American College of Surgeons. He was a member of six academies of medicine, and Doctor *honoris causa* of the universities of Thessaloniki, Münster, and Ghent. He was president of the International Organization Against Trachoma from 1954 and ex-officio member of the International Council of Ophthalmology, of which he became vice-president in 1974. AJO 1977,84:128-129

Biggam, James (1891-1960) Scottish ophthalmologist. Biggam was born in Wigtownshire and was one of four brothers who made the R.A.M.C. their careers. Graduating in Edinburgh in 1914, he went straight into the R.A.M.C. and served until the end of the Second World War. After the Great War in which he was awarded the Military Cross and Bar for conspicuous gallantry and devotion to duty and was twice mentioned in dispatches, he was seconded to the Egyptian Army. On his return to England he became lecturer in ophthalmology at the R.A.M.C. College at Millbank and won the Alexander Memorial Prize in 1930 and the Parkes Memorial Prize in 1937 for his investigation into the lighting of barracks and the designing of a spectacle frame for use with the service respirator. When the War Office decided to bring the Army medical equipment up to date, he advised on the equipment of an eye department. Thus he was responsible for the very fine set of surgical instruments which delighted the hearts of army ophthalmic surgeons during the Second World War. During the latter war he served in India, Persia, and Iraq (where he served as Ophthalmic Consultant to Pai Force). He then took command of the 23rd Scottish General Hospital in Palestine, brought the latter home, and then went with it to North-West Europe. In the course of his journeying round the world he was reputed to be accompanied by some seventy trunks, boxes, and suit cases, each numbered and each bearing on its lid a list of contents. As one would gather, he was a most methodical man, but he was not in the least pernickety. When his soldiering days were over, he settled in an hotel in Glasgow and decided, having slept in many an uncomfortable billet to have the most comfortable bed that money could buy. This was supplied by a Glasgow firm complete with a red, amber, and green light to indicate the temperature of his electric blanket. When he came to work at the Glasgow Eye Infirmary he was nearing the end of his professional life. He chose to work in the Out-Patient Department, but this was no hum-drum duty to be performed as quickly as possible; each patient to him was a human being with a problem and he made it his task to solve that problem to the best of his ability. His reports on patients were a joy to read and one could be certain that every aspect of the case had been carefully investigated and weighed up. He brought all his great store of experience and philosophy to bear on his judgment, for he was a great philosopher and a man with a well-balanced mind. He became a kind of -BigBrother- in the out-patient department and young ophthalmologists brought their problems to him, so that he gradually became recognized as the trainer of the young refractionist. He was also a great authority on ophthalmic instruments, and his examination cubicle was stocked with all manner of appliances for the better investigation of his patients. BJO 1960,44:448

Bill, Anders (1931-) Swedish physiologist, born in Uppsala, Sweden. Bill started his career as part-time lecturer in Anatomy (1951 to 1955) and Physiology (1955-62), and became Senior Research Associate at the Institute of pharmacology from 1962 to 1964. Later, from 1964 to 1973, he was named Investigator of the Swedish Medical Research Council. In 1973 Anders Bill became Professor and Head of the Department of Physiology and Medical Biophysics. He received his medical education in Uppsala and earned his MD in 1958. He studied ophthalmology under Gunnar→von Bahr. Bill published countless papers in national and international journals. This is a selection: Bill, A.: *The aqueous*

humour drainage mechanism in the cynomolgus monkey (Macaca irus) with evidence for unconventional routes. Invest. Ophthal., 4:911-919, 1965; Bill, A.: *Scanning electron microscopic studies of the canal of Schlemm*. Exp. Eye Res., 10:214-218, 1970; Bill, A.: *Blood circulation and fluid dynamics in the eye*. Physiol. Rev., 55:411, 1975; Bill, A.; *Some aspects of the ocular circulation. Friedenwald lecture*, Invest. Ophthalmol. and Vis. Sci., 26:410-424, 1985; Bill, A.: *Effects of some neuropeptides on the uvea*. *The 1990 Endre Balazs Lecture*. Exp. Eye Res.,53:3-11, 1991. Anders Bill is a member of the ARVO, of the ISER, and the Nordic Society for Physiology. He is since 1995 Professor Emeritus from the Uppsala University. Phone: ++46 18 309880 Fax: 46 18 4714938, Email: anders.bill@fysiologi.uu.se (JPW)

Billard, Charles Michel (1800-1832) French physician, born at Pelouaille, near Angers, France.He received his medical training in Paris and practiced for a few years in Angers before succumbing to tuberculosis. Ophthalmologically he is noteworth for his translation of the treatise by William→Lawrence "*Traité Pratique sur les Maladies des Yeux*" Paris 1830. Albert

Billi, Domenico (18th century) Italian ophthalmologist. Almost nothing is known about his life. Only a book written by him and published in Ancona 1749 is known: *"Breve Trattato delle Malatie degli Occhi "* Ancona 1749, which was merely a compilation from French, German and English ophthalmologists. American Encyclopedia of Ophthalmology,vol.2,p.954, Albert

Binkhorst, Cornelius D. (1912-1996) Dutch ophthalmologist. Binkhorst was born in Rotterdam, the Netherlands. He received his medical training at the University of Leiden, the Netherlands, finishing in 1939. He continued at the Leiden University Eye Hospital for training in ophthalmology. In 1955 he went to London, England, and studied with Harold→Ridley, returning to Terneuzen where he began implantation of intraocular lenses in the Netherlands. His first contributions for the improvement of lens implantation were cleaning and sterilizing techniques so that the lenses would be less toxic. The difficulties in successfully inserting Ridley lenses encouraged Binkhorst to try the new rigid and Dannheim anterior chamber lenses. The problems that these caused made him rethink the whole matter of lens implant support in the eye. In 1957 he developed the four-loop (pupilsupported) iris clip lens and implanted the first one on August 11, 1958. It became obvious to him that these lenses were much more stable after extracapsular surgery, with the posterior capsule supporting the posterior loops of the lens implant. Binkhorst coined the terms *pseudophakodonesis* and *endophthalmodonesis* and advocated extracapsular surgery for lens implantation, with marked reduction of the incidence of corneal decompensation and retinal detachment. Fixating the posterior loops in the capsular bag, he then removed the anterior loops of the lens implant and began the modern era of capsular bag fixated lenses in 1965. Binkhorst published almost 70 articles. He wrote: *Toxoplasmosis* Leiden 1948. He was a founder of the International Intraocular Implant Club and one of its distinguished presidents. He was also a president of the Netherlands and the European implant societies. He received five medals, including the prestigious Snellen Medal of the Dutch Ophthalmological Society, and was an honorary member of five national implant societies. He was honored as a Freeman of the city of Terneuzen. Arch Ophthalmol 1995,113:980

Birch-Hirschfeld, Felix Victor (1842-1899) German pathologist who studied medicine in Leipzig and graduated there 1867. Among his teachers were C.Wunderlich (1815-1877) and R.Wagner(1805-1864) from whom he benefited most. In 1870 he became Prosector at the City Hospital in Dresden and the following year teacher in pathologic anatomy at the Military Medical School for Graduates.In 1874 Birch-Hirschfeld became medical adviser to the Saxon Medicinal Collegium and 1879 physician to the Dresdner City Hospital. He wrote several contributions and articles but his main work was his "*Handbuch der pathologischen Anatomie*" , Leipzig 1876 (several editions subsequently). Many of Birch-Hirschfeld´s works contain passages on the pathology of the eye. The Graefe-Prize

(founded by Professor von →Welz) was awarded to him for his work on the *"action of ultra-violet and X-rays upon the eye"*. American Encyclopedia of Ophthalmology,vol.2, p. 978-979.

Bird, Friedrich Ludwig Heinrich (1793-1851) German psychiatrist, served as an army surgeon for several years before receiving his medical degree at Halle in 1817. From this experience he wrote: *"Beobachtungen über die epidemische Augenentzündung im Kriegsjahre "* Halle 1824. His later years were spent in Bonn. Bird's extensive writings deal chiefly with psychiatric subjects.Albert

Bird, Urbar S. (1867-1919) American ophthalmologist and oto-laryngologist of Tampa, Florida, well known in the South. He received his medical degree at Tulane University, New Orleans, in 1895, and at once settled in Tampa. Ten years later he went again to New Orleans, where he studied ophthalmology and oto-laryngology for two years. Returning to Tampa he practised there as ophthalmologist and oto-laryngologist for the remainder of his life. He was a member of the American Laryngological, Rhinological and Otological Society and a surgeon of U. S. volunteers during the war with Spain. He also held a lieutenant's commission in the American Army during the Great War, and was honorably discharged Dec. 5, 1918. AJO 1919,2:458

Bischoff, Frederick (18th century). Nothing is known about this author who wrote: *"A treatise on the extraction of the cataract"* London 1793.

Biswas, Samir Kumar (1929-1974) Indian ophthalmologist. Samir Kumar Biswas was born in Khatura, a village in the Nadir district of West Bengal and was educated at the St Xavier's College and the Medical College, Calcutta. He was always a meritorious student and graduated in 1954 and passed DOMS of Calcutta University in 1956. He then went to the United Kingdom where he obtained the FRCS and FRCS Ed in 1962, having obtained the DO London in 1961. He then returned to India where he was attached to the Eye Infirmary, Medical College, Calcutta for several years until he became Associate Professor and head of the department of ophthalmology of the Nilratan Sircar Medical College, Calcutta. Biswas was a brilliant ophthalmologist, a very skilful surgeon, a keen academician and held in high esteem by his patients, students and friends. His complete dedication to the profession, genuine warmth and unassuming character made him loved by all who knew him. He was recognised internationally as an authority on corneal grafting and an operation performed by him was televised by the BBC, showing the high esteem in which he was held. He worked for a time at the Retina Foundation, Boston, and at the Ad de Rothschild, Paris. He was also a Fellow of the American College of Surgeons. Dohlman and he developed a new variety of keratoprosthesis. He was an enthusiastic member of the All India Ophthalmological Society. Biswas was a good organiser and established the Atul Ballav Eye Bank and Research Center in the NRS Medical College, Calcutta. Biswas earned following titles and qualifications: MRCS and FRCS 1962; DOMS Calcutta 1956; DO London 1961; FRCS Ed 1962; FACS. *Ind. J. Ophthalmol*. 1976, 23:46. JPW

Bjerrum, Jannik Peterson (1851-1920). Danish. The *reinvention of campimetry* by Bjerrum in 1889 was an important step in early diagnosis of glaucoma. Hirschberg, History of ophthalmology, Vol.XI/3d, Bonn 1994. *See* also: American Encyclopedia of Ophthalmology, vol.2 (1913): *Bjerrum´s method of perimetry & Bjerrum´s test types* (pp.1003-4).

Black, George William (1903-1987) British ophthalmologist. George William Black was born in Boston, Lincolnshire and was educated at Boston Grammar School and at the Middlesex Hospital, qualifying in 1926. During his early years in London he became very conscious of the divisions in English life, joining the Fabian Society and becoming a lifelong socialist. He was strongly influenced by George Bernard Shaw and moved in many literary and political circles, also frequenting theatres and art galleries. After qualifying he pursued a career in ophthalmology and initially built up a private practice in London before joining the consultant staff at Leeds in 1933. He was a pioneer in corneal grafting and also in the repair of retinal detachment. He was a founder member of the British Faculty of Ophthalmologists and served as its representative on the Council of the Royal College of Surgeons. Throughout his life in Leeds George built up a small

collection of works of art. Among his friends he counted Jacob Epstein whom he had met during the war. With his family in the United States and fearful that they might not see him again, he sat for the sculptor in his operating gown. Although he retired from his hospital appointment in Leeds at the age of 65 he continued as a locum consultant in Wakefield for a further five years as well as doing clinics in Wakefield prison and acting as a council member for the Royal National Institute for the Blind. Brit. med. J. 1988, 296:507.LFRCSE

Black, John Isaac Munro (1909-1989) British ophthalmologist. Munro Black was born on 23 January 1909 in Harton, County Durham, the son of Ernest Black, a clothier and amateur artist. He was educated at South Shields High School and Durham University Medical School, graduating with honours in 1931 and being awarded the Philipson Scholarship for the best marks in the final MB. His early appointments included that of house surgeon to Professor Grey Turner and after passing the FRCS in 1935 he became surgical registrar at the Royal Victoria Infir-mary. Two years later he was appointed consultant in ear, nose and throat surgery to the hospital and in - 1938 was a ~unterian Professor at the Royal College of and later he also joined the staff of the Gordon Hospital. He was appointed President of the Proctological Section of the Royal Society of Medicine in 1945 and gave his presidential address on the topic of non-specific intestinal granuloma. During the second world war he served at Ashridge Hospital. He was a Freemason and was appointed to the staff at the Royal Masonic Hospital, a post which gave him great pleasure. He also worked at Putney Hospital and the Florence Nightingale Hospital. He became a Member of the Court of Examiners of the Royal College of Surgeons, and external examiner to Oxford and Cambridge Universities a4d Trinity College, Dublin. As an administrator, he laid many of the foundations for the expansion of Charing Cross Hospital Medical School. He earned following titles: MRCS and FRCS 1935; MS 1936; MD 1937. Charing Cross Hosp. Gazette, 1959, 57, no.3, 155 ; Ibid. 1984, 73, 33. LFRCSE

Black, Kenneth (1880-1959) British ophthalmologist. Black was formerly professor of surgery and lecturer in ophthalmology at King Edward VII Medical College, Singapore, and Surgeon to the General Hospital, Singapore.

Blair, Charles Samuel (1859-1939) British ophthalmologist. Blair was born at Forest Hall, Newcastle-upon-Tyne, son of the Rev. James Samuel Blair, vicar of Killingworth, Newcastle-upon-Tyne. He was educated at Durham School and having won a university scholarship in 1878 entered the University of Durham College of Medicine, Newcastle, before it moved to Orchard Street. He received his M.R.C.S. 24 October 1884; F.R.C.S. 9 December 1897; M.B. Durham 1882 and his M.D. in 1888. Coming to London he took postgraduate courses at the London and St Bartholomew's Hospitals. He then determined to devote himself to the practise of ophthalmic surgery, acted as chief clinical assistant at Moorfields, surgeon to the Western Ophthalmic Hospital and clinical assistant at the Royal Eye Hospital, Southwark. He then settled in Richmond, Surrey, where he was ophthalmic surgeon to the Royal Hospital. He was also ophthalmic surgeon to the National Association for promoting the welfare of the feeble-minded. Blair wrote: *Errors of refraction and their treatment*. Bristol, 1905; 2nd ed. 1910. An example of a published paper by Blair is: *Extensive non-pigmented choroidal changes*. Trans. ophthal. Soc. U.K. 1906, 26:99. Blair´s son C.J. Longworth Blair also became an ophthalmic surgeon in Richmond, Surrey. LFRCS 1930-1951:85

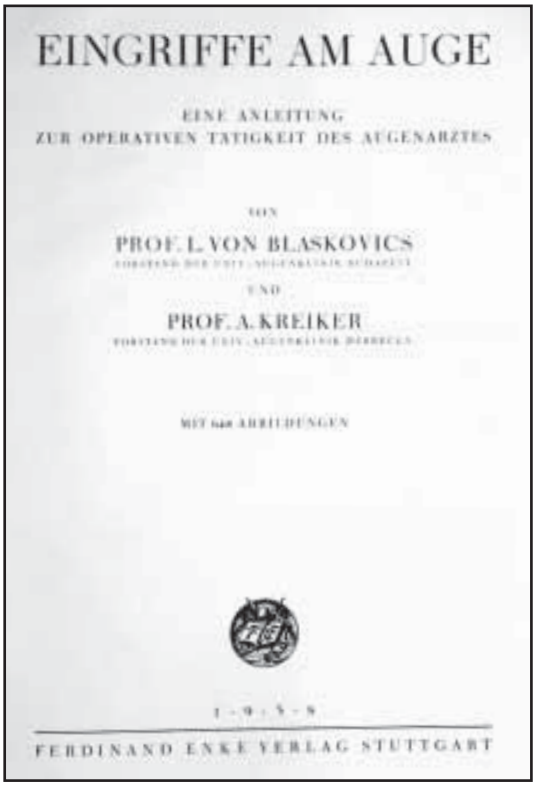
Blake, Eugene Maurice (1882-1969) American ophthalmologist. Blake entered medical school directly from the Bridgeport High School and received his medical degree from Yale in 1906, and then interned at the Hartford Hospital. After his internship, he became associated in practice of ophthalmology with A.N.Alling for five years. He joined the staff of the Yale Medical School in 1907, became clinical assistant in 1908, instructor in 1910, professor in 1926. Yale University awarded him a master of science degree in 1929, and was made head of the department from 1935 until 1951. From 1920 he was surgeon at the New Haven Hospital and served as a consultant at many other hospitals. He served as Captain in the Army Medical Corps during the first World War. During the second World War be was chief of the eye panel at the New Haven Induction center, a member of the committee for British relief, and in 1944 chairman of the greater New Haven area of

American Relief in Italy. He was instrumental in the formation of the Connecticut Society for the Prevention of Blindness, the first state chapter in the nation. In 1959 he received the first Helen Keller award made by the Connecticut Society. For many years he was a director of the National Society for the Prevention of Blindness, served on its executive board, and in 1947 was vice president. He served as secretary-treasurer of the American Ophthalmological Society from 1938 to 1942 and was elected its 50th President in 1946. He was a member of the board of governors of the American College of Surgeons from 1948 to 1953. He served as president of the New York Ophthalmological Society in 1950, Yalemen in Medicine in 1940, and New Haven Medical Association in 1942. He was a member of the American Medical Association, Association of Research in Ophthalmology, Sigma Xi, New York Academy of Medicine, the Connecticut Medical Society, and Societe-Francaise d' Ophtalmologie. In later years Dr. Blake restricted his practice to glaucoma and served as a member of the Advisory Council for Research in Glaucoma and Allied Diseases of the Alfred P. Sloan Foundation. In 1950 he suggested a possible relationship between corticosteroids and glaucoma (Am.J.Ophth 33:1231, 1950). AJO 1970,69:693-694

Blanchard, Donald (1947) American ophthalmologist and translator. He graduated from Oregon Health Sciences University in 1973. He completed his residency in ophthalmology there in 1978 training under Dr. Kenneth Swan and Dr.Robert Burns. He had a private practice in La Grande, Oregon for 13 years and then moved to Portland, Oregon where he worked at Kaiser Hospital. He is currently retired, but works part time as a volunteer clinical instructor at Casey Eye Institute. Hobbies include collecting color atlases of the ocular fundus and translation of early new high German ophthalmic texts. Bibliography: 1) "Vogtherr's Büchlin" Proceedings of the Cogan History of Ophthal. Society, 1996; 2) "Vogtherr's Büchlin", reprinted Documenta Ophthalmologica, 1997, vol. 93, No.1-2.pp 73-79; 3) *Ophthalmodouleia* Bartisch, G. trans. Wayenborgh, 1996; 4) *The Ophthalmoscope* Schett, A. trans. Wayenborgh 1996; 5) *The History of Spectacles* Vol 1 Schmitz, E in press Wayenborgh; 6) "*Handel and His Blindness*", Proceedings of the Cogan Ophthal. Society, 1999; 7) "*Handel and His Blindness*" Documenta Ophthalmologica in press; 8) "*Bartisch on Theriac*" Archives of Ophthalmology" in press; 9) "*One Hundred of the Most Important Ophthalmology Books of the 20th Century*" (Thompson, H. Stanley and Blanchard, D. Archives of Ophthalmology" in press; 10) *Theriac Bartisch*, G. trans., Blanchard's Books, 2000; 11) *Kunstbuch* Bartisch, G. trans in preparation Wayenborgh.; 12) *Leonart Fuchs* (Albert, M. Daniel and Blanchard, D. in preparation. (AB)

Laszlo Blaskovics

Blaskovics, Laszlo von (1869-1938) Hungarian Ophthalmologist. Laszlo Blaskovics, the son of a manager of the Hungarian State Railways, was born at Rézsahegy. He studied in Budapest and began his ophthalmologic career in the university clinic of Professor →Schulek in 1893. After having spent 10 years at the university, in 1905 he was appointed head of the Trachoma ward of St. Stephen's Hospital. In the same year he was awarded Privatdocent in ocular surgery. In 1907 he became the Director of the newly established Hungarian State Eye Hospital, where he worked for 20 years. In 1927 he succeeded Professor →Hoor in the Second Chair of Ophthalmology in Budapest, where he remained until his death in 1938. The scientific activities of Professor Blaskovics were extremely rich in comprehension. Although his publications were fewer than those of his contemporaries, they were of high standard. His chief interest and main field of surgery were the plastic operations of the eyelids. His ptosis operation is of standing value which intervention is performed to the present day (1970) with his original technique or with hardly any modifications throughout the world. He was a prominent surgeon, however, perhaps he was more illustrious in elaborating new surgical techniques. During his life the description of 27 of his original operations and 9 of his newly constructed instruments were published. Surgeons from all parts of the world visited him to learn the technique of his lid operations. He was also greatly interested in the problems of the tests for the determination of visual acuity. His newly perfected reading charts are even used today. He worked out a new unit for visual acuity, the '*Oxyoptria*. At the age of 29 he had written his excellent '*Ophthalmological Surgery*' ('*Szemeszeti mutettan*') which ran several editions. An enlarged edition of the same work in collaboration with Kreiker, entitled '*Eingriffe am Auge*', appeared in German in Stuttgart 1938. He contributed the chapter on eye-


EINGRIFFE AM AUGE

EINE ANLEITUNG
ZUR OPERATIVEN TATIGKEIT DES AUGENARZTES

VON

PROF. L. VON BLASKOVICS

UND

PROF. A. KREIKER

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1958

FERDINAND ENKE VERLAG STUTTGART

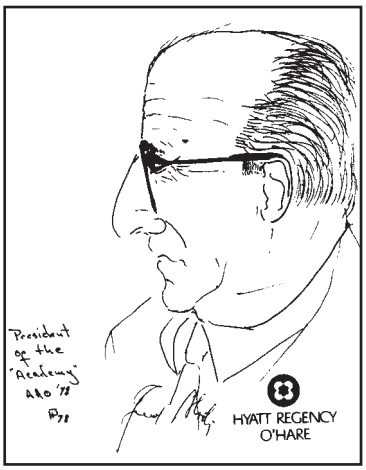
operations to the '*Handbook of Ophthalmology*', edited by Hoor-Grosz (1909). For 40 years he remained quiet, modest but active member of the Hungarian Ophthalmological Society and was its Chairman from 1920 to 1925 and from 1934 to 1936. He was also member of the Forensic Medical Council and of several foreign Ophthalmological Societies. His publications were written mainly in Hungarian and German. Although he did not participate in the international ophthalmological scientific activities personally, and rarely attended international conferences, his achievements admit him into the first rank of the highstanding ophthalmologists of the world. Magda Radnot: *Famous Hungarian Ophthalmologists* (Budapest, 1970); BJO 1938,22:700-701

Blaxter, Peter Llewelynn (1918-1997) British ophthalmologist born in Tonbridge. Blaxter received his medical training at St.John´s College and Guy´s Hospital. Following qualification in 1942 , he held house appointments at Guy´s and after a three year period of National Service began his ophthalmic career at Guy´s and Moorfields. In 1950 he was appointed consultant ophthalmologist at Fulham Hospital. During the period 1948-54 he was Research Assistant at the Institute of Ophthalmology. In 1954 he left London and moved to Manchester where until 1982 he was consultant ophthalmic surgeon at the Manchester Royal Eye Hospital. From 1956 until 1982 he also was ophthalmic surgeon to the Manchester Jewish Hospital. During his career he was Vice President of the ophthalmic section of the Royal Society of Medicine, President of the North of England Ophthalmological Society in 1971, council member of the OSUK. From 1967-1982 he was on the council of the Faculty of Ophthalmologists and was Master of the Oxford Ophthalmological Congres in 1975 and 1976. Blaxter was examiner for the ophthalmic nursing board, the British Orthoptic Board, and on the Court of Examiners of the Royal College of Surgeons. Influenced by his contemporaries, like T. Keith →Lyle, his main interest was ocular motility.BJO 1997;81:806.

Blessig, Robert (1830-1878) Russian ophthalmologist. Born St.Petersburg, received in Dorpat his M.D. Became physician in chief to the *Ophthalmic Hospital* in 1863. Papers in Graefe Archiv between 1861-1868. American Encyclopedia of Ophthalmology, Vol.2 (1913) pp.1115.

Blézin, Jean (? - 1609) French. Oculist & general practitioner. Became 1584 Dean of the faculty in Montpellier (France).He published the works of his uncle Jean Blézin Schyron who taught at the same faculty from 1520-66.He wrote an unsuccessful book titled "*L´usage du vin guérit-il la Faim et l´Ophtalmie?*" (Does Wine heal Hunger and Blindness?") American Encyclopedia of Ophthalmology,Vol.2,p.1116.

Blizard, William (Sir William) (1743-1835) Famous British surgeon. Studied surgery under Pott and Hunter. Was appointed surgeon at Magdalen Hospital, later at the London Hospital where he founded, with MacLaurin, a medical school. He became a F.R.S.in 1785. He wrote several books and articles, but only one in ophthalmology: "*A New Method of Treating the Fistula Lachrymalis*" in *Philosophical Transactions*, vol.70,1780. American Encyclopedia of Ophthalmology,vol.2,p. 1220; Concise Dictionary of National Biography,Oxford 1925.



Frederick C. Blodi by Paul Henkind

Bloch, Marcus Eliezer (1723-1799) German physician. Studied first medicine with a Jewish physician in Hamburg, then at the University of Berlin, later in Frankfurt/on-the-Oder where he received his degree. He settled in Berlin where he became a well known physician and naturalist. He only important writing in ophthalmology was: *Abhandlung von Pyrmonter Augenbrunnen*. Berlin 1774. American Encyclopedia of Ophthalmology,vol.2,p.1221-1223.

Blodi, Frederick C. (1917-1996) Austrian, later American ophthalmologist. Grown up in Mödling, medical education and M.D.1940 at Vienna, 1st.University Eye Clinic under →Joseph Meller (1874-1968) , Joseph →Böck and →A.Pillat (1891-1975). Blodi moved to America in 1947 and supported by a stipend from the World Health Organization became

a fellow with Algernon →Reese at Columbia in New York City, New York Eye Institute (Columbia University), invited by Alson E. →Braley he accepted a post as an ophthalmic pathologist in Iowa and became the Chair of ophthalmology at Iowa University Hospitals (Iowa City) from 1967 to 1984 , and Director at King Fayed Eye Clinic, Riyadh, Saudi-Arabia. He wrote in 1964, with Lee Allen and Alson Braley *Stereoscopic Manual of the Ocular Fundus in Local and Systemic Disease*, in 1985: *"The Eye , Vision and Ophthalmology on Postage Stamps"* , in 1988 *Differential Diagnosis of Eye Disease* and translated 1977→A.Vogt: *"Textbook & Atlas of Slit Lamp Microscopy of the Living Eye"* (3 vols.) Bonn:Wayenborgh Publ. 1978-81[GM 1527] →Hirschberg´s *"History of Ophthalmology"* (11 volumes in 21 parts) [GM 5996] ; 1978: Poulet: *"Atlas on the History of Spectacles"*(2 vols.). He also was for a decade editor of *Archives of Ophthalmology* .Blodi edited 1972 and 1974, volumes 3-4 of *Current concepts in Ophthalmology* (Mosby). He published countless papers in various journals and was Chairman of the *American Board of Ophthalmology* in 1975, President of the *American Academy of Ophthalmology* in 1979, President of the *Association of University Professors in Ophthalmology* in 1982, Blodi was awarded the *Lucien Howe Medal* from the *American Ophthalmological Society* in 1980 and became their President in 1991 and in 1995 was named *Honorary Member* of the same Society. In the last 130 years only two members of this Society before him received these three honours: Arnold→ Knapp and Frederick →Verhoeff. JPW; H.Stanley →Thompson(Internet UI Ophthalmology , Home Page Dec 96-Jan 1998); Argus 1996, Nov/Dec. p.33; Arch Ophthalmol 1997,115:436-437 ; AJO 1997,123:438-440.

Boase, Arthur Joseph (1901-1986) British ophthalmologist born in British Guiana. Educated at Mount St.Mary´s, the Jesuit College in Derbyshire, and at St.Thomas´ Hospital Medical School, where he graduated in Medicine, aged 22 years. In1924 he joined the Colonial Medical Service and was appointed to Uganda. Early in his career he specialised in ophthalmology , though this had to be combined with the duties of a general medical officer until 1945, when he was finally gazetted as Senior specialist ophthalmologist. In addition to his clinical duties, Arthur Boas was at various times President of the East African Association of Surgeons and the Uganda branch of the BMA. Together with colleagues he was instrumental in founding the medical school at Makerere. Boase retired from Uganda in 1956 to take up the post of warden of the Ophthalmic Hospital of the Order of St.John in Jerusalem. On retirement from Jerusalem in 1969 he went to live in Uckfield, Sussex and continued there to work part-time until he was 76 years old. Among other honours he was awarded the KStG and the KStJ .BJO 1986; 70:478-479. Brit med J.1986,292:705.JPW

Bock, Emil (1857-1916) Slovenian ophthalmologist born in Galicia, who received his medical degree in Vienna 1881. He worked several years under →Stellwag von Carion before settling 1889 as an ophthalmic surgeon in Laibach (Ljubljana). Bock´s underspeciality in ophthalmology was the pathology of the eye. Among others he wrote: *"Die Angeborenen Kolobome des Augapfels"* Wien 1893; *" Zur Kenntnis der gesunden und kranken Thränendrüse"* Wien 1896. Bock´s complete library was bought by JP Wayenborgh 1972 and used to complete →Dor´s library, now Mary and Edward →Norton Library at Bascom Palmer Institute in Miami. JPW; Albert.

Joseph Böck

Böck, Joseph (1901-?) Austrian. Medical degree 1939 at the University of Vienna, Professor and director of the eye clinic at the University of Graz 1947.Professor and Chair in Vienna 1955. Co-author with J. → Meller:*"Augenärztliche Eingriffe"*, 5th edition 1946, 6th edition 1950 and the English translation of the same title. Countless articles since 1953 in different German journals. Kürschners Gelehrten- Kalender 1966, p.203.

Boeder, Paul (1902-1995) American scientist, optician and teacher in physiological optics. Boeder will be remembered by the many ophthalmologists he has reached during his long career while teaching physiological optics. Boeder came to America from Hamburg, Germany, during the height of inflation following World War I. He worked on an assembly line for the Ford Motor Company and as a telephone operator for Bell Telephone. But his disciplined mind and rigorous thinking made him reconsider his goals. He entered graduate school to study mathematics and completed his education at the University of Göttingen in Germany. During the early 1930s he returned to the United States and taught mathematics

at Susquehanna University in Selinsgrove, Pa. Adelbert Ames, a seminal leader at the Dartmouth Eye Institute became acquainted with Dr Boeder and in vited him to join the faculty at Dartmouth Eye Institute, while American Optical appointed Dr Boeder to direct its Bureau of Visual Sciences with the purpose of developing optical devices, such as a lens, to correct aniseikonia. A career-determining influence arose out of Dr Boeder's association with W. R. Lancaster, MD. Dr Lancaster had organized an instruction course in ophthalmology for physicians returning from World War II. The elderly statesman of ophthalmology asked Dr Boeder to teach optics in that course. Paul took over on very short notice and he continued to teach in most basic science courses in ophthalmology in this country until he was 79 years old. Alson E.→Bradley, MD, Head of the Department of Ophthalmology at the University of Iowa invited Boeder to join the department in Iowa City, thus providing a home base for Paul Boeder, who was independently supported by American Optical with a lifetime annuity. Paul presented optics in a consistent, logical manner; he confined his presentations to those optical problems that had unique solutions. Paul never practiced refraction, partly because he did not have the training and partly because it would not permit him to remain "exact." Paul also contributed significantly to the theory of extraocular muscle function. He finished his last scientific manuscript at the age of 84 years. Among the many honors that Dr Boeder received, one was an international symposium organized in his honor in 1975 and another was an oral history by the American Academy of Ophthalmology published in 1992. Arch Ophthalmol 1995,113:980

Hermann Boerhaave

Boerhaave, Hermann (1668-1738) Dutch physician, born in Voorhaut, Holland. He received his M.D. in 1693 at the University of Leiden, where he became a popular lecturer. Boerhaave is considered the father of the modern method of clinical instruction and is considered to be the founder of practical ophthalmology in the eighteenth century. In addition, he was the first to describe accurately the muscular fibers in the ciliary body, and he gave wide dissemination to Maitre-Jan's and Brisseau's revolutionary theory as to the true nature of cataract. Boerhaave´s chief works are:"*Institutiones Medicae*" 1708 and "*Aphorismi de Cognoscendis et Curandis Morbis*" 1709. Ophthalmologically, his main work was: "*Praelectiones publicae de morbis oculorum*" Göttingen 1746 which was translated into French "*Des maladies des yeux*" Paris 1749 and in German "*Kurtze doch gründliche Abhandlung von Augenkrankheiten Nürnberg*" 1751. American Encyclopedia of Ophthalmology,vol.2,p.1240-1241.Albert

Bogaert, Baron Ludo van *see* **Van Bogaert**

Böhm, Ludwig (1811-1869) German ophthalmologist. Böhm was a pupil of Dieffenbach, the inventor of the strabismus operation. He received his M.D. from the University of Berlin in 1841 and soon became a professor there. As a surgeon with an extensive practice, he devoted himself mainly to ophthalmic procedures. Böhm developed nonsurgical methods for the treatment of strabismus, poor vision, and nystagmus. He wrote *Nystagmus und seiner Heilung*, Berlin 1857 [the *first* book on this subject]; "*Das Schielen und der Sehnenschnitt in seinen Wirkungen auf Stellung und Sehkraft der Augen*" Berlin 1845 and *Die Therapie des Auges mittels des farbigen Lichtes* Berlin 1862.Albert, American Encyclopedia of Ophthalmology,vol.2,p.1241-1243.

Boissier de Lacroix de Sauvages, François (1706-1767) French botanist and physician born in Alais (Gard). He first studied in Montpellier, later, from 1830, for 15 months in Paris. He returned to Montpellier where he was named Professor at the medical faculty. He became famous for his book "*Nosologia methodica sistens morborum classes..etc*" Leiden 1760. He wrote many other books, of which in ophthalmology: "*Nosologia methodica oculorum : or a new treatise on the diseases of the eyes ... selected and translated from the Latin ... with medical annotations by George Wallis* London 1785.

Boissonneau, Auguste P., French maker of artificial eyes of the 19th century. He wrote:"*Mémoire sur la prosthèse oculaire et sur les améliorations apportées aux yeux artificiels*" Paris 1840.Albert

Böke, Wilhelm (1924-1993) German ophthalmologist. Lecturer at the University of Münster 1958, Professor 1964. From 1967 professor and chair University of Kiel. Immunology and allergy research. About 180 papers in various journals between 1952 to 1985. Böke was editor of Kortikosteroide in der Augenheilkunde 1972; Ocular Immune

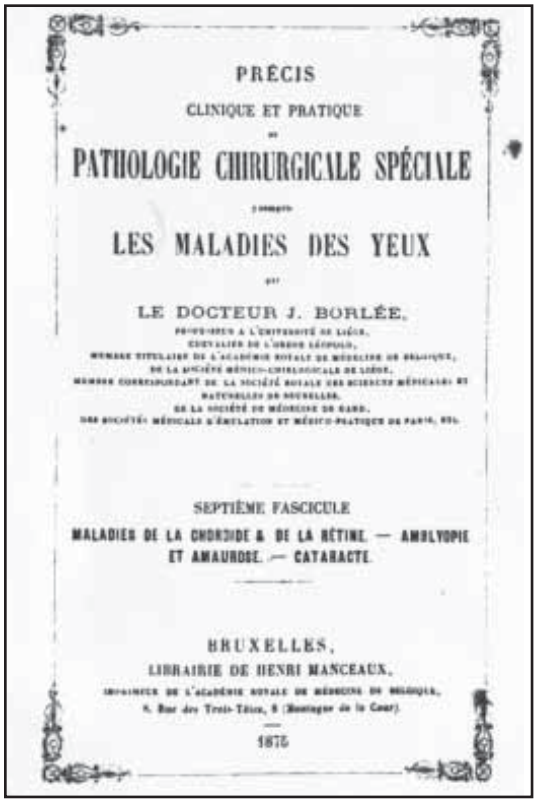
Responses Strasbourg 1974. He contributed to: *Sammlung zwangloser Abh.aus d. Geb.d. Augenheilkunde* 22, 1960; Velhagen:*Der Augenarzt*, Vol.VI, 1964; *Lehrbuch und Atlas d. Augenheilkunde*. Kürschners Gelehrten- Kalender 1966, p.210 & 1987, I, 401.

Bolton, James (1812-1869) American ophthalmologist, born in Savannah, Georgia, where he received his M.D. at the College of Physicians and Surgeons in New York in 1836. Afterwards Bolton studied eye and ear diseases with John Kearny Rodgers and Valentine Mott. After serving in the Civil War, he settled and practiced in Richmond, Virginia. He was the author of: *"A treatise on strabismus, with a description of new instruments"* Richmond 1842. *"De l'oeil artificiel humain"* Saint-Cloud c.1855. *"Renseignements généraux sur les yeux artificiels "*... Paris 1866. *"Quelques mots sur la cataracte"* Paris 1837.Albert

Bonnet, Amédée (1802-1858) Celebrated French surgeon and ophthalmologist. Born at Amberieu. He received his medical training and degree in Paris. Before his graduation he won a gold medal as *"interne"* for his work. The same year of his graduation (1832) , he competed for the position of *surgeon major* at the Hôtel Dieu in Lyon, and easily that position won. He held this post for eleven years. Among his writings, the most important in ophthalmology was: *"Traité des Sections Tendineuses et Musculaires dans le Strabisme, la Myopie, la Disposition à la Fatigue des Yeux..."* Lyons 1841. American Encyclopedia of Ophthalmology,vol.2,p.1246-1248.

Pierre Borel

Borel, Pierre (1620-1689) French physician born in Chartres. He received his medical education in Montpellier, returned to Chartres to practise, moved 1653 to Paris to become later *Councillor* to the King and Fellow of the Academy. He wrote *"Bibliotheca Chemica"* Paris 1654 ; *"Historiarum, et Observationum Medico-physicaram Centuria "* 1653 [GM 260]; *"De Vero Telescopii Inventore"* 1655 [GM 261]. American Encyclopedia of Ophthalmology, vol.2, p.1250.


PRÉCIS
CLINIQUE ET PRATIQUE
DE
PATHOLOGIE CHIRURGICALE SPÉCIALE
DES
LES MALADIES DES YEUX
PAR
LE DOCTEUR J. BORLÉE,
SEPTIÈME FASCICULE
MALADIES DE LA CHOROIDE & DE LA RÉTINE. — AMBLYOPIE ET AMAUROSE. — CATARACTE.
BRUXELLES,
LIBRAIRIE DE HENRI MANCEAUX,
1875

Borlee, Joseph-Augustin (1817-1907) Belgian ophthalmologist. Borlee was born in Huy (province of Liège). He obtained his M.D. degree in 1842 and the special doctorate in 1845, both at Liège University. He teached ophthalmology from 1848 to 1881 among many surgical matters and even osteology, myology and legal medicine. He wrote on scrophulous, rhumatismal and purulent ophthalmia, but his principal achievement has been a text-book of surgical pathology including the eye diseases (1872). He defended the diathetic theories and blood-letting. He did not believe in microorganisms and rejected Jäger's inoculation technique which was recommended by Van→Roosbroeck. His pupil Lucien→Leplat said that he extracted cataract without anesthesia but with success. He much developed the department of ophthalmology. He was member of the (French) Belgian Academy of Medicine. (Verriest)

Borri, Giuseppe Francesco (1627-1695) Italian Jesuit priest and physician of Milan. He wrote: *"Epistolae duae. 1. De cerebri ortu & usu medico. II. De artificio oculorum humores restituendi. Ad Th. Bartholinum."* Copenhagen 1669.Albert

Borthwick, George (18th cent.,) Irish military surgeon and later a physician practicing in Elkenny, Ireland. He wrote: *"Treatise upon the extraction of the crystalline lens."* Edinburgh 1775. Albert

Boruchoff, S. Arthur (1925) American ophthalmologist, born in Boston, MA, USA. He received the A.B. from Harvard College (1945), the M.D from Boston University (1951), and the M.S. (in ophthalmology) from New York University (1956). He served a resident under Dr. Conrad Berens at the New York Eye and Ear Infirmary (1951-1956), during which he spent a year studying the vitreous body supervised by Sir Stewart Duke-Elder and Professor Norman Ashton at the Institute of Ophthalmology, London (1954-1955). Returning to Boston, he began a clinical practice primarily concentrating in cornea and external diseases, and a 35 year long association with the Massachusetts Eye and Ear Infirmary and Professor Claes H.→Dohlman. He attained the rank of Associate Professor of Ophthalmology at Harvard Medical School and subsequently Professor of Ophthalmology at Boston University. His bibliography lists some 90 publications, primarily in the area of corneal diseases and surgery with special interest in the corneal dystrophies. The topic of his Castroviejo medal presentation before the American Academy of Ophthalmology (from which he received both Honor and Senior Honor Awards) was ″*Unusual Aspects of the Corneal Dystrophies*″ (1988). In addition, he has had the honor of having several named lectureships (the John McCullough lecture at the University of Texas, Galveston, 1979, and the Albert C Snell lectureship, Rochester, N.Y. 1994). Some examples of his publications are ″Boruchoff, S A and Goldberg,B.: *Edrophonium (Tensilon) in the diagnosis of Ocular Myasthenia Gravis*. Arch. Ophthalmol. 53: 718,1955″, ″Boruchoff, S A and Kuwabara T.: *Electron Microscopy of Posterior Polymorphous Corneal Dystrophy*. Am. J. Ophthalmol. 72: 879,1971″ and ″ Boruchoff, S A, Weiner MJ, and Albert, D.: *Recurrence of Posterior Polymorphous Corneal Dystrophy after Penetrating Keratoplasty*. Am. J. Ophthalmol. 109: 323, 1990″. He is the recipient of the Paton award from the Eye Bank Association of America (1993) and the Silver Medal from the Association for the Prevention of Blindness in Mexico (1978). (S. Arthur Boruchoff, MD: Department of Ophthalmology, Boston University, Boston, MA., U.S.A., e-mail: boruchof@bu.edu)(JPW)

Borysiekiewicz, Michael (1848-1899) Born in Galicia, he studied in Vienna under→Arlt (1872-74), became assistant under Stellwag von Carion (1874-80), became professor in Innsbruck and later professor and chairman in Graz. He wrote ″*Untersuchungen über den feineren Bau der Netzhaut*″ Leipzig and Wien 1887 and ″*Weitere Untersuchungen über den feineren Bau der Netzhaut*″ Leipzig and Wien 1894 and ″*Beiträge zum feineren Bau der Netzhaut von Chameleo vulgaris*″1899

Bosch, Joseph J.J. (1794-1873). Dutch. Born in Maestricht (Netherlands), Bosch studied in Douai, Strasbourg & Paris. MD in Leyden (Netherlands) in 1815. He became for twenty years chief surgeon at the Hospital of Maestricht, professor for obstetrics and instructor of anatomy and surgery. He was nominated member of the Belgian Academy in 1843 and returned to Brussels 1845. Bosch became vice director of the Eye Institute of Brabant. In 1847 he was appointed physician for the indigent. Three relevant publications in *Annales d´Oculistique* 1850-53.

Bouchut, Eugène (1818-1891) French physician of Paris. He received his M.D. in 1842 and was for many years associated with the Hôpital des Enfants Malades. He wrote several works on the use of the ophthalmoscope in diagnosing neurological disorders : ″*Du diagnostic des maladies du système nerveux par 1'ophthalmoscopie*.″(text and atlas) Paris 1866; ″*Atlas d'ophthalmoscopie médicale et de cérébroscopie montrant chez l'homme et chez les animaux les lésions du nerf optique*″Paris 1876.

Bouguer, Pierre (1698-1758) French hydrographer, was the founder of experimental photometry and of atmospheric optics. Bouguer invented the photometer to assist in his studies of the transmission and gradations of light. Both of the publications listed below were published and edited posthumously by Nicolas Louis de La Caille: ″*Traité d'optique sur la gradation de la lumière*″ ... Paris 1760. ″*Optice de diversis luminis gradibus dimetiendis, opus posthumum*″ Vienna 1762.

Bouisson, Etienne Fréderick (1813-1884) French physician. Studied medicine at Montpellier where he received his medical degree in 1835. He accepted a chair of physiology at Strassburg and moved 1840 to Montpellier to become *seriatim* , a professor teaching various branches of medicine. Bouisson was from 1867 until 1879 Dean of the Faculty. He was a prolific writer: his collected works consisted of 14 volumes. His

ophthalmic articles appeared in *Annales d´Oculistique*, 1847, pp.100-104; *Journal de la Médecine Pratique* (1847); *Montpellier Medical* (1860 & 1863); *Gazette Médicale de Paris* (1863). American Encyclopedia of Ophthalmology,vol.2,p.1254-1255

Bourgeois, Charles Guillaume Alexandre (1759-1832) of Amiens, France, was a painter and physician who became interested in the systematic study of colors and color perception. His experiments resulted in several publications of value to the field of physiological optics.He authored: "*Mémoire sur les couleurs de l'iris, produites par la réflexion de la lumière*" Paris 1813.

Bourne, William, M. (1943-) American Ophthalmologist, Professor of Ophthalmology at Mayo Clinic. He graduated from University of Iowa with MD degree in 1969, and studied Ophthalmology at the University under Prof. Frederic C.→Blodi. He joined the staff of the Mayo Clinic in 1975, was appointed Professor of Ophthalmology in 1985, and serves in this position since then. In professional societies, he serves as a Trustee of the Association for Research in Vision and Ophthalmology (ARVO, 1994-2001), was on the Executive Committee of the Castroviejo Society (1985-1989), and is a Member of the American Ophthalmological Society since 1983. His editorial assignments include *Invest. Ophthalmol. Vis. Sci.*(1992-1997), *Am. J. Ophthalmol*. (1984-present) and *Cornea* (1981-1996). His major research interest is physiology and pathology of the cornea, and he is one of the pioneers of corneal specular microscopy that allows study of the corneal endothelium in the living eye (*Specular microscopy of human corneal endothelium in vivo*. Am. J. Ophthalmol. 81:319, 1976, *Clinical specular microscopy*. Trans. Am. Acad. Ophthalmol. Otolaryngol. 81:743, 1976). The honor awards he received include R. Townley Paton Award and Lecture (Cryopreservation by vitrification: progress in permanent corneal storage, 1994) and Castroviejo Medal and Lecture (Cellular changes in transplanted human corneas, 2000). (Department of Ophthalmology, Mayo Clinic, 200 First St. SW Rochester MN 55905,U.S.A., phone:+1-507-284-4572; fax: +1-507-284-8566; e-mail: bourne.william@mayo.edu)(SM)

Bourquenod, Jean Pierre (?-?) French surgeon. Son of Pierre Bourquenod. Professor of Anatomy in Montpellier at the time of the dissolution of the institution in 1792, who seems to have practised ophthalmology to some extent. He wrote in the "Journal Médical de Montpellier" an article titled "*Rapport fait à la Société de Médecine Pratique de Montpellier sur une Tablette pour Faciliter l´Operation de la Cataracte*". American Encyclopedia of Ophthalmology,vol.2,p.1255; H.Truc & P.Pansier *Histoire de l´Ophtalmologie à l´Ecole de Montpellier*, Paris 1907,p.221.

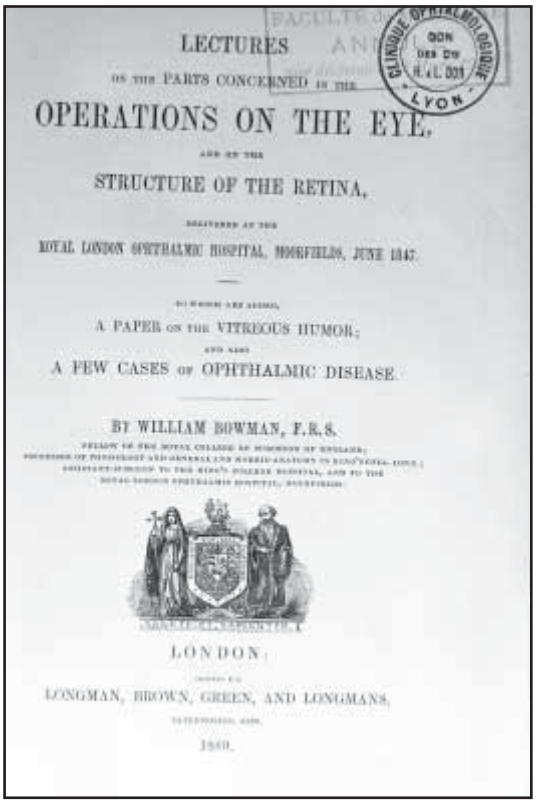
Bourquenod, Pierre (?-?) 18th century French anatomist and surgeon, father of Jean Pierre B., who devoted some attention to ophthalmology. He became Master in Surgery in 1729 and was one of the four professors instituted by the king in 1742. He was the teacher of →Pellier de Quengsy and of Pierre François →Pamard(1729-1793) whom he often assisted in cataract operations. American Encyclopedia of Ophthalmology,vol.2,p.1256; H.Truc & P.Pansier *Histoire de l´Ophtalmologie à l´Ecole de Montpellier*, Paris 1907, p.221.

Bowden, Bernard James (1927-1980) New Zealand ophthalmologist. Bernard James Bowden was born at Mt Albert, Auckland, the only son of William and Catherine Bowden. He was educated at Takapuna Grammar School and entered Auckland University as a Sinclair Scholar, graduating BSc in 1948. He spent that year as a junior master at King's College, Auckland, but he then decided to study medicine and in 1949 he entered the Otago Medical School. He graduated MB, ChB with distinction in surgery in 1953. He held house surgeon posts at Auckland and Gisborne and then became ophthalmic registrar at Auckland Base Hospital. In 1954 he married Dr Katharine Thomson and in 1957 they came to the United Kingdom where he held the posts of outpatient officer at Moorfields Eye Hospital, senior registrar at the Bristol Eye Hospital and tutor in ophthalmology at the University of Bristol. during this time he obtained the FRCS England and Edinburgh in ophthalmology. He became FRACS in 1961. On returning to New Zealand Bernard Bowden became ophthalmic surgeon to the Northland Hospital Board and held this post for the rest of his life. He was a skilful surgeon with an exceptional academic background and an acknowledged leader in his speciality. In 1974-1975 he was President of the Ophthalmological Society of New Zealand and for a number of years Examiner in

Ophthalmology in the final examination of the FRACS. He was President of the New Zealand Medical Association when he died. Bowden visited with his wife the Cook Islands annually and performed many operations, especially for cataracts in these remote islands where they made firm friendships with the doctors with whom they stayed. He saw the problems of the children and young people in these distant places and he organised the distribution of books and educational texts to various schools and villages in the Cook group. His titles were: MRCS and FRCS 1960; BSc Auckland 1948; MB, ChB Otago 1953; FRCS Ed 1959; FRACS 1961. N.Z. med. J. 1981, 93: 89-90. JPW

Sir William Bowman

Bowman, William (Sir William) Paget (1816-1892) Celebrated British ophthalmologist. He began his medical studies at the Birmingham General Hospital and went 1833 to London where he entered King´s College Hospital. He became 1835 demonstrator in Anatomy. Aged 22 he visited hospitals in Holland, Germany,Austria and France. On his return he was appointed to the chair of Physiology and General & Morbid Anatomy. In 1843 Bowman was made assistant surgeon at the Royal Ophthalmic Hospital and seven years later full surgeon at the same institution. He held this position for 25 years until he was required to retire, having reached the age of 60. Bowman discovered and was the first to describe:the *anterior elastic lamina* of the cornea and the *corneal iterspaces*. (Bowman´s membrane and Bowman´s tube).The muscularity of the ciliary body, or in other words the ciliary muscle (almost together with Ernst →Brücke in Vienna. He invented useful lachrymal probes which beared his name. He was the first to indicate the true nature of zonular, or lamellar, cataract. Bowman invented and developed a large number of instruments and operation methods.When in 1851 (the year of Helmholtz ´s invention of the ophthalmoscope) Donders and Graefe visited London they made the acquintance of Bowman. The trio became very close friends. A circle that did not break until Albrecht von Graefe´s early death in 1870. These three genies were a constant source of encouragement and stimulus. Bowman received a knighthood, and the presidency of the International Medical Congress in London 1881. He co-founded in 1880 the Ophthalmological Society of Great Britain and for three consecutive years was made president of this new organization. He wrote:"*Lectures on the parts concerned in the operations on the globe, and on the structure of the retina*" London 1848; "*Lectures on the parts concerned in the operations on the eye, and on the structure of the retina*" London 1849 [GM 1505] and with Robert Bentley Todd and Lionel S. Beale: "*The physiological Anatomy and Physiology of Man*" London 1857. His *Collected Papers* were published in London 1892. He also wrote several papers of which five are annoted in Garrison and Morton´s Medical Bibliography [GM 542,1231,1505,5867 and 5879]. American Encyclopedia of Ophthalmology,vol.2,p.1257-1260. Albert, JPW.



LECTURES

ON THE PARTS CONCERNED IN THE

OPERATIONS ON THE EYE,

AND ON THE

STRUCTURE OF THE RETINA,

DELIVERED AT THE

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS, JUNE 1847.

TO WHICH ARE ADDED,

A PAPER ON THE VITREOUS HUMOR;

AND ALSO

A FEW CASES OF OPHTHALMIC DISEASE.

BY WILLIAM BOWMAN, F.R.S.

LONDON:

LONGMAN, BROWN, GREEN, AND LONGMANS.

1849.

Boyd, Benjamin F. (1926-) Panamanian Ophthalmologist, Emeritus Professor of Ophthalmology, University of Panama School of Medicine, and Chairman of the Board of HIGHLIGHTS OF OPHTHALMOLOGY INTERNATIONAL. He was born as the grandson of Federico Boyd, one of the fathers of Independence of the Republic of Panama. He graduated from Duke University, North Carolina, U.S.A. in 1945 with B.A. degree and then from North-Western University School of Medicine, Chicago, Illinois in 1949 with M.D. degree. He studied Ophthalmology at Gorgas Hospital in Panama, and completed

residency training in 1953. During the Korean War, Gorgas Hospital served as a Center for treatment of wounded people coming from the War. It had multiple high top specialists with which Dr. Boyd trained in different subspecialties. He then received Diplomate of American Board of Ophthalmology. He is the Founding Professor of Ophthalmology and Chairman of the Dept. of Ophthalmology, University of Panama, School of Medicine (1953-1974); Former Dean and Chief, Department of Surgery, University of Panama School of Medicine (1969-1970). He is now Emeritus Professor of Ophthalmology, University of Panama, School of Medicine; Founder and Chief Consultant, Ophthalmology Center of Clinica Boyd Panama, R.P. His professional activities are extensive and he has held the following positions: Immediate Past-President, Academia Ophthalmologica Internationalis (1994-1998); Past-President (1985-1987) and Executive Director (1960-1985) Pan-American Association of Ophthalmology; Honorary Life Member, International Council of Ophthalmology (Concilium); Chairman of the Board and Editor in Chief, *Highlights of Ophthalmology*; Fellow, American Academy of Ophthalmology; Fellow, American College of Surgeons; Guest of Honor, American Medical Association, 1965; Guest of Honor, American Academy of Ophthalmology, 1978 and Barraquer Institute in Barcelona, 1982 and 1988, Doctor Honoris Causa of Five Universities; Past-President, Academy of Medicine and Surgery of Panama, 1968-70; O´Brien Visiting Professor of Ophthalmology, Tulane University School of Medicine, New Orleans, 1983. His editorial assignments embrace Editor in Chief and Chairman of the Board, Highlights of Ophthalmology´s bi-monthly eleven Editions (Brazilian, Chinese, English, German, Hebrew, Indian, Italian, Japanese, Middle East and Spanish) 25 annual Volumes. He is the author of *Highlights of Ophthalmology* , Atlas and Textbooks (23 Volumes) published in hard cover (English and Spanish) soft cover in Portuguese (Brazil), Italian and Chinese. For the his outstanding contributions to the World Ophthalmology and humanity, he received 10 Honor Awards that include Doctor Honoris Causa; the Duke-Elder International Gold Medal Award (International Council of Ophthalmology), the Barraquer Gold Medal (Barcelona), the First Benjamin F. Boyd Humanitarian Award and Gold Medal for the Americas (Pan American), award presented every two years to the ophthalmologist who has most contributed to humanity in the Western Hemisphere, The Gradle Gold Medal for teaching (Pan-American);the Great Cross of Vasco Nunez de Balboa, Panama´s highest award, and the Great Cross of Christopher Columbus, Dominican Republic´s highest award, for "*Contributions to Humanity*"; the Leslie Dana Gold Medal for Prevention of Blindness and the U.S. National Society for Prevention of Blindness Gold Medal, Moacyr Alvaro Gold Medal (Brazil), the Jorge Malbran Gold Medal (Argentina), the Favaloro Gold Medal (Italy), the Ophthalmological Foundation of Colombia Medal; the Andres Bello Silver Medal from the University of Chile for "*Extraordinary Contributions to World Medical Literature*." His Honorary Member of Ophthalmological Societies of Argentina, Bolivia, Brazil, Canada, Colombia, Costa Rica, Chile, Dominican Republic, Guatemala, Mexico, Paraguay, and Peru. (Benjamin F. Boyd, M.D., F.A.C.S. Chairman of the Board *Highlights of Ophthalmology* International P.O. Box 6-3299, Panama, Rep. of Panama : Phone No. (507) 236-2354 Office :
Fax No. (507) 236-2437 Office : E-mail: benboyd@hophthal.com)(SM)

Boyd, Thomas Alexander Somerville (1918-1993) Scottish ophthalmologist. Thomas Boyd was born in Glasgow on 7 June 1918, the son of Harold Arthur Boyd and his wife Edith, nde Somerville. He was educated at Glasgow Academy. His father was chairman and director of the family engineering business, J & T Boyd Ltd., and Thomas went through an engineering apprenticeship from 1935 to 1937. He then took the decision to enter medicine and was accepted at Glasgow University Medical School, qualifying in 1942. After rotating intemships in Glasgow and Stirling he joined the RAMC in 1943 as a general duty medical officer. He soon took up a traineeship and subsequently qualified as graded ophthalmologist, serving in military hospitals in Belgium, Germany, Tripolitania, Palestine and Cyprus. He was appointed consultant ophthalmologist in Bangour, but after three years decided to move to Edmonton, Canada, taking his CRCS(C) in 1959, and FRCS(Canada) in 1973. Between 1962 and 1974 he gained over thirty research grants, and his energetic research projects resulted in over forty publications, chiefly in the *Canadian journal of ophthalmology* and the *Transactions of the Canadian Ophthalmic Society*. Boyd earned following titles: MRCS and FRCS 1954; BS Glasgow 1942; DOMS 1948; CRCS Canada 1959; FRCS Canada 1973. LFRCSE

Boyer, Alexis (1757- ?) French physician, for a certain time surgeon-in-chief to Napoleon´s army. His first position was copyist to a notary, then at the age of 17 he went to Paris where he became assistant to a barber, at the same time attending lectures in anatomy. He received 1781 a gold medal from the Ecole Pratique du Collège de Chirurgie. He was made 1807 "Baron de l´Empire". Among the books he wrote , the most important is "*Traité des Maladies Chirurgicales et des Operations qui leurs Conviennent*" , 11 vols. Paris 1814-26. For its time this huge treatise is interesting for ophthalmologists because its fifth volume is entirely devoted to the diseases of the eyes. American Encyclopaedia of Ophthalmology,vol.2,p.1266.

Boyer, Lucien A.H. (1804- ?) French ophthalmologist, born at Turin(Italy) from French parents, he studied in Paris where he received his medical degree in 1836. He wrote an unsuccessful thesis in an attempt to win the Monthyon prize, titled "*Recherches sur l´Opération du Strabisme*" (2 vols.) 1842-1844. He wrote also "*Discussion Clinique sur quelques Observations d´Hernie Etranglée*" 1849. He was from 1852-1870 physician to the Senate. American Encyclopedia of Ophthalmology,vol.2,p.1266. Albert.

Boyle, Charles Cumberson (1854-1931) American ophthalmologist who wrote: "*Therapeutics of the eye*." New York 1896. Albert

Boyle, Robert (1627-1691) chemist, physicist, and natural philosopher, born at Lismore, Ireland, was tutored privately and developed interests in astronomy, mathematics, and the empirical method in the physical sciences. He lived in and conducted research at Oxford (1650-1668) and London (1668-1691). Studies in optics and the properties of color were among his experimental work. He authored: "*Experiments and considerations touching Colours*" London 1664. Most of his books were translated into Latin and published in Geneva by de Tournes : "*Experimenta et considerationes de coloribus*". Geneva 1680; "*Disquisition about the final causes of natural things by way of appendix, some uncommon observations about vitiated sight*". London 1688; "*The works to which is prefixed the life of the author.*" (5 volumes) London 1744.Albert, JPW.

Brailey, Arthur Robertson (1877-1930) British ophthalmologist, son of W.A. Brailey, Ophthalmic Surgeon to Guy's Hospital. Brailey was educated at Westminster, he gained a scholarship at Downing College, Cambridge, and completed his medical course at Guy's Hospital, where he gained a University entrance scholarship. He also spent some time in Vienna. Qualifying at " the Colleges " in 1903, he took the M.B., M.C., Cantab. in 1904, having in the previous year obtained his M.A., B.Ch. His F.R.C.S. dated from1904. He was House Surgeon and Ophthalmic House Surgeon at Guy's Hospital and later Clinical Assistant in the Ophthalmic Department ; and he succeeded to his father's practice. Early in the Great War Brailey served in the R.N.V.R., and later became Consulting Ophthalmic Surgeon to the R.A.F. He was Hon. Surgeon to the King and Surgeon-Captain R.N.V.R., in which he held the post of Senior M.O., London Division, the headquarters of which are in H.M.S. President. Brailey contributed papers to the *Transactions of the Ophthalmological Society* on "*Congenital Distichiasis* " and on "*Cysts of the Pars Ciliaris Retinae*" in 1906, 1907; and he was one of the three openers in 1919 in the discussion on the "*Visual Requirement of Aviators*," when he gave a most practical exposition of this subject. BJO 1930,14:539-540; Guy´s Hospital Gazette 1930,44:347; Lancet 1930,2:505, The Times 13 July 1931,19b. LFRCS

Brailey, William Arthur (1845-1915) British ophthalmologist. He gained a scholarship at Downing College, was placed second in in the first class of Natural Science Tripos. He took an exhibition in biology at the preliminary scientific examination for the M.B. London and took the M.B. at Cambridge, was elected Fellow of Downing College and remained for some time at Cambridge where he acted as "coach" in the Natural Sciences. He married 1873 and entered general practice at Witham, Essex, Ten months later he returned to London, rejoined Guy's Hospital and became attached to Moorfields Eye Hospital. At Guys's Hospital he was elected demonstrator for anatomy and zoology from 1878 to 1886 and at Moorfields librarian and curator. He remained at Moorfields from 1875 to 1881. Brailey was appointed assistant ophthalmic surgeon to Guy's Hospital in October 1882 and held this office until his retirement in August 1905. In 1880 Brailey took a prominent part in founding the Ophthalmological Society of the United Kingdom, the first president of which was Sir William ->Bowman, with whom Brailey had formed a

lasting friendship. Many of Brailey's communications can be found in the first volumes of the *"Transactions of the Society "* . Most of his contributions in ophthalmology were published in the *Royal London Hospital Reports, Guys Hospital Reports* and in the *Transactions* of the *International Medical Congress* held in London 1881 and in Berlin 1890.He was joint author of the article on the iris and ciliary body in ->Norris and Oliver's *"System of Diseases of the Eye"* In 1885-86 Brailey was Hunterian Professor at the Royal College of Surgeons of England. In 1890 the Middlemoore Prize was conferred upon him by the Council of the British Medical Association and he was later elected Honorary Fellow of Downing College, Cambridge.The Ophthalmoscope, 1915,p.268-270.

Braille, Louis (1809-1852) French blind teacher of music who modified the →Barbier dotted system. He went 1819 to the school for the blind in Paris, became proficient on the organ and held a post as organist in one of the Paris churches. He became professor at the *Institution des Jeunes Aveugles* where he perfected the Barbier system having now "letters" in *all* languages. He wrote: "*Procédé pour écrire au moyen des points*" Paris 1837.[GM 5851]. About his work appeared: "*Anaglyptographie et raphigraphie de Braille*" Paris 1880. American Encyclopedia of Ophthalmology, vol.2, p.1267.Albert

Braley, Alson Emmons (1906-1993) American ophthalmologist. He was born in Iowa, attended college and medical school in Iowa City, and in June 1931, with a fresh M.D. in his hand, he married Hazel Deming. After his internship, he spent a year as a pathology resident, taking a special interest in bacteriology while he was waiting for one of the coveted positions as a C. S. O'Brien ophthalmology resident. He began to work with Phillips Thygeson, and together they started some trachoma projects at Fort Defiance, Arizona. After completing his ophthalmology residency in 1937, he stayed on in Iowa City for a year or two as an instructor in the Department of Ophthalmology, continuing his work in virology and trachoma. In 1939, the Braleys moved to Detroit and he practiced ophthalmology with Parker Heath and held an appointment as assistant professor at Wayne State University. In 1941, he took a similar appointment at the Eye Institute at Columbia Presbyterian College of Physicians and Surgeons in New York. From 1943 to 1946 he served in the United States Navy and then returned to Columbia. In 1949, he was appointed professor and head of the Department of Ophthalmology at New York University College of Medicine. The following year, Cecil Starting O'Brien retired and moved to Arizona, and Braley was persuaded to return to Iowa city to take O'Brien's place at the head of his home department. Braley felt comfortable in Iowa City, and he set about making life agreeable for his faculty and residents. He already had P.J.→Leinfelder (neuro-ophthalmology, lens metabolism) and Lee Allen (artist, inventor, photographer, and ocularist) on the faculty and he soon recruited F.C.→Blodi (ophthalmic pathology), Phil Ellis (ocular pharmacology), Hermann→Burian and later Gunther von→Noorden (pediatric ophthalmology), Paul→Boeder (optics), Mansour Armaly (glaucoma), and Ed Ferguson and Bob Watzke (retinal surgery). Braley brought corneal transplantation to Iowa in 1952. From 1954 to 1961 he worked toward the founding of the Eye Bank Association of America, and was its president in 1971. In December 1962, Braley and his fellow ham radio operator, Ted Hunter, started the Eye Bank Network with 15 members. They would meet on the air every evening to chat and to direct available donor eyes to ophthalmologists who needed corneas for keratoplasty. Under Braley's leadership the University of Iowa Department of Ophthalmology grew to become an internationally recognized center for ophthalmic research and teaching. In 1967, he handed over the reins of the department to Fred→Blodi. AJO 1993, 116:259-260

Branca (15th century) Italian layman of high distinction in the annals of science, father of Antonio →Branca. To him is due the revival of plastic surgery, including plastic surgery of the eyelids. American Encyclopedia of Ophthalmology,vol.2,p. 1287-1289.

Brandes, Fred (1870-1943) Belgian ophthalmologist who studied ophthalmology in Brussels under →Gallemaerts and J.B. →Coppez, in Utrecht under Snellen, in Berlin under Hirschberg and Greef. He published from 1900 many cases of *ocular tuberculosis* at the Belgian Ophthalmological Society. (Verriest)

Braun, Gustav (1824-1897) Russian ophthalmologist who received his medical degree in Moscow 1852 and became military physician 1856. After soon resigning, he turned his

attention to ophthalmology He was appointed Director of the Moscow Ophthalmic Hospital in 1863 and five years later director of the Chair of Ophthalmology at Moscow University. His most important writings are "*De Cornea Fabrica ac Functione Quaedam*" Diss. Moscow 1858; "*Structure and Function of the Retina*" (Moscow Medical Gazette), 1861 ; and "*On the Accommodation and its Anomalies*" (Moscow Medical Gazette), 1861. American Encyclopedia of Ophthalmology,vol.2,p.1289.

Braun, Reinhard (1902-?) German ophthalmologist .University lecturer at Berlin 1933, Professor ,Rostock 1939. Articles in different journals from 1931 until 1948. Kürschners Gelehrten- Kalender 1966,p.256.

Braunschweig, Hieronymus *see* **Brunschwig Hieronymus**.

Brecht, Otto (1864-1915) German ophthalmologist. The Ophthalmoscope,1916, p.391.

Brett, Frederick Harrington (1803-1859) British ophthalmic surgeon. He held several surgical posts in India, including superintending surgeon to the Calcutta Government Eye Hospital. Brett settled in London about 1846 and practiced surgery at the Western Ophthalmic Institution. He was the first surgeon outside America to use ether anesthesia. He wrote: "*On cataract, artificial pupil, and strabismus*." London 1847 and "*A lecture on the eye to which is added, an account of the first series of surgical operations performed on the eye without pain, under the influence of the vapour of sulphuric aether*." London 1847.

Brewerton, Elmore (1867-1962) British ophthalmologist who was one of the distinguished ophthalmic surgeons whose period of service covered a remarkable development in ophthalmic medicine and surgery. He said he was the first of the staff of the Royal Westminster Ophthalmic Hospital to take off his jacket and roll up his sleeves to operate. Brewerton entered St. Bartholomew's Hospital in 1890, qualified in 1895, and obtained his F.R.C.S. in 1900. He was on the honorary staff of the Royal Westminster Ophthalmic Hospital till he retired at the age of 60 in 1927, which by a happy coincidence was the opening day of the new buildings of the Hospital. After his retirement he continued with a large private practice till failure of vision from macular retinal degeneration compelled him to give up in 1945. During the 1914-1918 war he had been on the staff of the Fourth London General Hospital and for a number of years was chief assistant in the Eye department of St. Bartholomew's Hospital where he was perhaps unlucky not to be elected to the honorary staff. He was a good operator and his interest in this branch of ophthalmology led to his collaboration with Harold Grimsdale in the production of a *Text-Book of Ophthalmic Operations* -a book which at the time filled a gap in English text-books and which went into several editions. He became a member of the Ophthalmological Society of the United Kingdom in 1899, served as Member of Council 1909-1910 and 1914-1917, was Secretary 1910-1913, and Vice-President 1925-28. He was also President of the Ophthalmological Section of the Royal Society of Medicine. BJO 1963,47:576

David Brewster

Brewster, David (Sir David) (1781-1868) Scottish scientist, born in Jedburgh, Scotland, and educated at the University of Edinburgh. He became editor of the Edinburgh Magazine and the Edinburgh Encyclopedia, wrote extensively on optics, and was a maker of instruments such as the kaleidoscope and the lenticular stereoscope. His interest in optics led to numerous discoveries, one of which resulted in the introduction of the dioptric system to British lighthouses. Brewster coined the term "*color blindness*." He was the author of: "*A treatise on new philosophical instruments ... with experiments on light and colours*." Edinburgh: J. Murray and William Blackwood, 1813; "*On the structure of the crystalline lens in fishes and quadrupeds*" London 1816; "*The Life of Sir Isaac Newton*." London 1831; "*A treatise on optics*." London 1831; French edition : *Manuel d'optique; ou traité complet et simplifié de cette science*. (2 vols.) Paris 1833; American edition: *A treatise on optics containing an elementary view of the application of analysis to reflexion and refraction*. Philadelphia 1833; "*Letters on natural magic, addressed to Sir Walter Scott*." London 1832 ; "*Memoirs of the life, writings and discoveries of Sir Isaac Newton*." (2 vols.) Edinburgh 1855; "*The stereoscope*" London 1856. Albert, BMC

Bribosia Jr., Edmond (1857-1930) Belgian ophthalmologist. Bribosia confirmed in 1882 the local anesthetic action of cocain discovered the same year by Koller in Vienna. He

used for the first time cocaine at the Namur Ophthalmic Institute in 1884. He wrote also on the use of adrenalin in ophthalmology. (Verriest)

Bribosia Sr., François-Louis (1825-1900) Belgian ophthalmologist. Bribosia was born in Namur and obtained the M.D. degree in Leuven. He studied ophthalmology under von →Graefe and modified his method of linear cataract extraction (1870). He created an ophthalmic institute also in Tournai. He received the order of the Legion of Honor for care of the wounded french soldiers in 1870. He was one of the founders of the French Ophthalmological Society. (Verriest)


CONTRIBUTION

A

L'OPÉRATION DE LA CATARACTE

PAR EXTRACTION LINÉAIRE MODIFIÉE

PAR

M. LE DOCTEUR BRIBOSIA

BRUXELLES,
LIBRAIRIE DE HENRI MANCEAUX,

1870

Bridgeman, Hon. Geoffrey John Orlando (1898-1974) British ophthalmologist. The Hon. Geoffrey John Orlando Bridgeman, the second son of the first Viscount Bridgeman, was born on 3 July 1898 at 39 Harley Street, London. He was educated at Eton and Trinity College Cambridge, and served in the Royal Field Artillery during the first world war, and was awarded the MC in 1918. He qualified in medicine from St George's Hospital in 1926, took the MB,BCh two years later, and became FRCS in 1933. After working as chief clinical assistant at Moorfields and ophthalmic surgeon to the East Ham Memorial Hospital he was appointed ophthalmic surgeon to St George's and to the Western Ophthalmic Hospital. During the second world war he served as a Brigadier in the RAMC as consulting ophthalmologist India Command. He served his teaching hospital, St George's, most loyally and devotedly, as he also did the Western Ophthalmic Hospital. At Moorfields he worked in Frank Juler's clinic and was deeply grateful to him, and under the stimulation of Keith Lyle he developed a lively interest in orthoptic work. In middle and later life he was increasingly handicapped by deafness, so that in later years he was seldom seen at congresses. Geoffrey Bridgeman made many lasting friendships at Eton and took a prominent part in games. At Trinity College he was awarded a classical exhibition. When he entered Trinity he decided to read medicine and for a time had strong leanings towards medical missionary work. Throughout his life he was a deeply religious man and in 1919 he married Mary Talbot, a staunch churchwoman. Bridgeman received following titles: MC 1918; MRCS 1926; FRCS 1933; MB,BCh Cambridge 1926; LRCP 1926. Brit. med. J. 1974, 4:474. JPW

Brière, Leon (?- ?) French ophthalmologist. He wrote : "*Etude clinique et anatomique sur le sarcome de la choroïde et sur la mélanose intra-oculaire*." Paris 1874.

Briggs, William (1642-1704) British physician, born in Norwich, England. Briggs studied medicine with R.Vieussens at Montpellier and at St. Thomas's Hospital in London. He was later appointed physician to St. Thomas's and physician-in-ordinary to William III. Briggs was one of the few seventeenth-century physicians to specialize in treatment of the eye. He provided information for the anatomical study of the eye and worked toward establishing a new theory of vision, based on his understanding of the optic nerves and the optic chiasm. He also provided the first known description of nyctalopia. He authored: "*Ophthalmographia, sive oculi ejusque partium descriptio anatomica*." Cantabrigiae 1676, second edition London 1685 and third edition Leiden 1686, *"Theory of vision"*1682. Concise Dictionary of National Biography (Oxford 1903), Daniel M.Albert: Source Book of Ophthalmology, p.48-50; [GM 5822].

Brihaye, born **Van Geertruyden, Marthe (1924-)** Belgian ophthalmologist. Brihay was born in Etterbeek (Brussels). She obtained the M.D. degree at the Brussels University in 1949 and was attached from 1950 to its Department of Ophthalmology successively as assistant, senior assistant and adjunct departmental head. She obtained in 1963 the special doctorate in ophthalmology with a thesis on the *pigmented choroidal tumors and the origin of the ocular pigments*. In 1965 she became nearly simultaneously professor of ophthalmology at the flemish Brussels University and principal scientific collaborator at the Amsterdam University. Meanwhile she had already made many of her prolonged specialization stays abroad. - 6 months in Paris in 1950, 6 months at the Institute of Ophthalmology in London in 1952-1953, 6 months at the Amsterdam Department of

Ophthalmology in 1964/65, 4 months in several U.S.A Universities in 1969. The main research fields of Mrs. Brihaye and her staff are ocular histo-pathology (already before her 1963 thesis), orbital pathology (*pneumography* in 1960, *orbital tumors* in 1966, *surgery of proptosis* in 1968, *cranio-facial injuries* in 1973, *angiomatous tumors* in 1975), surgical problems such as *cryocoagulation* (experimental studies from 1966 to 1975, with a report for the French Ophthalmological Society in 1971), *phakoemulsification* (from 1972), *experimental and clinical laser treatment* (as from 1975 extensive studies on the effects of Argon laser on the retina, and more recently *effects of Nd YAG laser on the anterior segment and of Argon and Nd YAG laser in glaucoma*). Most of the experimental work was made in cooperation with the Interuniversity Institute of Ophthalmology of the Netherlands in Amsterdam. Recent papers were devoted to specular microscopy of the corneal endothelium. Moreover we could mention many clinical contributions. Mrs. Brihaye has been president of the Belgian Ophthalmological Society (dutch-speaking meeting) and of the Francois Foundation. (Verriest)

Brisseau, Michel (1676-1743) French physician at the Royal Hospital at Douay, France, and a professor of medicine. Neither an ophthalmologist nor a surgeon, he wrote three books describing the nature and location of the cataract as a hardening and clouding of the lens. He published: "*Traité de la cataracte et du glaucoma* ." Paris 1709 [GM 5825]. A German edition was published in Berlin: "*Abhandlung von dem Grauen Stahr und dem Glaucoma oder Grünen Stahr*" Berlin 1743.Albert

Brodhurst, Bernard Edward (1822-1900) British surgeon. Brodhurst first studied general surgery in London and Paris, and, later ophthalmic surgery in Vienna under Jaeger and Rosas. However he returned to his initial interest and became an well known orthopedic surgeon in London. He wrote: "*On the crystalline lens and cataract*." London 1850.Albert

Bronner, Adolph (1860-1936) British ophthalmologist. Of German extraction, he was the son of Edward Bronner, M.D., of Bradford, who took a prominent part in founding the Roval Eye and Ear Hospital of that city. Bronner was educated at Bradford and the University of London. He spent a good deal of time abroad at German Universities and qualified M.D. at Heidelberg in 1884. On his return he became a clinical assistant at Moorfields and took the M.R.C.S.(Eng.) in 1885, before settling in his native city. Bronner succeeded his father as surgeon to the Bradford Eye and Ear Hospital in 1886. The combination of ophthalmology and laryngology in one person was not uncommon at that time, and Bronner combined the work at Bradford, for he became Laryngologist at the Bradford Royal Infirmary. He was a most popular consultant in the north. He was at one time president of the Bradford Medico-Chirurgical Society; and he was also president of the Leeds Medico-Chirurgical Society. On retiring from practice Bronner was elected Consulting Surgeon to the two hospitals he had served so well; while his memory is enshrined in the Bradford Eye and Ear Hospital by a tablet, placed beneath that in memory of his father. Of his work for laryngology this is not the place to say more than that he was secretary of the section of laryngology at the International Medical Congress at Rome in 1894. Bronner joined the Ophthalmological Society of the United Kingdom in 1886 and served on the Council for a period of three years, early in the 20th century. He contributed many papers of clinical importance to the Transactions and frequently joined in discussions. The subjects of these papers covered a wide range in ophthalmic medicine and surgery. BJO 1936

Brown, Albert L. (1899-1963) American ophthalmologist born in Cincinnati who received his undergraduate education in that city. He was graduated from the College of Medicine, University of Cincinnati, in 1922 and interned at the Cincinnati General Hospital. His postgraduate training was at Wills Eye Hospital, Philadelphia, and the Massachusetts Eye and Ear Infirmary, Boston. Brown began practice in Cincinnati and served on the staff of the Jewish, Children's and Christ Hospitals. He was a member of the American Ophthalmological Society and the American Academy of Ophthalmology and Otolaryngology and was presented with the "Key" to that organization. He also served on the National Research Council. In his earlier years, he pursued intensive research at the Children's Hospital where among other studies, he contributed to our knowledge of uveitis and its treatment. Brown was one of the first in the United States to operate for retinal

detachment following its introduction several years earlier by →Gonin and →Lindner and →Guist in Europe. During World War II, his efforts were turned to the study of gas burns and he traveled extensively in this country conducting classes and lecturing on this subject. He went to England and Scotland on the same mission in 1942. Brown wrote extensively on the subjects and investigations of his interests. More than 30 of his contributions has been published.AJO 1964,57:496-497

Brown, Edward Vail Lapham (1876-1953) American ophthalmologist, born in Morrison, Illinois. Edward Brown sought and received a very broad medical education in Chicago, taking up ophthalmology as a specialty soon after his graduation from Rush Medical College. At the Illinois Charitable Eye and Ear Infirmary -one of the institutions indebted to Brown for a permanent elevation of its scientific status- he came under the influence of Ferdinand Carl Hotz, the German-born physician and pupil of Helmholtz and Graefe who had brought the benefits of almost the broadest possible scientific horizon into ophthalmology. To some extent it was Hotz's influence that induced Brown, already a licensed physician practicing ophthalmology, to take further scientific collegiate work which earned him the degree of bachelor of science from the University of Chicago in 1902. Early in his professional career he established personal contacts with several of the European schools. He was particularly attracted by the Viennese group, its master Ernst Fuchs and his associates, Salzmann, Meller and Lindner. It has been said that E. V. L. Brown's ophthalmologic thinking was more European or Austrian than American. Brown was fundamentally a seeker of breadth in medical thinking, a synthetist of findings and views if they stood up under his ultra fair but nevertheless critical analysis. The Viennese school undoubtedly impressed him deeply and, for a long time, held a central position in his ophthalmologic horizon. This manifested itself in Brown's early publications dealing with the patho-histology of uveitis, his translation of Salzmann's *Histology of the Human Eye* (The University of Chicago Press, 1912), and, some years later, of Fuchs's *Textbook of Ophthalmology*. But the second decade of the 20th century found him busily engaged in a typically American field of study-the concept of focal infection applied to ophthalmology. Setting a lasting example of mutually fruitful cooperation between ophthalmologist and internist, E. V. L. Brown and Ernest E. Irons made systematic clinical studies of the incidence of foci of infection in cases of uveitis, of the relationship between the activity of these foci and the activity of the uveitis, and of the effect of eradication of these foci upon the course of the uveitis. Continued for over 15 years with the greatest possible objectivity and accuracy of observation these studies became a classic in the field of uveitis, establishing a standard for all subsequent investigations into the etiology of uveitis. One other field of special interest to Brown, was the application of statistical methods to the refractive state of the human eye and the variations of this state during life. An ardent advocate of the most complete cycloplegic as a means of arriving at basic refractive measurements he had in his office and university records an inexhaustible source of reliable data concerning refractive changes in the same individual. These data were the basis of several important publications. In recognition of his devotion to ophthalmology as an academic discipline and of his extraordinary ability as an administrator and teacher, Brown was offered more headships of departments and occupied such positions for longer than most academicians of his generation. From Rush he moved to Illinois in 1917 and from there to Chicago in 1926. When the statutes of the University of Chicago forced him to retire from the headship of a department that he had built up "from scratch" and guided to national prominence during 16 years of tenure, his friends at the Presbyterian Hospital prevailed upon him to accept the chairmanship of their Department of Ophthalmology, thus extending by another five years Brown's already very long academic life. Throughout his life Brown managed, by means of a very strict schedule, to divide his long working hours equally between private practice and academic work. Brown's favorite ophthalmologic society was the American Ophthalmological Society of which he became a member in 1908, president in 1940, and recipient of the highest award, The Howe Medal, in 1942. Aside from the directly ophthalmologic approach to blindness he very generously lent his services to organizations for the prevention of blindness or betterment of the status of the blind. For 33 years he was a devoted member of the Board of Directors of the Illinois Society for the Prevention of Blindness. In that capacity he worked tirelessly not only toward making all prevention programs of the society more effective, but also toward raising the necessary funds. In recognition of his work on behalf of the blind, The St. Louis Society for the Blind

awarded him the Leslie Dana Gold Medal in 1951. During the latter years of his life, E. V. L. Brown added to his many self-imposed duties the betterment of the social, professional, and scientific status of the black medical student and the black physician. His appointments to the chairmanship of the Chicago Committee on Human Relations and to the presidency of the Board of Trustees of Provident Hospital in Chicago were indicative of his feelings and aims in these matters. AJO 1953,36:865-867

Brown, Robert G W (?-) British scientist. Brown graduated in Physics from London University in 1973. Most of his research career has been spent at the Royal Signals and Radar Establishment in Malvern, UK, the UK Government's Electronics and Radar research center. There he researched photon correlation techniques and their applications to measurement of velocity and macromolecular suspensions, specialising in the use of new opto-electronic technologies. In 1990 he was appointed Head of Opto-Electronics Research at the newly formed Sharp Laboratories of Europe in Oxford, a European Research Center for the Japanese company Sharp Corporation. Since then the laboratory has grown substantially, now exceeding 60 scientists and engineers, with strong activities in semiconductor opto-electronics and displays. In late 1998, Professor Brown was appointed Editorial Director of the Institute of Physics. Dr Brown is a Fellow of the Institute of Physics, a Fellow of the Institute of Electrical Engineers and a Special Professor in the Department of Electrical and Electronic Engineering at Nottingham University. Recently he co-authored a *History of Optics and Opto-electronics* in the Twentieth Century, published in *Twentieth Century Physics* by IOPP and AIP, 1995. (JPW)

Brown, Samuel Horton (1878-1940) American ophthalmologist. Brown was born in Philadelphia and received his medical degree in Pennsylvania University in 1899. With deSchweinitz and Zentmayer , he took the first examinations of the American Board of Ophthalmology when they started it in 1917. He wrote some important ophthalmic subjects, but never was active in the national societies. His later years were given to building up the Bulletin of his country society, and to supporting its Section on Diseases of the Eye. Brown was a Fellow of the College of Physicians of Philadelphia, with its Section on Ophthalmology, and also of the American Academy of Ophthalmology and Otolaryngology. He lived and worked in the most active period of the development of modern ophthalmology, but he kept his interest in developments in other parts of the broad field of medicine. Brown wrote with William C.→Posey: *The Wills Hospital of Philadelphia. The Influence of European and British Ophthalmology upon It, and the Part It Played in the Last 100 Years in Developing Ophthalmology in America.* Philadelphia, Lippincott, 1931. AJO 1940,23:1061; JPW

Browne, Edgar Athelstane (1841-1917) British ophthalmologist born in London, son of Hablot K. Browne who signed many of Charles Dickens illustrations in his early works with "Phiz". Browne studied medicine at St.Thomas´s Hospital. In 1864 he took the diplomas M.R.C.S. and L.M., and L.S.A. in 1865 establishing himself in general practice in Liverpool. He soon after was appointed surgeon to St.George´s Hospital for skin diseases and assistant surgeon in the Eye and Ear Infirmary, devoting himself thereafter exclusively to ophthalmology. In 1884 he became Lecturer on ophthalmology at Liverpool University. He received from that University in 1907 the degree of M.Ch.. Browne wrote: "*How to Use the Ophthalmoscope* " (1877) and jointly "*Manual of School Hygiene*".AJO, vol.1,p.292-293; Brit.J.O. Vol.1,p.589.Albert.JPW

Browning, Sidney H. (1884-1968) British bacteriologist. Browning qualified from Guy's Hospital, and after fulfilling resident posts, including that of house surgeon to Arbuthnot Lane, came under the aegis of Professor Eyre, one of the leading bacteriologists at a time when that science was in a period of active development and growth. A growing point was the bacteriology of the eye, in which Professor Eyre was particularly interested and in which he was a pioneer. Doubtless this influenced Sidney Browning, who made it his specialty. In 1910 he was appointed bacteriologist to Moorfields Eye Hospital and held the post for 33 years, retiring in 1943, when he was appointed honorary consulting bacteriologist. He was indeed part of the Hospital over all that period; the surgeons and generations of residents appreciated his ready help and his good humour. Countless ophthalmologists in training received their special knowledge from his systematic lectures, which were much valued for their incisiveness and from his carefully prepared specimens.

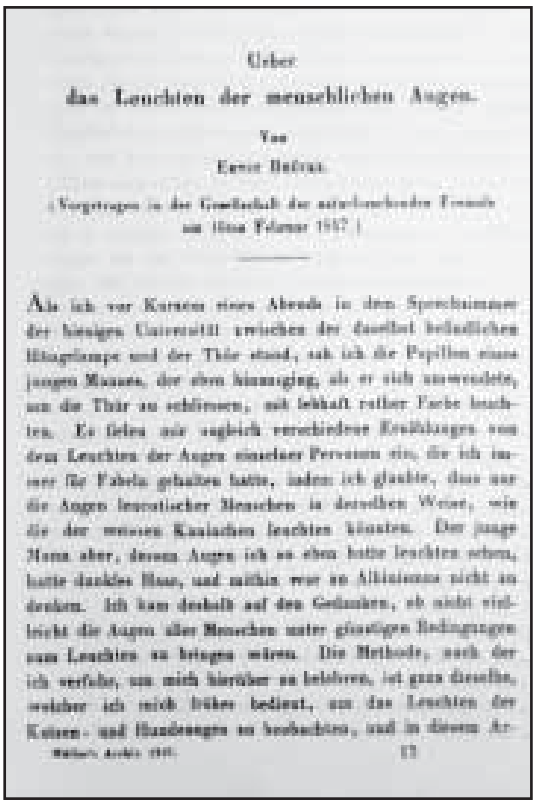
He was one of the very few surviving Foundation Members of the Oxford Congress, of which he had been Deputy Master; in late years his two favourite jaunts had been Henley Regatta and the Congress, which he last attended in 1963. He was a qualified engineer, and on leaving Hospital was appointed Managing Director of a well-known engineering firm-surely a rare achievement for a medical man. After some years he retired completely and went to live alone in a cottage at Kingston Deverill near Warminster. BJO 1968,52:287

Brubaker, Richard Fretwell (1937-) American Ophthalmologist, Professor of Ophthalmology at Mayo Clinic. He graduated from Harvard Medical School in 1963 with his MD degree granted, and studied Ophthalmology at Massachusetts Eye and Ear Infirmary under Prof. D. G.→Cogan (1964-1968) and further extended his studies at the National Institute of Health under Prof. Ludwig von Sallmann (1968-1970). He has worked at the Mayo Clinic since 1970, Professor of Ophthalmology of Mayo Medical School (1980-2000), Chairman of he Department of Ophthalmology (1984-1992), President of Mayo Staff, Mayo Clinic Foundation (1990), Medical Director, Mayo Medical Ventures (1994-2000) and Member of Board of Trustees of Davidson College (1999-). He is very active in research with a particular attention to physiology and pathology of aqueous humor circulation and glaucoma: for the excellence of his research, he received many honor Awards, e.g. Alcon Research Award, 1984, 1995, NIH MERIT Award of the National Eye Institute (1989), von Sallmann Prize from the International Society of Eye Research (1990)(publication ?), Friedenwald Award from the Association for Research in Vision and Ophthalmology, 1991 (*Flow of aqueous humor in humans*. Invest. Ophthalmol. Vis. Sci. 32: 3145, 1991) and 52nd Edward Jackson Memorial Lecture (*Delayed functional loss in glaucoma*. Am. J. Ophthalmol. 121: 473, 1996). Some examples of his recent publications are "*The effect of dorzolamide on aqueous humor dynamics in normal human subjects during sleep*. Ophthalmology 105: 1537, 1998", "*Tonometry and corneal thickness*. Arch. Ophthalmol. 117: 104, 1999" and "*Measurement of aqueous humor flow by fluorophotometry in the presence of a dilated pupil*. Invest. Ophthalmol. Vis. Sci. 40: 542, 1999". (Department of Ophthalmology, Mayo Clinic, 200 First St. SW Rochester MN 55905,U.S.A., phone: +1-507-284-3760; fax: +1-507-284-8566; e-mail: brubaker.richard@mayo.edu)(SM)

Bruce, Gordon M. (1901-1992) Canadian ophthalmologist, born in Nova Scotia. Dr. Bruce attended Acadia University and Columbia University and received both the B.A. degree and the M.D. degree (1925) from Dalhousie University. He interned at the Royal Victoria Hospital, Montreal, and was a resident (1926-1928) at the Herman Knapp Memorial Eye Hospital, New York, under the demanding Arnold →Knapp. He described the Knapp Hospital in the last of some 40 articles he wrote (Surv. Ophthalmol. 19:240, 1975). He spent the last six months of 1928 at Oxford University, where he received the Diploma in Ophthalmology. He earned the Doctor of Medical Science (Ophth.) degree from Columbia University in 1934. Bruce returned to New York from Oxford to become the first geographic ophthalmologist at the newly organized Columbia- Presbyterian Medical Center. In 1979 he was appointed special lecturer and consultant to the Medical Center. He was professor of clinical ophthalmology at the College of Physicians and Surgeons of Columbia University and at the end of his active professional career became professor emeritus. At the time of the attack on Pearl Harbor, Bruce was a Lieutenant Commander in the Naval Reserve. Through his own vigorous efforts he was assigned to the Marine Corps and became a regimental surgeon and then a commander of the medical battalion of the Third Marine Division, which first saw combat at Guadalcanal. He was awarded a Silver Star for gallantry in action. He received a Gold Star in lieu of a second Silver Star while he was commanding officer of the Third Marine Divisional Hospital. He received the rank of Rear Admiral.After World War II, he became a consultant to the Surgeon-General of the Navy and consulting ophthalmologist to the Veterans Administration, the Englewood General Hospital, and the Yonkers General Hospital. He was elected to the American Ophthalmological Society in 1938, and was editor of the Transactions (1950-958), where he provided the first detailed instructions to the authors of theses. He served on the Council of the American Ophthalmological Society, and in 1968 became its president and a member of the Harkness Eye Institute group of past and future Society presidents (A.→Knapp, →Dunnington, →Reese, →Wheeler, →Atkinson, →DeVoe,

→McGuire, →Wadsworth, →Calhoun, →McCulloch, →Guerry, and →Straatsma). In 1973 he received the Howe Medal of the Society. Bruce served as vice-chairman of the Section on Ophthalmology of the American Medical Association, president of the New York Ophthalmological Society, and trustee of the New York Academy of Medicine. He was an honorary member of Alpha Omega Alpha, the honorary medical society.AJO 1992,114:245

Brücke, Ernst Wilhelm von (1819-1892) Austrian professor of physiology at the University of Vienna (1849-1892), whose most important investigations were in physical and physiological optics and color theory. Born in Berlin, he studied medicine there and in Heidelberg (M.D., 1842). In the 1840s he devised techniques that paved the way for Helmholtz's invention of the ophthalmoscope. This technique was published in Arch.Anat.Physiol.wiss.Med., 1845, p.387-406 under the title "*Anatomische Untersuchungen über die sogenannten leuchtenden Augen der Wirbelthieren*". He also authored "*Anatomische Beschreibung des menschlichen Augapfels*". Berlin 1847; "*Untersuchungen über den bau der muskelfasern; mit hülfe des polarisirten lichtes*" Wien 1858; "*Die Physiologie der Farben für die Zwecke der Kunstgewerbe*" Leipzig 1866, which appeared also in a French edition: "*Principes scientifiques des beaux-arts*" Paris 1878.Albert


Ueber
das Leuchten der menschlichen Augen.
Von
Ernst Brücke.
(Vorgetragen in der Gesellschaft der naturforschenden Freunde
am 18ten Februar 1845.)
Als ich vor Kurzem einen Abends in dem Sprechzimmer
der hiesigen Universität zwischen der daselbst befindlichen
Blaglampe und der Thür stand, sah ich die Pupillen eines
jungen Mannes, der eben hinausging, als er sich umwendete,
um die Thür zu schliessen, mit lebhaft rother Farbe leuch-
ten. Es fielen mir zugleich verschiedene Erzählungen von
dem Leuchten der Augen einzelner Personen ein, die ich im-
mer für Fabeln gehalten hatte, indem ich glaubte, dass nur
die Augen leucotischer Menschen in derselben Weise, wie
die der weissen Kaninchen leuchten könnten. Der junge
Mann aber, dessen Augen ich so eben hatte leuchten sehen,
hatte dunkles Haar, und mithin war an Albinismus nicht zu
denken. Ich kam deshalb auf den Gedanken, ob nicht viel-
leicht die Augen aller Menschen unter günstigen Bedingungen
zum Leuchten zu bringen wären. Die Methode, nach der
ich verfahr, um mich hierüber zu belehren, ist ganz dieselbe,
welcher ich mich früher bediente, um das Leuchten der
Katzen- und Hundeaugen zu beobachten, und in diesem Ar-
17

Ernst Brücke´s famous paper, so important to the ophthalmoscope´s history.

Brückner, Arthur Bernard (1877-1975) Swiss ophthalmologist. MD in Würzburg 1901, the same year to Leipzig until middle of 1903 under →E.Hering &→ A. Bielschowski, from 1903 University Clinic under →C.von Hess in Würzburg,1907-20 in Königsberg under→ Krückmann, 1921-22 Chair in Jena, and from 1923-48 in Basle (Switzerland) . Edited with →Schieck: *Kurzes Handbuch der Ophthalmologie(6 vols.).* Editor from 1938 of *Ophthalmologica (Basle).* Countless papers most about physiology of the senses, relationship between human body & the eye, relationship between blood & the eye. **C**olour perception. Kürschners Gelehrten- Kalender 1966,p.280.

Brun, André Félix (1854-1903) French ophthalmologist who co-authored with Victor→Morax (1866-1935) "*Thérapeutique oculaire.*" Paris 1899. Albert

Brunacci, Giovanni (1711-1772?) Italian physician who wrote "*Conforti della medicatura degli occhi*" Padova 1765. Albert

Bruner, Williams Evans (1866-1964) American ophthalmologist, born in Columbia, Pennsylvania. In 1888, he graduated with honors from Wesleyan University, Middletown, Connecticut, where he was elected to Phi Beta Kappa. Bruner received his medical degree from the University of Pennsylvania in 1891 and served as assistant to Dr. George de→Schweinitz until 1893. In addition to work at the Philadelphia General Hospital, he had training at the Philadelphia Polyclinic and at Jefferson Medical College. In January, 1894, Bruner moved to Cleveland where he began the practice of ophthalmology. At Western Reserve University he served as clinical assistant in ophthalmology until 1912 when he became a clinical professor. In 1915, he was appointed professor of ophthalmology and chairman of the department, a position he held until 1936. Bruner carried on a large surgical and consultant practice until his retirement in 1952. He was associated for many years with his nephew, the late Dr. Abraham Bruner, who died in 1957. W. E. Bruner was the author of numerous papers on ophthalmologic subjects. He served as an associate editor of the *American Journal of Ophthalmology* and *Annals of Ophthalmology.* In World War I he held the rank of major in the Medical Corps of the Army and served in the office of the Surgeon General. He had been a member of the American Ophthalmological Society for 57 years, since his election in 1907. In 1913 he was a founder and fellow of The American College of Surgeons and he was an early Member of the American Academy of Ophthalmology and Otolaryngology. Bruner was active in his local medical community, serving as president of the Cleveland Academy of Medicine and president of The Cleveland Medical Library Association.AJO 1965,59:720-721

Brunschwig, Hieronymus (c.1424-c.1534 according to Malgaigne**)**. He studied in Bologna, Padua and in Paris to become a very distinguished surgeon. Brunschwyck is chiefly remembered for the fact that he was probably the very first to use a magnet to remove magneto-attractable foreign bodies from the eye. The passage where he describes this operation is to be found in his "*Dis ist das Buch der Cirurgia Hantwirkckung der wundartzy von Hyeronimo brunschwig* " Strassburg 1497.[GM 5559]. American Encyclopedia of Ophthalmology,vol.2,p.1321-1322.

Brunschwyck Hieronymus *see* **Brunschwig Hieronymus**.

Buchanan, Leslie (1868-1943) Scottish ophthalmologist who received his medical training in Glasgow University, where he graduated M.B., C.M., in 1898. As House Surgeon in the Glasgow Eye Infirmary, from 1891 to 1892, Buchanan decided to devote himself to ophthalmology, and having joined the visiting staff of the Infirmary, he was, in succession, Assistant Surgeon and Surgeon, retiring from the latter post soon after the Great War. For some years he held the post of pathologist to the Eye Infirmary, and in histology and photomicrography he found his chief recreation, inspired, no doubt, by the enthusiasm of his former chief Dr. Thomas Reid. He became a member of the Ophthalmological Society in 1901, and during the succeeding fifteen or sixteen years, made many contributions to the Transactions of the Society, mainly on pathological topics. Of outstanding interest and value were his papers on the histology of uveal disease and on birth injuries of the eye. His work on birth injury of the cornea, in conjunction with Ernest Thomson, established the knowledge of the pathology of this condition. For many years Leslie Buchanan played an important part in the teaching of ophthalmology and many oculists practising in Glasgow and elsewhere, owed their early training, both pathological and clinical, to his encouragement and example. BJO 27,429-430,1943

Bücklers, Max (1895-?) German ophthalmologist. University lecturer in Tübingen 1932, Professor extraordinary 1938, Professor 1939, in Bonn 1951. Albrecht von Graefe prize 1939. Kürschners Gelehrten- Kalender 1966, p.300. He wrote: *Die erblichen Hornhautdystrophien* Stuttgart 1938.JPW

Bucklin, C.A., (?-?) American surgeon at the New York Eye, Ear, and Throat Institute. He wrote:"*The detection and correction of visual imperfections with test-type*". New York 1880. Albert

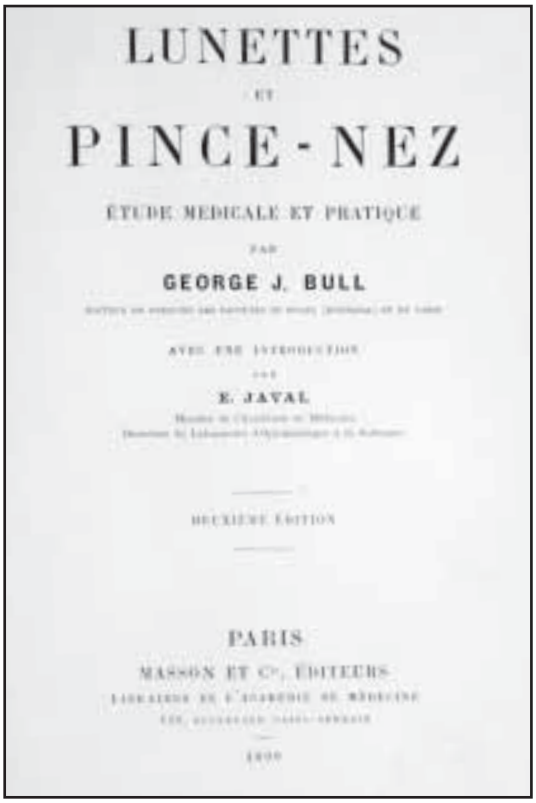
Budge, Julius Ludwig (1811-1888) German neurophysiologist who made important discoveries about the functioning of the sympathetic nervous system. Budge studied in Marburg, Berlin, and Würzburg, and became professor of anatomy and physiology first at Bonn and then Greifswald. He identified the ciliospinal center, now called Budge's center. He wrote:"*Über die Bewegung der Iris*" Braunschweig 1855. Albert.

Goerges Louis Buffon

Buffon, George Louis Leclerc, Comte de (1707-1788) French scientist, born at Montbard. He first studied law at the Jesuit College in Dijon and later devoted himself entirely to science. He was admitted to the Academy and in 1739 appointed director of the *"Jardin du Roi"*. He then had the idea of his famous "*Histoire Naturelle*" in which all the known facts of natural science were to be embodied and discussed. The 44 volumes of his "Histoire Naturelle" appeared between 1749 and 1804. This work brought him an immense reputation and was translated into most of Europe´s languages. He was made *Comte de Buffon* by King Louis XV. He is interesting for ophthalmology , because more than two and a half centuries before he had already tried to explain squint: "*Sur la cause du strabisme ou des yeux louches*"[Memoires de l´Academie, 1743]. (*See*:Frans Cornelis→Donders in his "*Accommodation and Refraction of the Eye"*, p.413). American Encyclopedia of Ophthalmology,vol.2,p.1323-1324. [GM 324].

Bull, Charles Stedman (1844-1911) American, New York ophthalmologist. He received his general and special training at Columbia, where he obtained this Bachelor of Arts in 1864, Master of Arts in 1867 and his medical degree in 1868. The next two years were spent as *interne* at the Bellevue Hospital. He then studied in England, Germany, France and Holland under famous teachers in pathology and ophthalmology: R.Virchow, H.v →Helmholtz, Albrecht von →Graefe, →Jaeger, Louis de→Wecker and Frans Cornelis→Donders. He returned to New York in 1871 and engaged in general practice, but

being unsuccessful he moved to St.Louis in 1872, than returned to New York and started a practice in ophthalmology. He had numerous lectureships, professorships and positions in hospitals and was prominent in medical society. Nearly all the articles he wrote are to be found in the American Journal of Medical Sciences. Together with Dr. D.B. St.John Roosa he translated Carl→Stellwag von Carion´s "*Krankheiten des Auges": Diseases of the Eye.* American Encyclopedia of Ophthalmology,vol.2, p.1329-1330. The Ophthalmoscope, 1911,p.465.


LUNETTES
ET
PINCE-NEZ
ÉTUDE MÉDICALE ET PRATIQUE
PAR
GEORGE J. BULL
AVEC UNE INTRODUCTION
PAR
E. JAVAL
DEUXIÈME ÉDITION
PARIS
MASSON ET Cie, ÉDITEURS

Bull´s book on spectacles with an Introduction by Emile Javal.

Bull, George Joseph (1848-1911) French ophthalmologist of Canadian birth and education. He received his degrees of M.D. and C.M. at McGill University in Montreal in 1869 and was engaged in general practice at Worcester, Mass. He then moved to Denver where he practiced only ophthalmology, shortly after he went to New York and there became connected with the Manhattan Eye and Ear Hospital and the New York Post-Graduate Medical School. He then settled in Paris 1886 where the greater portion of his excellent services to ophthalmology was performed. There he proceeded to take the Parisian Medical Degree and became connected with the Sorbonne and later was associated in practice with the famous Dr.Emile →Javal. He delivered numerous valuable scientific contributions chiefly on refraction, accommodation and strabismus. He wrote: *Lunettes et Pince-Nez* Paris 1899. American Encyclopedia of Ophthalmology, vol.2, p.1336-1337.The Ophthalmoscope,1911,p.158.JPW

Bull, Ole Bornemann (1842-1916) Norwegian ophthalmologist of Christiania, a son or nephew of the famous 19th century concertizing Oslo violonist. Ole Bull also was an artist (painting) and an ophthalmic surgeon especially interested in normal and pathological physiology of the eye. In 1871 and 1872 he held the State Scholarship to study eye diseases of lepers in Bergen. The result was a short but excellent work which he co-authored with Armauer →Hansen (a famous ophthalmologist who was focused on lepra research and who discovered the lepra bacillus by the hydrate of potash method): "*The Leprous Diseases of the Eye*" Christiania 1873, with excellent water-colours from Bull´s hand. >From 1878 to 1881 Bull was first assistant at the University Dermatological Clinic in Christiania. Here he discovered, examining the fundus of all syphilitic patients, the specific neuroretinitis of the early secondary stages of that disease. Bull´s fundamental monograph on that subject "*The Ophthalmoscope and Lues*" Christiania 1884 , would be better known if it had been published in another and bigger country. Another work of importance and also little known is his "*Chromatoptometriske Tabeller*", Christiania 1882 (with text in Norwegian, English, French & German) which was very useful in the diagnosis of central scotoma in tobacco amblyopia and retrobulbar neuritis.All the fifty cartons of his "tables" were painted by himself, the art of reproduction at his time not being able to master this task. He also wrote: "*Perimetrie*", Bonn 1895 , "*Krankheiten der Retinalgefässe*" Leipzig 1903 (with forty-one diagrams and thirty coloured pictures of the fundus). A wealth of observations can also be found in his contribution in Graefe´s *Archiv für Ophthalmologie*, vol.XXVII(1881) "*Studien über Lichtsinn und Farbensinn*". Bull was an excellent water-colourist and sculptor , a skill he loved to use during his holidays. The Ophthalmoscope, 1916, p. 448-450.JPW

Buller, Frank (1844-1905) Canadian ophthalmologist. Graduated in Medicine at Victoria College Coburg. He proceeded to Europe to spend two years in study where he had personal instruction by Hermann von →Helmholtz and Albrecht von →Graefe. In 1872 he left for London, remaining there several years of which two at the Royal London Ophthalmic Hospital where he worked with →Hutchinson, →Critchett,→Hulke, →Lawson and others. Buller returned to Canada in 1876 and was appointed first ophthalmic and aural surgeon to the Montreal General Hospital. He remained there until 1894 and then accepted a similar position in the Royal Victoria Hospital. He was the first Professor of Ophthalmology and Otology in McGill University, a position he held until his death twenty-two years later. Buller wrote about 75 articles. The Ophthalmoscope, London 1906,p.53-54. American Encyclopedia of Ophthalmology,vol.2,p.1330-1336(extensive bibliography!).

Bumstead, Freeman J. (1826-1879). American. Professor of syphililogy at the College of Physicians in New York 1863 -1871; he then undertook two years scientific travelling and was from 1874 at the New York Eye and Ear Infirmary. He was one of the founders of the *American Ophthalmological Society.*

Bunge, Eduard (1903-?) German ophthalmologist. University lecturer at Kiel 1935 and Breslau 1940. Kürschners Gelehrten- Kalender 1966,p.310.

Buonagurelli, Francisco (2nd half of the 18th century) Italian physician who wrote: "*Lettera di Francesco Buonagurelli ... pubblico dimostratore di operazioni chirurgiche alla cura di due piaghe nei sacchi lacrimali*" Firenze 1787. Albert

Burch, George James (1852-1914) British scientist from Oxford. Fellow of the Royal Society. He was professor of physics at University College, Reading, and University Extension Staff Lecturer at Oxford. Burch was known for his research on electricity and light in their relation to physiology and also became an authority on colour-vision. Since the institution of the Diploma of Ophthalmology by the Oxford University, Burch lectured on physiological optics. Several contributions are to be found in *The Ophthalmoscope*. The Ophthalmoscope, London 1914,p.253.

Burchell, Edgar Brower (1872-1960) American scientist, Honorary Member of the American Academy of Ophthalmology and Otolaryngology. With a bare grammar school education, he progressed from a "$17.00 a month" porter at the New York Eye and Ear Infirmary to consultant and teacher of the leading Eye, Ear, Nose and Throat surgeons of the world. In recognition of his phenomenal achievements, he was given the honorary degree of Doctor of Science by Roanoke College in 1934, was made the first Honorary Member of the American Academy of Ophthalmology and Otolaryngology in 1944. Burchell, or "Eddie" as he was known to his close friends, performed many of the tests with the late Dr. John E. Weeks to confirm the cause of "*pink eye*" and finally isolate the Koch-Weeks bacillus. He was a pioneer in the use of snake venom in ophthalmology and collaborated with Noguchi in his trachoma investigations. He assisted the late George Sloan Dixon in the "*Sweet-Dixon*" X-ray localization of foreign bodies of the globe and the production of anatomic stereographs which are to-day unexcelled for teaching and demonstrations. He prepared more than 100,000 stained sections of the human eye during his 60 years of service at the Infirmary and finished more than 500 preparations of the temporal bone and accessory, sinuses. It was from his specimens that the operation for facial palsy was developed in the United States. His proficiency in bacteriology caused John M. Wheeler to invite him as preoperative consultant before the operation for cataract on King Prajadhipok of Siam. He gave courses and lectures in many cities of the United States and foreign countries and frequently accompanied the late Bernard Samuels on his lecture tours. He was one of the original instructors in bacteriology in the graduate course of ophthalmology at New York University Medical School. Born of poor parents on the lower east side of New York, Edgar Burchell was left an orphan at an early age by the death of his father, who was a carpenter. He was forced to stop school and go to work as a jeweler's apprentice to aid his mother in the home. After a few years, he began work as a porter in what was later called the Eno Laboratory of the New York Eye and Ear Infirmary. One of his duties was cleaning test tubes and other laboratory equipment. He developed an interest in the tests and experiments in progress and became an invaluable assistant to Dr. Weeks and others. One of the doctors discarded an old copy of Gray's *Anatomy* and it was from this book that young Burchell gleaned his basic knowledge of the eye and the ear, nose and throat. When the Spanish-American war began, he enlisted as orderly to the late Walter E. Lambert, an ophthalmic chief at the Infirmary. He was in training at Chicamaugua in 1898 and participated in the campaign at Matanzas, Cuba. In 1925, he was given the medal of Meritorious Service, New York's highest award, and a regimental review by the National Guard of New York in the Mall of Central Park. After his return to the Infirmary from Cuba, he became a technician, learned bacteriology and continued his interest in anatomy. Robert G. Reese became interested in his work and sent him to Vienna to learn the techniques used in the laboratories of Salzmann and Fuchs. While in Europe, he investigated and prepared specimens of the eye, the temporal bone and nasal accessory sinuses. With this background, he soon became an authority on these preparations and was also given the title of bacteriologist and serologist at the Infirmary.

He became a teacher of doctors and a consultant to the chiefs of service. He was a great raconteur and invariably spoke at all alumni functions, and was acclaimed at every banquet. AJO 1960

Burchhardt, Max (1831-1897) German physician. He received his MD in Berlin and became a lecturer there. He accepted a similar position in Königsber and returned 1874 to Berlin where he remained until his death, holding simultaneously the position of Chief Physician of the Staff at the Militärturnanstalt, Chief Physician of the First Berliner Garnisons-Hospital and of the Ophthalmic Division of the Charité. He wrote a few articles on ophthalmology and "*The Practical Diagnosis of Simulation*" 1875 , 2nd edition 1878. American Encyclopedia of Ophthalmology,vol.2,p.1340-1341.

Burdon-Cooper, John (1878-1968) British ophthalmologist. John Cooper was born in Washington, Durham, in 1878. After his early schooling in Gateshead, he entered the Durham College of Science in 1893 at the early age of 15 years. Here he took a science degree in chemistry at the age of 18, being awarded the Cochran Medal, and then for a short period worked as a chemist at Middlesbrough before returning to the University as assistant to the Professor of Chemistry, Sir Peter Bedson. This early training and interest in chemistry was a major influence in his subsequent medical work. During this period he was cared for by and owed much to his grandfather, James Burdon, an official of the Washington Chemical Co., a debt which he later recognized by taking the name of Burdon-Cooper. Financed largely by his work in chemistry, he registered as a medical student in 1898 and qualified in 1902, later proceeding to the degree of M.D. and becoming F.R.C.S. (Edin.). A major turning point in his ophthalmological career was reached when he joined Ernest Maddox in Bournemouth in 1903, with whom he worked as assistant for 3 years; in 1904 he married Mrs. Maddox's sister. This friendship and relationship added to the great mutual interests between them. In 1906 he started practice in Bath, which throughout his life remained his professional home; here he was appointed surgeon at the Bath Eye Hospital and added greatly to its reputation. It is interesting that in 1910 he was one of the few (with Ernest Maddox) who took the first D.O. (Oxon.). In Oxford he lectured for 3 years after 1918 on physiological optics, and in 1921 he gave the Doyne Memorial Lecture on the *aetiology of cataract*. Burdon-Cooper made many important contributions to ophthalmology, most of them stimulating and many of them provocative, but he will always be remembered for his work on the biochemistry of the cataractous lens which earned him international fame. He found a considerable number of trace-elements in the normal lens (iron, zinc, copper, manganese, strontium, lead, silver, boron, and silicon), but his main work published between 1914 and 1933 concerned the chemical changes and particularly the deposition of inorganic materials in crystalline or other forms in the cataractous lens. His last paper, written in 1961, and delivered at the 150th anniversary of the founding of the Bath Eye Hospital, is full of delightful anecdotes. BJO 1969,53:143

Burian, Hermann Martin (1906-1974) American ophthalmologist. Burian was born to Austrian parents in Naples, Italy, where his father, a distinguished physiologist, headed a division at the famous Stazione Zoologica. The family moved later to Leipzig and Belgrade where his father held professorships. Burian received his elementary and secondary education in Naples and Leipzig and obtained his medical degree from the University of Belgrade in 1930. Between 1931 and 1936 he worked in the laboratories of such illustrious teachers as →Weigert (Leipzig), →Siegriest and →Goldmann (Berne), and →Tschermak and →Schubert (Prague). He studied photochemistry, visual physiology, and visual optics; it was during these years that his lifelong interest in visual research was kindled. In 1936 he accepted an invitation to join Alfred→Bielschowsky at the Dartmouth Eye Institute. It was the influence of this great master, who soon became Burian's mentor, and the daily contact with such outstanding co-workers as Ames, Lancaster, Linksz, Boeder, Ogle, and Herzau that influenced Burian's scientific career. Upon Bielschowsky's death, Dr. Burian became his scientific heir, continued and greatly expanded his work, and became head of the Dartmouth Eye Institute. He left Dartmouth in 1945 and was in private practice in Boston until 1951 when he joined the faculty of the Department of Ophthalmology at the State University of Iowa as an associate professor. In 1956 he became professor and remained in this position until his retirement. It was at Iowa that Dr.

Burian spent the most productive period of his life, published more than 150 papers, attracted patients and students from all over the world, and made lasting contributions to the field of strabismus, electrophysiology, developmental anatomy, and congenital glaucoma. Together with Lee Allen, he pioneered the trabeculotomy ab externo, an operation now widely performed for congenital glaucoma. In 1971 he left Iowa as professor emeritus and found a new home in North Carolina where he was appointed professor at the University of North Carolina and clinical professor at Duke University. He presented many named lectures, among these the Proctor, Cavara, Gifford, Weeks, and Scobee Memorial Lectures. He received an honorable Doctor of Science degree from Colby College, was co-recipient of the Hectoen Gold Medal, and was on the editorial board of six scientific journals. He served for 22 years on the American Orthoptic Council where he did much to further the cause of American orthoptics. He was president of the International Strabismological Association and secretary and, later, vice-president of the International Society of Clinical Electroretinography. He held many other important positions in American and international ophthalmology. Upon his retirement from Iowa, Documenta Ophthalmologica published a *Festschrift* in his honor containing contributions from friends and former disciples from all over the world. Of the numerous national and international scientific organizations to which Dr. Burian belonged, were the American Ophthalmological Society and that small, intimate circle of devotees known as the "Squint Club." AJO 1975,79:335

Burke, John W. (1885-1959) American ophthalmologist. He was born in Alexandria, Virginia, and died in Washington, D.C. Burke did his premedical work at the University of Virginia and was graduated from the University of Virginia Medical School in 1906. He interned at the University of Virginia Hospital, the Episcopal Eye, Ear and Throat Hospital, and the New York Eye and Ear Infirmary. He then did postgraduate work in Vienna and London. In 1910, he returned to his country to private practice of ophthalmology as an associate of the William Holland→Wilmer. In 1917, he was commissioned a first lieutenant in the Medical Corps, United States Army, and served in France until he was released in 1919 as a Major. He returned to the United States on a Navy ship, as one of the personal physicians of President Woodrow Wilson. He was an associate professor of ophthalmology at Georgetown University Hospital and later professor. He was a member of the American Ophthalmological Society. He had been a member of the council and was president in 1947. He also was a member of the American Medical Association and of the District of Columbia Medical Society. He was not a prolific writer but his greatest contributions were in doing the *first* total corneal transplant and in pointing out that there could be progressive field loss in advanced glaucoma with controlled tension. AJO 1959,48:863

Bürki, Ernst (1909-?) Swiss professor of ophthalmology in Basle. Alfred Vogt Prize 1948. He wrote:"*Das Haftglas als opt.Instrument "* 1948.(The contact lens as an optical Instrument). About 40 articles mainly in *Ophthalmologica* (Basle) since 1940. Kürschners Gelehrten- Kalender 1966,p.305.

Burnett, James Compton. Nothing could be found about the author of "*Curability of cataract with medicines*". London 1880.

Burnett, Swan Moses (1847-1906) American ophthalmologist born at New Market, Jefferson County, Tennessee. Burnett received his medical education at the Miami Medical College in Cincinnati 1866-67 and at the Bellevue Medical College 1869-70 where he obtained his medical degree. >From 1870 to 1875 he was engaged in general practice in Knoxville, Tennessee. While a student at Bellevue he had paid especial attention to ophthalmology and otology, and, in 1875-76 he proceeded to Paris and London for the purpose of further study of these , his favorite, branches. Returning to America in 1876 , he settled in Washington, D.C., devoting himself entirely to ophthalmology and otology. In 1878 he became lecturer of ophthalmology at the school of medicine of Georgetown University. He held this position until 1883, the year he was offered a clinical professorship of the same subjects at the same school. In 1889 he was named professor for ophthalmology and otology at the same place and retained this position until his death. He was one of the attending staff [and president] of the Dispensary and Emergency Hospital. In this institution he founded and equipped the "Lionel Laboratory" in memory of one of

his sons. He also was ophthalmologist and otologist to the Children's and Providence Hospital and member of the consulting staff of the Episcopal Eye, Ear, and Throat Hospital. In 1889 he was elected president of the Medical Society of the District of Columbia, in 1890 he received the honorary degree of doctor of philosophy from the Georgetown University. He translated: E.→Landolt "*Manual of Examination of the Eyes*" and wrote: "*A course of Lectures Delivered at the Ecole Pratique"*, Philadelphia 1879; "*A Theoretical and Practical Treatise on Astigmatism*", St Louis 1887; "*The Principles of Refraction in the Human Eye Based on the Laws of Conjugate Foci*" Philadelphia 1904; "*Study of Refraction from a New Viewpoint*" Philadelphia 1905. His contributions are to be found in *Archives of Ophthalmology and Otology* between 1876 and 1884, in *American Journal of Medical Sciences* 1884, *Transactions of the American Ophthalmological Society* 1888-93, *American Journal of Ophthalmology* 1896 and *Ophthalmic Record* 1899. American Encyclopedia of Ophthalmology, Vol.2,p.1342-1345

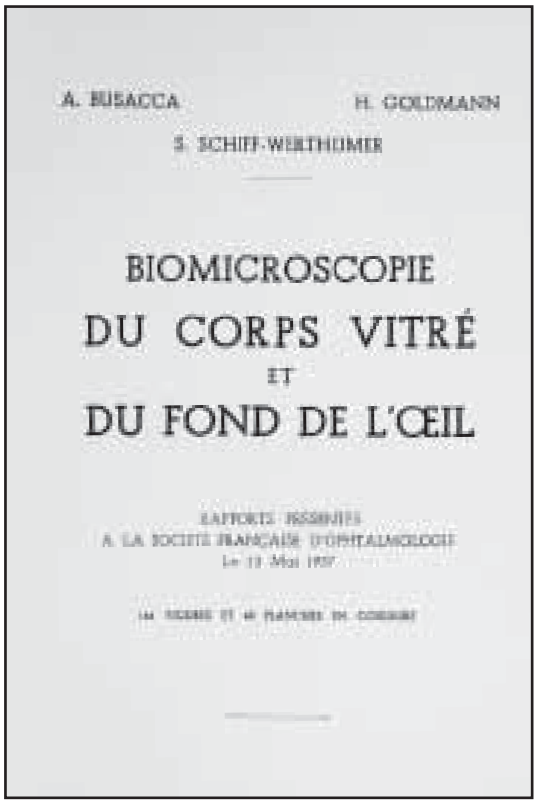
Burns, David Malcolm Joseph (1927-1994). British ophthalmologist. David Malcolm Joseph Burns was born on 2 November 1927 in Gosforth, Newcastle upon Tyne. His father, David, was Professor of Physiology at Durham University and his mother, Clarice Margaret Dugdale, was a biochemist. He attended Newcastle Grammar School and studied medicine at Trinity College, Cambridge, and Newcastle Medical School. For his National Service he served with the British Commonwealth Overseas Forces with the rank of captain and was mostly in Japan and Korea. He was involved in the treatment of victims of the atomic bomb attack on Hiroshima. He qualified in 1952, becoming house physician at the Royal Victoria Hospital, Newcastle. Specializing in ophthalmology, he trained at Moorfields and the Bristol Eye Hospital and was appointed senior registrar to the Oxford Eye Hospital. He was appointed consultant eye surgeon to St Paul's Hospital and Broadgreen Hospital, Liverpool, as well as lecturer in ophthalmology to Liverpool University. He received the Moorfields Prize in 1961 and became President of the North of England Ophthalmological Society in 1989. He was especially interested in diabetic retinopathy. Burns earned following titles: MRCS 1952; FRCS 1962; MB BCh Cantab 1952; MA 1955; LRCP 1952. The Times 10 April 1994; LFRCSE

Burns, Robert P. (1923-1996) American ophthalmologist of Sonoma, California. Burns was born in Portland, Ore, grew up near a logging camp, and attended the University of Portland on a scholarship. He joined the Army during World War II and entered the wartime accelerated medical program, graduating in 1947 at the top of his class. He practiced general medicine in the seaside logging town of Waldport, Oregon, where his interest in the surgical repair of loggers' injuries led him to pursue ophthalmology after serving as a flight surgeon during the Korean War. Burns took his ophthalmology residency at Columbia University, New York, and later joined the faculty. In 1957, he joined the University of Oregon Medical School faculty and taught for more than 20 years. He served as Professor and Chairman of Ophthalmology at the University of Missouri-Columbia from 1979 until his retirement in 1991. Through his leadership, the Mason Eye Institute was built, providing new clinical and research facilities. Burns was an examiner for the American Board of Ophthalmology for more than a decade and served a term as its president. He was elected into several professional and research societies, including the American Ophthalmological Society, and published over 80 research articles. He was the *first* to isolate the cytomegalovirus from the eye in tissue culture in 1959. He did extensive research in ocular malignant melanoma in Sinclair swine. He was also involved with the pharmacology and pharmacodynamics of a variety of keratopathies and external diseases. The Mason Eye Institute established the Robert P. Burns, MD, and Lynette Feeney-Burns, PhD, endowment for Education and Research. Arch Ophthalmol 1996,114:779

Burow, Karl Heinrich August (1809-1874) German ophthalmologist of Königsberg. He devised a blepharoplasty procedure and an operation for entropion, among many other surgical innovations. Burow wrote: "*Beiträge zur Physiologie und Physik des menschlichen Auges*." Berlin 1841; "*Ueber die Reihenfolge der Brillen-Brennweiten; eine Gratulationssehrift Carl Ernst von Baer*" Berlin 1864. Albert

Burr, William Simpson (1899-1957) Scottish ophthalmologist, born in Bo'ness, West Lothian. Burr studied medicine at Edinburgh University, whence he graduated M.B., Ch.B.

in 1921; in 1925 he obtained the D.O.M.S., and he was elected F.R.C.S. Ed. in 1927. During this period he held appointments at Bury Infirmary and Derbyshire Royal Infirmary, and latterly became senior house-surgeon at Moorfields Hospital. In 1927 he settled in Plymouth where he was honorary ophthalmic surgeon to the Royal Eye Infirmary. In 1954 he relinquished this post but continued as honorary consultant surgeon. BJO 1958,42:64


A. BUSACCA H. GOLDMANN
S. SCHIFF-WERTHEIMER
BIOMICROSCOPIE
DU CORPS VITRÉ
ET
DU FOND DE L'ŒIL

Busacca, Archimede (? – 1971) Brazilian ophthalmologist of San Paulo. He is the author of *Biomicroscopy and Histology of the Eye*,(3 vols.) and *Biomicroscopie du Corps Vitré et du Fond de l'Oeil* (Paris 1957) with H.→Goldmann and S. Schiff-Wertheimer. In 1932 he described the nodule that bear his name which occur on the mesodermal surface of the iris in uveitis. AJO 1971,72:215. JPW

Busch, Johann Georg (1728-1800) German scientist, professor of mathematics at Hamburg, who wrote: "*Tractatus duo optici argumenti*." Hamburg 1783. Albert

Businelli, Francesco (1828-1907) Italian ophthalmologist. Businelli first studied at Padua, then in Vienna where the powerful influence of E.→Jaeger and F.→Arlt directed his attention to ophthalmology. He became 1854 assistant to the Eye Clinic in Vienna. He returned to his country to become 1861 Professor of Ophthalmology at Sassari, and 1872 at Modena. American Encyclopedia of Ophthalmology, Vol.2,p.1347.

Butler, Thomas Harrison (1871-1945) British ophthalmologist. The son of a clergyman, he was born in 1871. His early education was received at Dorchester Grammar School and St. Paul's School. Proceeding to Corpus Christi College, Oxford, he obtained first class honours in Natural Sciences. His clinical course was taken at St.Bartholomew's Hospital and from there he qualified B.M. in 1895. After holding a number of resident hospital appointments, a Radcliffe Travelling Fellowship enabled him to widen his experience by study on the Continent for several years-during which time he worked at Paris, Berlin and Vienna and other centers. Later he practised for several years in South Africa and on returning to his country he obtained the doctorate of medicine in 1902. For 4 years he was Assistant Surgeon to the British Ophthalmic Hospital at Jerusalem where he gained valuable experience in eye diseases which laid the foundation of his future career. On his return to England, he commenced practice as an ophthalmologist at Leamington and Coventry, and became Honorary Ophthalmic Surgeon to the Coventry and Warwickshire Hospital and to the Warneford Hospital, Leamington. In 1913 he was appointed a member of the honorary staff of the Birmingham and Midland Eye Hospital. Retiring from this position in 1932 he returned to assist the depleted staff when his son who was Assistant Surgeon to the Hospital was called to the Forces at the outbreak of war. He wrote much and was a frequent contributor to Medical Journals. An authority on the slit-lamp, his book (to which Ida Mann colaborated): "*An Illustrated Guide to the Slit-lamp*,"(Oxford 1927) was the *first* printed in English on this subject. All the illustrations in this book were from his own drawings. He was a familiar figure at most of the society meetings and during his long career he came to hold with distinction many high offices. At different times he was President of the Ophthalmological Society of the United Kingdom, of the Ophthalmic Section of the British Medical Association and of the Midland Ophthalmological Society. The last named society was especially indebted to him, for not only was he president for three years but was honorary secretary for nearly 30 years. For many years he was a member of the Council of the Oxford Ophthalmological Congress and contributed much to its success. He delivered the Doyne Memorial lecture and received the Doyne medal in 1924 and was Middlemoore lecturer in 1915, 1922 and 1930. As evidence of his outstanding merit and of the esteem in which he was held by his colleagues, he was elected an Honorary Fellow of the Royal College of Surgeons in 1941-a rare but well deserved. BJO 1945,29:217-219; Lancet 1945,1:194; Brit med J. 1945,1:202

Butter, William (1726-1805) Scottish surgeon. He received his M.D. at the University of Edinburgh (1761) and practiced surgery in Derby and London. In ophthalmology he

wrote: "*An improved method of opening the temporal artery. Also, a new proposal for extracting the cataract*" London 1783. Albert

Buxton, Jorge N. (1921-1999) American corneal surgeon. Dr Buxton was born in Buenos Aires, Argentina. He graduated from Champagnat, St George's College, and the National University of Buenos Aires Medical School and completed his internship at Ramos Mejia Hospital. He emigrated to New York, NY, with his wife Amalia in 1947 and served an internship at St Clare's Hospital. He completed the basic science course in ophthalmology at New York University Medical School and took his residency in ophthalmology at Newark Eye and Ear Infirmary and New York Eye and Ear Infirmary. Buxton was an associate of Conrad→Berens, Britain F. Payne and Ramon→Castroviejo, from 1955 to 1957. He served in the US Air Force in Wiesbaden, Germany, attaining the rank of major. After his military services were completed, Buxton returned to New York, NY, and established his practice at the New York Eye and Ear Infirmary. In 1963, he was appointed surgeon-director and director of the corneal service. Later he became executive surgeon and chair of the medical board. During his career, Buxton served as clinical professor of ophthalmology at the University of Medicine and Dentistry of New Jersey, the State University of New York at Stony Brook, and the New York Medical College. He was a consultant in ophthalmology to numerous hospitals in New York, and to the US Food and Drug Administration. In addition, he was a director of eye banks in New York, New Jersey, Buenos Aires, and Tissue Banks International. Buxton received numerous awards, including the Honor and Senior Honor Awards from the American Academy of Ophthalmology, an award from the Order of St John, and a citation by the US Food and Drug Administration, as well as being named a distinguished alumnus of New York Eye and Ear Infirmary. He also gave several named lectures, including the Kevin Touhy Lecture (1975), the Arturo Grullon Memorial Lecture (1976), the Sylvio de Abreu Fialho Memorial Lecture (1978), and the 11th Conrad Berens Lecture (1979). Arch Ophthal 118,301,2000

Buxtorf, Johannes Swiss scientist, professor of Hebrew at the University of Basel. He wrote: "*De visu*" Basle 1728. A brief account of the structure of the eye and the mechanisms of vision. (Albert)

Buys, P. -J. (?- ?) Belgian physician who wrote "*De l'emploi de l'acétate de plomb solide dans le traitement de l'ophthalmie granuleuse*" Brussels 1849. Albert

Buzzi, Francesco (1751-1805) Italian ophthalmologist and surgeon of Milan, who worked at the Spedale Maggiori, and who was the first to describe the macula lutea of the human retina (1782) published in "*Opusc.scelti sulle science e sulle artidi*, Milano 1782, 5, 94 and the first to create a new pupil by iridodialysis (1788). Hirsch, Albert

Byers, W.Gordon M. (1872-1957) Canadian ophthalmologist from Quebec, Canada. Byers was born in Gananoque, Ontario. He was graduated in medicine from McGill in 1894 with first class honors. During the next two years he interned in medicine and surgery at the Montreal General Hospital. Then he studied in Edinburgh, obtaining the L.C.P. and S. Following this, he served for 18 months as house surgeon at the Royal London Ophthalmic Hospital and later he studied for a year in Berlin, Paris, Vienna, and Utrecht. Byers was always an assiduous student. His enthusiasm carried him into many new fields in ophthalmology. As a result of his postgraduate studies and scientific contributions he earned a D.Sc. from McGill University in 1909. This degree was the highest scientific accolade at that university. On his return from Europe in 1898, he joined the staff of the Royal Victoria Hospital, Montreal, and a year later that of McGill in the Department of Ophthalmology. He became ophthalmologist-in-chief of the first in 1921, and professor and chairman of the department of the latter in 1923. On reaching the respective retirement ages at each institution, he forsook the appointment of the first in 1935 and the latter in 1937. He carried on private practice for a few years until 1946, when he retired. In the light of his character, training, and aims, it is not surprising that Dr. Byers took an active part in several ophthalmic societies. In 1920, he actively inspired the founding of the Montreal Ophthalmological Society. He was its first president. This society, embracing both the English- and French-speaking ophthalmologists of Montreal, has taken a very active part in the clinical life of the city ever since. Again in 1937, he was largely responsible for the founding of the Canadian Ophthalmological Society, which

since has developed into the most important clinical, scientific, and even political group of ophthalmologists in Canada, and he was its first president. Byers also was an active member of the American Ophthalmological Society from his election in 1906, and was its president in 1934. He was also a member of the Ophthalmological Society of the United Kingdom from 1897 on. AJO 1957,44:840-841;BJO 1958,42:193

C

Cabrol, Barthélemy (16th century) French Anatomist born at Jaillac, diocese of Albi, who studied and practiced in Montpellier. Cabrol´s renown in ophthalmology is due to him establishing that the optic nerves do not arise from the anterior, but from the posterior, portion of the brain. American Encyclopedia of Ophthalmology, Vol.2,p.1350.

Cadiat, Oscar (1844-?) French physician who authored "*Du cristallin; anatomie et développement; usages et régénération*" Paris Baillière, 1876. Albert

Caffe, Paul Louis Balthazar (1803-1876) French ophthalmologist born at Chambéry, France. Caffe received his M.D. at Paris in 1833. He was a disciple of Sanson, and choose ophthalmology as his specialty; He wrote an important treatise on ophthalmia among Belgian, Dutch and Prussian soldiers and its treatment:"*Ophthalmie des armées*" Paris 1840. Albert

Cairns, John Edward (1925-1986) British ophthalmologist , studied at Durham University, was called up 1943 to join the Indian Army in which he remained until 1947 to enter the St.Bartholomews´s Hospital Medical School. He took the anatomy prize in the second MB and after qualification was house officer on both professorial units. It was then that Henry →Stallard interested him in eye surgery, and after working with Stallard subsequently completed his eye training at Moorfields Eye Hospital, London. After a time he was appointed to Addenbrooke´s Hospital, Cambridge in 1964. Cairns focusing on Glaucoma, published a two-volumes work on that theme in 1986-87. He also edited a book on the *Symposium on Glaucoma*-Transactions of the New Orleans Academy of Ophthalmology. St.Louis 1981.BJO 1986; 70:479.

Caldani, Leopoldo Marco Antonio (1725-1813) Italian anatomist and physiologist. In ophthalmology, he "*Intormo ai movimenti dell'iride dell'occhio*" Verona 1808. Albert

Calder, Francis William Grant.(?-?) British ophthalmologist who wrote "*Practical hints on the cure of squinting by operation*." London 1841. Albert

Calderini, Giovanni (1841-1920) Italian physician mainly interested in ophthalmology, obstetrics and gynecology. He studied medicine in Turin, and from 1873 was professor of obstetrics and director of the obstetrical hospital at the University of Parma. In ophthalmology he wrote: "*Enucleazione del bulbo dell'occhio*" Torino 1866. Albert

Calhoun, Ferdinand Phinizy (1879-1965) American ophthalmologist. He was born in Atlanta, the son of Dr. Abner Welborn→Calhoun and Mary Louise Phinizy Calhoun, both members of pioneer Georgia families. Abner W. Calhoun was the pioneer ophthalmologist of this part of the country and was chairman of the Section on Ophthalmology of the AMA in 1882. The father of Dr. Abner W. Calhoun was a physician in Newnan, Georgia. After attending the public schools of Atlanta, F. Phinizy Calhoun was graduated from the University of Georgia in 1900. He attended Harvard for one year, and then entered the School of Medicine of Emory University (at that time the Atlanta College of Physicians and Surgeons), graduating in 1904. He interned at Grady Memorial Hospital in Atlanta, and did his residency training in ophthalmology at the New York Eye and Ear Infirmary and followed this with postgraduate study in Vienna. On his return to Atlanta, he was associated with his father in the practice of ophthalmology. On his father's death in 1910, he succeeded him as head of the Department of Ophthalmology at the Medical School and as chief of the *Ophthalmology Service* at Grady Hospital and Wesley Memorial Hospital (now Emory University Hospital). He was also well known for his contributions to education at both the University of Georgia and Emory University. He was a former president of the National Alumni Association of the University of Georgia. He served as

chairman of the Board of Trustees of the University of Georgia Foundation. He established a lectureship at the University of Georgia in memory of his grandfather, Ferdinand Phinizy. He also established a lectureship at the annual meeting of the Medical Association of Georgia in memory of his father, Dr.Abner Welborn Calhoun. In 1937, he received the first Alumni Award from the Alumni Association of the University of Georgia. In 1937, he retired as professor and chairman of the Department of Ophthalmology of Emory University and was succeeded by the late Dr. Grady→Clay. Dr. Calhoun's son, F. Phinizy→Calhoun, Jr., was professor and chairman as from 1949. Dr. Calhoun, Sr., at the time of his death, had been a member of the Board of Trustees of Emory University for 24 years, and was a member of its Executive Committee. He was also a trustee of the Joseph Brown Whitehead Foundation. With older members of his family, he established and endowed the Medical Library in the School of Medicine of Emory University as a memorial to his father, Dr. Abner W. Calhoun. In 1954, Emory University granted him the honorary degree of Doctor of Laws. Calhoun was the unusual combination of good physician-good business man. For many years he was a director and member of the local advisory board of the Citizens and Southern National Bank. He was deacon emeritus of the First Presbyterian Church. He was a member of the Piedmont Driving Club, the Capital City Club, the Chi Phi fraternity, the Phi Chi Medical fraternity, and the honorary societies Phi Beta Kappa, Alpha Omega Alpha, and Omicron Delta Kappa. During World War I, he served in the Army Medical Corps with the rank of major. He was a member of the local state and national medical societies. In 1917, he was vice-chairman of the Section of Ophthalmology of the AMA. He was a member of the American Board of Ophthalmology, 1924-1933. In 1941, he was president of the American Ophthalmological Society and also vice-president of the American College of Surgeons. He was particularly adept at recognizing eye manifestations of systemic diseases. Among his 55 published articles in ophthalmologic literature were original investigations on heterochromia iridis and angioid streaks. He also published a book on the Phinizy family and a history of the Atlanta Medical College. He was a conservative surgeon, who kept to the techniques which his generation had found good.In 1960, an anonymous friend endowed and established the Ferdinand Phinizy Calhoun Chair of Ophthalmology in his honor at Emory. AJO 1965,60:1136-1138

Calhoun, Abner W. (1846-1910) American ophthalmologist born at Newnan, Georgia. Calhoun first studied medicine with his father, who was a well known Southern practicioner to proceed to the Jefferson Medical College at Philadelphia, where he received his medical degree in 1869, standing at the head of his class. He then went to the old continent where he worked under Albrecht von →Graefe in Berlin and under the famous otologist Politzer in Vienna. Returning to America in 1873, he settled as ophthalmologist and otologist in Atlanta. He soon became Professor of Ophthalmology in the Atlanta Medical College, a position he held for nearly forty years. American Encyclopedia of Ophthalmology, Vol.2,p.1357-1359.

Calhoun, Jr., F. Phinizy (1910-1995) American. Calhoun was a fourth-generation Atlanta physician. His great-grandfather, A.B.Calhoun, helped found the Atlanta Medical College in 1854, one of the antecedent institutions that later combined to form Emory University School of Medicine. His grandfather, Abner W.→Calhoun, was the South's first specialist in diseases of the eye and ear. His father, F. Phinizy→Calhoun, Sr., who was also a distinguished physician, was chairman of ophthalmology at Emory School of Medicine from 1910 to 1937. All four Calhouns thus served either on the Emory faculty or one of its forerunner schools. Calhoun graduated from the University of Georgia in 1932, received his medical degree from Johns Hopkins University School of Medicine in 1936, and did his postgraduate training at the Eye Institute of Columbia -Presbyterian Hospital in New York. He was a major in the United States Army Medical Corps during World War II, serving in the Army's 2nd General Hospital in England and France. He joined the medical faculty at Emory in 1941, where he helped to train more than 100 ophthalmology residents. Under his direction, ophthalmology at Emory was established as a separate department in the medical school, and he served as its chairman from 1950 to 1978. During his professional career he maintained a very active clinical practice with particular interest in the diagnosis and management of epithelial downgrowth into the anterior

chamber and the management of dislocated lenses. Calhoun also directed the L. F. Montgomery Ophthalmic Pathology Laboratory at Emory and continued his involvement with ophthalmic pathology in this laboratory until his death.In 1955, Calhoun established the Georgia chapter of the Society to Prevent Blindness and was responsible for the first preschool vision and glaucoma screenings in the state of Georgia. During his career, he also established the Georgia Society of Ophthalmic Research and served as president of both the American Ophthalmological Society and Georgia Ophthalmological Society. He retired from academic responsibilities at Emory in 1979 and was named an emeritus professor. An endowed professorship was created in the Department of Ophthalmology at Emory University in his honor in 1991. He retired from practice at the age of 8l years. AJO 1995,120:567-568

Callan, Lewis White (1877-1920) American New York Ophthalmologist born in New York City . He went to Yale College, but did not graduate. His M.D. was received at the University of Pennsylvania in 1901. Having studied ophthalmology at the New York Eye and Ear Infirmary till 1902, he practised as ophthalmologist in New York City from that time till his death. He was, for a number of years, ophthalmic surgeon to the New York Eye and Ear Infirmary, St. Bartholomew´s and Lying-In Hospitals. He was a Fellow of the New York Academy of Medicine, a member of the American Ophthalmological Society. AJO 1920,3:631

Callender, George R. (1884-1973) American ophthalmic pathologist, Brigadier General at the Armed Forces, founder of the Army Medical Museum and an active laboratory for ophthalmic and otolaryngologic pathology. George Callender was born in Everett, Massachusetts, and he obtained his M.D. degree from Tufts Medical College in 1908. After three years as instructor in pathology at Tufts, he accepted a commission in the Army in 1913 and served continuously on active duty until his retirement in 1946. Then, after the end of World War II, he became Director of Pathology and Allied Sciences for the Veterans Administration, a position he held until 1961. Callender was the first military officer who was a qualified pathologist to serve as Curator of the Army Medical Museum, and it was under his administration that the Museum changed from what had once been called "a pickle factory" into a dynamic center of pathology. It was while he was Curator in 1921 that Dr. Harry→Gradle came to him with his idea to establish a central laboratory for ophthalmic pathology, national in scope, at the Army Medical Museum. Callender, who at that time knew little about pathology of the eye, realized that this was a great opportunity for the Museum to fill a void and to initiate an effort to establish a center for ophthalmic and otolaryngologic pathology in Washington. Later he conceived the plan to develop Registries in various special fields, comparable to the Bone Sarcoma Registry that E.A.Codman had established a few years earlier in Boston. Thus, the Registry of Ophthalmic Pathology is generally conceded to have been the world's second specialized Registry of Pathology. Subsequently, other Registries were established at the Museum, which in time was renamed the Army Institute of Pathology, and then the Armed Forces Institute of Pathology. While Callender, in the beginning, knew almost nothing about ophthalmic pathology, he learned quickly, mainly from consultation and guidance by →Verhoeff in Boston and from his own initiative and personal experience gained by the steadily increasing number of cases contributed during the 20s and early 30s. Thus, by 1931 Callender had already studied and reported on 111 malignant melanomas of the uvea, which he was able to classify cytologically and histologically into six types that seemed to carry definite prognostic significance. This was the first important paper to be based on material contributed to the museum's ophthalmic pathology laboratory, and to Callender's lasting credit his classification has stood the test of time. He recruited Helenor Campbell, a technician in the Department of Pathology at Johns Hopkins. She, as we know, became one of the nation's great ophthalmic pathology technicians and subsequently the renowned ophthalmic pathologist, Helenor C. Wilder and Helenor C. Foerster. Two especially outstanding Army pathologists who came under Callender's influence were James E. Ash, who wrote many papers dealing with ocular and otolaryngologic pathology, and Elbert DeCoursey, who in collaboration with Ash and Wilder prepared the first three editions of the old *Atlas of Ophthalmic Pathology*. While Callender is best remembered by ophthalmologists for having established the Registry of Ophthalmic Pathology and for his

classification of uveal melanomas, his scientific and administrative contributions were much more encompassing. He was a pioneer in the experimental pathology of wound ballistics. Having established the Lymphatic Tumour Registry in 1925, he developed a special interest in malignant lvmphomas, and in 1934 made an important advance with his classification of lymphatic tumors. He had broad interests in infectious diseases and made significant contributions based on his studies of influenza during World War I and various tropical diseases studied in Washington, Panama, and the Philippines. He served as President of the Army Medical Research Board in Manila and as Commandant of the Army Medical Service Graduate School. Among the many honors he received, some of the most prestigious were the Sternberg Medal (1913), the Typhus Commission Medal (1945), the Distinguished Service Medal (1945), the Strong Medal (1946), and the Médaille de la Reconnaissance Française (1947). It is safe to say that no one did more to elevate military pathology to the enviable status it enjoyed during the period between the two great wars and to prepare the Army Medical Museum and the Army Medical Service Graduate School for the outstanding jobs they were destined to perform during World War II. AJO 1973,76:601-602

Cambie, Eric (1940-) Belgian ophthalmologist. Cambie was born in Ghent. During his medical studies in his home town he got a degree in physical development, and was a student assistent in the department of human cytology and histology. He obtained his M.D. degree in 1966. He performed his ophthalmological training in the department of Jules Francois, where he was a senior assistant. In between he got a one year fellowship at Tulane Medical University in New Orleans, where he became a clinical professor. He obtained a fellowship in laser surgery at Stanford University in Palo Alto. While on sabbatical leave he lectured and visited the main departments in his field of interests (John Hopkins in Baltimore, Harvard Medical School in Boston, Bascom Palmer in Miami, Columbia University in New York). He introduced laser surgery in Europe in 1971 and wrote more than 70 papers, a.o. on *collagenolysis* and *collagenase inhibition in the cornea*. In 1980 he left the University and started private practice. He set up an ophthalmological department first in Zottegem and afterwards in Ghent similar to a University Clinic. Furthermore, he is doing research work with Virgilio →Victoria-Troncoso in his laboratory on Nd-Yag lasers and radial keratotomy. He is much indebted to his wife Christiane De Bleecker, who did a fellowship on strabismus in Smith-Kettlewell with A. Jampolski in San Francisco. She took over the ophthalmological department he had started to build up in Zottegem. Eric Cambie organised two international meetings and several local meetings in his clinic. (Verriest)

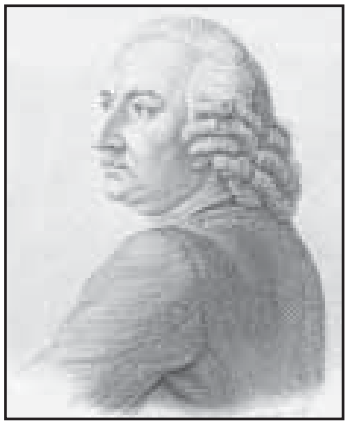
Camerarius, Alexander (1695-1736), German physician and professor of botany at the University of Tübingen.He made the first description of irritability in plants and one of the earliest descriptions of the venereal ophthalmias:″*Dissertatio inauguralis medico-chirurgica sistens ophthalmiam venereamet peculiarem in illa operationem*″ Tübingen 1734. Albert

Campbell, Dorothy Rose née **Adams (1902-1982)** British ophthalmologist. Dorothy Rose Adams was born in St Albans, Herts, on 12 April 1902, the first child of Harry Adams a contractor, and Miriam, n& Rose. She was educated at Claire House School, St Albans, and North London Collegiate School and gained an entrance exhibition to Girton College, Cambridge, in 1920. Dorothy Campbell had a brilliant university career, gaining first class honours in natural sciences as well as numerous medals and the Scientific and Industrial Research Studentship for research on Metabolism of the crystalline lens for the Glass Blowers' Cataract Committee of the Royal Society. Her clinical studies were carried out at University College, London, followed by a clinical assistantship at the Royal London Ophthalmic Hospital in 1927; house surgeon, Central London Ophthalmic Hospital, 1930-1931; ophthalmic surgeon, Hospital of St Cross, Rugby, 1931-1937 and she became assistant surgeon Birmingham and Midland Eye Hospital, 1934-1940. Mrs Campbell was an ophthalmic surgeon in the EMS for Coventry, Warwick, Leamington and Nuneaton, from 1939 to 1944 and was ophthalmic surgeon at the Coventry and Warwickshire Hospital from 1937 to 1962. There were few ophthalmic committees, councils or associations with which Dorothy Campbell was not associated. She examined for the DOMS, was a member,

treasurer, vice-president or president of many societies and congresses, including the Ophthalmic Section of the Royal Society of Medicine, the Ministry of Health and the Royal National Institute for the Blind. She lectured in many universities and hospitals from 1944 to 1964; her researches into the causes of blindness were carried out under the MRC (1927-1930); the Ross Foundation, Edinburgh; and Birmingham and Midland Eye Hospital between 1945 and 1965. She received following titles:FRCS by election 1954; BA Cambridge 1923; MB,BS London 1926; DOMS 1930. LFRCSE

Campbell, Ernest Kenneth (1861-1943) British ophthalmologist, born the ninth son of Hugh Campbell, M.R.C.S. 1845, M.D. St Andrews 1863, of 23 Wimpole Street and of Hampstead and Margaretting, Essex, and Henrietta Johnston, his wife. He was educated at University College School, London, and at Edinburgh University, where he graduated M.B. in 1884. He received his O.B.E. 1932; M.R.C.S. 21 July 1884; F.R.C.S. 9 December 1886 and his M.B. in Edinburgh 1884. He also studied medicine at St Bartholomew´s Hospital, London, and in Dublin and Paris. He served as clinical assistant at the Royal London (Moorfields) and Royal Westminster Ophthalmic Hospitals, and at the Golden Square Throat Hospital. Campbell practised as an ophthalmologist in London and was appointed assistant surgeon, eventually becoming consulting surgeon, to the Western Ophthalmic Hospital, Marylebone Road. He joined the R.A.M.C. on the outbreak of the first world war, was gazetted captain on 25 July 1917 and subsequently promoted major. As an army ophthalmic specialist he served for eighteen years, and was awarded the O.B.E. in 1932 for this service. A selection of his publications is: *Advancement and tenotomy in cases of squint*. Lancet, 1912, 2:366; *Hysterical amblyopia*. Brit. med. J. 1915, 2:434. LFRCS 1930-1951,129

Campbell, John Franklin (1864-1920) of Chicago, was born in Ontario, Canada. Having attended the public schools of Toronto., he taught therein for about three years. His medical degree was received at Toronto University. After three Years' practice in Toronto, he went to Scotland, where he pursued a course of graduate study in medicine for about a year, and became a licentiate of the Royal College of Edinburgh and Glasgow. Removing to Chicago, he practiced there until his death. In his later years Dr. Campbell confined his attention to diseases of the eye, ear, nose and throat. Dr. Campbell was a man of strong character and lofty ideals.AJO 4:227



Petrus Camper

Camper, Petrus (1722-1789) of Leiden, received his M.D. and Ph.D. at the University of Leiden in 1746, and afterward traveled extensively, acquainting himself with foreign scientists. He held appointments at the universities of Franeker, Amsterdam, and Groningen, then was appointed to the chair of anatomy and surgery at the University of Leiden. He discovered the fibrous structure of the lens, of which he produced notable illustrations.The same year (1746) he wrote two dissertations: "*Dissertatio optica de visu*". Leyden 1746 and "*Dissertatio physiologica de quibusdam oculi partibus.*" Lugduni Batavorum (Leiden) 1746. Albert

Camuset, Georges (1840-1885?) French ophthalmologist. He wrote "*Manuel d'ophthalmologie.*" Paris 1877 which was translated into Italian:"*Manuale di oftalmologia.*" Napoli & Roma 1880; "*Angiome caverneux capsulé de Forbit; opéré avec conservation du globe oculaire et restitution de la vision*" Dijon 1882. Albert

Julien Canneyt

Candolle, Alphonse de (1806-1893), Swiss botanist, professor of botany at the University of Geneva from 1835. He wrote an essay on heredity of eye colors in human species: "*Hérédité de la couleur des yeux dans l'espèce humaine*." Geneva & Basle 1884. Albert

Canella, Giuseppe Maria (1788-1829),Italian surgeon and ophthalmologist in Trentino, Italy. He was the founder of *Giornale di chirurgia pratica* and wrote on ophthalmic and general surgery:"*Riflessioni critiche ed esperienze sul modo di operare la cateratta col mezzo della cheratonissi*." Milano 1819. Albert

Canneyt, Julien van *see* **Van Canneyt**

Canstatt Carl Friedrich (1807-1850) of Ratisbon, Germany, was a pupil of Schönlein, and part of the "natural history school," which attempted to apply the methods of descriptive biology to the classification of disease. He wrote a textbook on medical practice, free of taxonomic theorizing, which was for many years the Bible of German medicine. In ophthalmology he wrote:"*Mémoire et observations sur la cause qui entretient l'ophthalmie militaire dans l'armée Belge*" Brussels 1834. Albert

Cant, William Edmund (1844-1936) British ophthalmologist. After visiting Colchester Royal Grammar School, Cant entered St. George's Hospital in 1863. Qualifying M.R.C.S. in 1868, Cant was house surgeon at St. George's in 1869 and proceeded F.R.C.S. in 1874, and M.D. Dunelm, 1885. From 1878 to 1885 he was surgeon in charge of the Government Lock Hospitals, as well as assistant surgeon to the Central London Ophthalmic Hospital. Cant was trained at Moorfields under→Nettleship, for whom he had a most intense admiration. The great work of his life was done in Jerusalem, where for a quarter of a century he was surgeon to the British Ophthalmic Hospital which is under the control of the historic order of St. John of Jerusalem. When Cant took up his work there in 1886 the conditions were very primitive. The magnificent hospital which now exists and has done so much good work in Palestine, is a lasting memorial to his enthusiasm and perserverance. It was only fitting that he should have been made a Knight of Grace of the order of St. John of Jerusalem. On retiring from active work he went to live at his old home in Lexden. He did not write much but a paper of his in the Transactions of the Ophthalmological 5ociety in 1904 on an operation for Trichiasis-entropion is classical. " *Cant's Cuts*," described in this paper, increase the efficacy of Streatfeild's operation on entropion in inveterate cases and are of importance. BJO 1936,20: 602;Lancet 1936,1:546;LFRCS 1930-1951:130-131.

Cant, William John (1855-1915).British physician from Lincoln. Although not an ophthalmologist he was a member of the Ophthalmological Society of the United Kingdom during his life and served the Council of that society from 1898 to 1901. He wrote a number of articles such as trichiasis and conical cornea. The Ophthalmoscope,1915,p. 588.

Canton, Edwin (1817-1885) Britishstudied at King's College Hospital and was for many years a lecturer on surgical anatomy at Charing Cross Hospital, London. In ophthalmology he authored:"*On the arcus senilis or, fatty degeneration of the cornea*." London 1863. Albert

Caparas, Edgardo T. (1918-) Filipino Ophthalmologist, Professor Emeritus of the College of Medicine, Manila Central University. He graduated from University of Santo Tomas in 1943, and extended his studies in Ophthalmology in the U.S.A.: Quincy City Hospital Quincy, MA (1048-1949), Lancaster Course in Ophthalmology (1949), Graduate Ophthalmology Course, University of Pennsylvania (1949-1950) and Ophthalmic Residency at Boston City Hospital (1950-1952). He is the *first* Filipino Diplomate of the American Board of Ophthalmology (1953) and also the *first* Filipino who received the title Fellow in Ophthalmic Surgery from the American College of Surgeons in 1955. He served as the Professor and Chairman of the Department of Ophthalmology, College of Medicine of Manila Central University (MCU) (1954-1959), and is the Dean of College of Optometry, Central College of the Philippines since 1977. He founded the independent Ophthalmology Department at the MCU and established the residency course of the University Hospital. He served as the President to the following organizations: Philippine Medical Association (1971-1972), Colegio Medico-Farmaceutico de Filipinas (1964-1967), Ophthalmological Society of the Philippines (1962-1964) and Manila Medical Society (1993). He has been a very active Rotarian, and served as the Vice-President of Rotary Club of Manila (1990-1991) and is the recipient of "*Service Above Self Award*" from the Rotary International (1998). His son Victor L. CAPARAS is an Ophthalmologist trained at the University of the Philippines, Stanford University and Massachusetts Eye and Ear Infirmary of Harvard University and founded American Eye Correction Center in Manila.(SM)

Cardell, John Douglas Magor (1896-1966) British ophthalmologist. Cardell was educated at Epsom College and St. Thomas's Hospital, his student course being rendered possible by his winning a succession of scholarships. His medical education was interrupted by the First World War, during which he served as surgeon-probationer in the R.N.V.R. (1916-18). Thereafter he qualified and he continued his service obligations as a captain in the Territorial branch of the R.A.M.C., being Medical Officer to the London Scottish Regiment. During the Second World War he served in the Emergency Medical Service. His main hospital appointments were to the staffs of the Central London Ophthalmic Hospital (1927-47) and subsequently Moorfields Eye Hospital (1947-61) and the Royal Masonic Hospital (1937-61). As senior surgeon to the Central London Hospital he was of immense aid in the delicate negotiations undertaken to amalgamate it with Moorfields and transform it into the Institute of Ophthalmology; as senior surgeon to Moorfields (1958-61) and chairman of the Medical Committee his sound common sense and wisdom did much to consolidate the harmonious working of the amalgamated hospital, and at the Institute he worked conscientiously in the Research Glaucoma Clinic. Brit. J. Ophthal. 1966,50:503

Cargill, Lionel Vernon (1866-1955) British ophthalmologist educated at King's College School, London. He matriculated at the University of London in July, 1884, being awarded the Salter's University Exhibition. Many years later he became Chairman of the Board of Governors of King's College School, now at Wimbledon. In October, 1884, Vernon Cargill entered the Medical Department of King's College, Strand, and in 1887 he began his clinical studies at King's College Hospital. He received the Carter Gold Medal and many prizes and in 1889 was the senior scholar of his year and was awarded Sir Joseph Lister's Clinical Surgery Prize. In April, 1890, after passing examinations for the M.R.C.S., L.R.C.P., and L.S.A., Cargill came under the influence of M. McHardy, professor of ophthalmic surgery at King's College and ophthalmic surgeon to King's College Hospital, who appointed him his clinical assistant at King's College Hospital and also at the Royal Eye Hospital; it was mainly through the advice and influence of Professor McHardy that Cargill subsequently decided to take up the study and practice of ophthalmology. On November 1, 1890, Cargill was appointed house surgeon to Professor Sir Joseph Lister (later Lord Lister) at King's College Hospital. In 1892 he was made F.R.C.S. and in 1893 he became house surgeon and surgical registrar at the Royal Eye Hospital, but in 1894 he returned to King's College Hospital where he had been appointed Sambrooke Surgical Registrar. In 1896 he returned to the Royal Eye Hospital as assistant surgeon, and 3 years later was appointed assistant ophthalmic surgeon at King's College Hospital and ophthalmic surgeon to the Dreadnought Seamen's Hospital, Greenwich. During the South African War he served as ophthalmic surgeon to the Imperial Yeomanry Hospital in South Africa and was awarded a Medal and Clasps., on his return to England he resumed his duties at King's College Hospital and at the Royal Eye Hospital. At the outbreak of the 1914-1918 war Cargill was appointed honorary consultant for diseases of the eye in the military hospitals in London, and he took charge of the ophthalmic beds at the Fourth London General Hospital, located at Denmark Hill; he was awarded the Red Cross War Medal. Vernon Cargill served on the Councils of the Ophthalmological Society of the United Kingdom and the Oxford Ophthalmological Congress, and was an examiner for the diploma in ophthalmology at Oxford. He was a fellow of the Royal Society of Medicine, and the Medical Society of London, and King's College, London. In 1930 he took part in the annual meeting of the "Pacific Coast" Oto-ophthalmological Society at Victoria, British Columbia, and represented King's College Hospital Medical School at the formal opening of the Banting Institute, University of Toronto. In 1931 he retired from the active staff of King's College Hospital; he was then appointed Emeritus Lecturer on Ophthalmology in the medical school and honorary consulting ophthalmic surgeon to the hospital. He was appointed consulting surgeon to the Royal Eye Hospital, and elected chairman of the council, a post which he held until 1948. He also became consulting ophthalmic surgeon to the Dreadnought Seamen's Hospital, Greenwich. He had been a member of the court of the Society of Apothecaries of London and was master of the society in 1939-1940. He had also been vice-president and treasurer of the Board of Registration of Medical Auxiliaries. Cargill's long life extended over the Victorian and Edwardian periods and the turbulent years of two world wars. He played his part in the

transformation of ophthalmology from a minor branch of general surgery into an independent and significant specialty. BJO 1956,40:127-128

Carmalt, William H. (1836-1929) American Ophthalmologist, founding member of the American Ophthalmological Society in 1864. After studying engineering at Yale for a year, he spent two years at the medical school of the Doctors Wyman at Cambridge, Massachusetts, and then became a private pupil of Dr. John C. Dalton, professor of physiology in the College of Physicians and Surgeons in New York City, where he received his M.D. in 1861. He served as surgeon in the Civil War. Returning to New York, he became assistant, and later surgeon, to the New York Eye and Ear Infirmary. In 1859, as commissioner of the New York State Agricultural Society, he published his first paper *"On Abortion in Cows"*. In 1870 he went to Europe, remaining until 1874, studying in Strasbourg and Paris. In 1876 he moved to New Haven and entered on special ophthalmic practice. In 1881 he was appointed professor of Principles and Practice of Surgery, a position he held until 1907. In 1885 he became a member of the American Surgical Association, and in 1907 its President. With the organization of the Congress of American Physicians and Surgeons he was made its secretary, and this position he continued to fill from 1888 to 1910, during which time the Congress reached its greatest prominence and usefulness. Of Carmalt´s thirty-eight published writings, nine papers dealt with subjects belonging to ophthalmology, four having been read before the American Ophthalmological Society, one before the American Surgical Association, and one on *"specialism in medicine"* being his president's address before the Connecticut State Medical Society. His interests continued broad throughout the fifty years he devoted largely to special practice. He read before the Connecticut State Medical Society a paper *On Heredity and Crime, a study in eugenics*; and his last paper, published in 1926, reviewed the history of *the second half-century of the General Hospital Society of Connecticut*. When Carmalt received his medical degree, very few reputable members of the medical profession had taken up ophthalmic practice as a specialty. Henry W. Williams of Boston studied ophthalmology at Paris, Vienna, and London three years before he graduated at Harvard in 1849; and in 1850 he showed his interest in it by teaching a class of students. But it was 1869 before he was made lecturer in ophthalmology in Harvard, and 1871 before he was given the title of professor. Elkanah Williams went to Europe to study surgery. But he was diverted to ophthalmology, which he studied in Paris, London, Berlin, Prague, and Vienna and he never gave up his interest in general medicine. In New York Henry D.→Noyes had returned from Europe in 1859, and had engaged in special practice, reporting his first ophthalmoscopic cases in 1860. In Philadelphia Isaac→Hays, who gave most of his life to editing the American journal of Medical Sciences, and Squire→Littell, who in 1837 had published a *Manual of Diseases of the Eye*, were surgeons to Wills Eye Hospital from its opening in 1834, and undertook ophthalmic practice. All these had given some attention to otology. Herman→Knapp, four years older than Carmalt, came to New York in 1868 and founded the New York Ophthalmic and Aural Institute. When the American Ophthalmological Society had been meeting for two years its members formed the American Otological Society, which for many years met at the same place as, but the day before, the American Ophthalmological Society. It was as a representative of the American Otological Society that Carmalt was chosen secretary of the Congress of American Physicians and Surgeons, formed by the coming together of the American special societies. Carmalt's life covered the period of the specialization of ophthalmology; but he did not pass from the general practice of medicine and surgery into special practice, as did most of his confreres. He became assistant to the New York Eye and Ear Infirmary in 1863, two years after he graduated, and was appointed a surgeon, resigning in 1870. As already mentioned, it was in 1876 that he was made lecturer, and in 1879 professor of ophthalmology and otology at Yale; while in 1881 he received the title of professor of principles and practice of surgery in the medical school of that university. In Philadelphia, before Thomson, Strawbridge, Harlan, and Norris were appointed surgeons to Wills Hosffital, its clinics were in the hands of four surgeons, who each had a general surgical service in the Pennsylvania Hospital. When Carmalt graduated, every surgeon at the Royal London Ophthalmic Hospital at Moorfields was a general surgeon. When the American Ophthalmological Society was organized, its first meeting was called to order by Dr. F. J. Bumstead, best known in connection with genito-urinary surgery; and its first

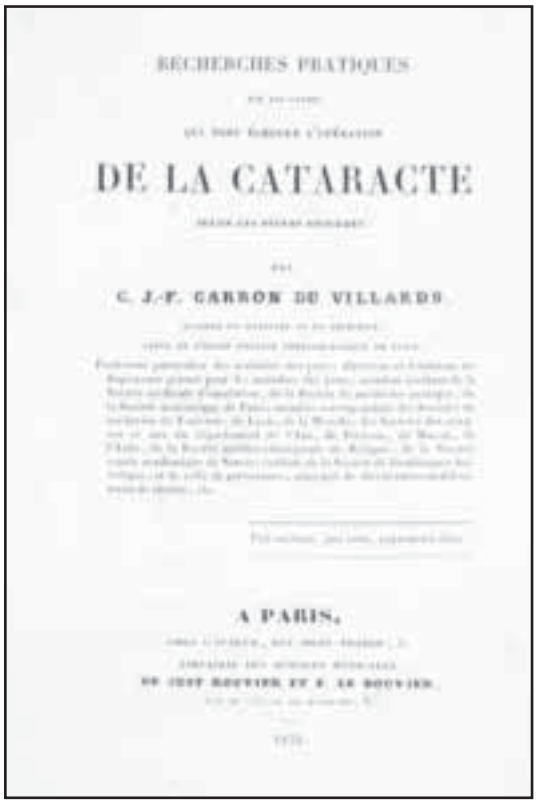
president-holding the office four years was Edward Delafield, who, although associated with the organization of the New York Eye and Ear Infirmary, was better known for his work in obstetrics and pediatrics. At that time the workers at Moorfields, from Sir William Bowman to Jonathan Hutchinson, were all classed as general surgeons.
AJO 1930,13:703-705

Carpenter, George A. (1859-1910) British paediatrician who devoted much attention to ophthalmology. Carpenter received his medical education at St.Thomas´s and Guy´s Hospitals , London. In 1886 he received his M.B. and four years later the M.D. His greatest services were given in the field of paediatric ophthalmology. American Encyclopedia of Ophthalmology, Vol.2, p.1427.

Carreras y Aragó, Luis (?- ?) Spanish ophthalmologist and founder of the first bacteriological laboratory in Spain. He wrote:"*Coleccion de articulos y observaciones clinicas sobre varias enfermedades de los ojos*" Barcelona 1875 and "*Exàmen y mejora de la vision*" Barcelona 1880. Albert

Charles J. F. Carron du Villards

Carron du Villards, Charles Joseph Frédéric (1801-1860) French ophthalmologist, born in Savoy, France, studied medicine in Pavia under Antonio →Scarpa, and for some years taught ophthalmology in Paris. He spent some time in North Africa, Mexico, and Central and South America. He wrote: "*Recherches pratiques sur les causes qui font échouer l'opération de la cataracte*" Paris 1835 and "*Guide pratique pour l´étude et le traitement des Maladies des Yeux*" Paris 1838. With Pierre François Bénézet→Pamard, Ange→Guépin, de Bressey and Charles Phillips he published "*Études cliniques sur la kératite scrophuleuse*" Paris c.1835; "*Guide pratique Pour l'exploration méthodique et symptomatologique de l'œil et de ses annexes*" Paris 1836 and "*Du strabisme considérations pratiques sur la myotomie oculaire*" Paris 1846. Other titles were : "*De la kératite scrofuleuse*" Paris 1837; "*Recherches médico -chirurgicales sur L´Operation de la Cataracte*"Paris 1837; "*Rapport addressé sur les maladies oculaires, observées et traitées dans le Grand-Duche de Luxembourg*". Luxembourg 1844. Albert


RECHERCHES PRATIQUES

DE LA CATARACTE

C. J.-F. CARRON DU VILLARDS

A PARIS.

Carter, Robert Brudenell (1828-1918) British ophthalmologist. He studied at the London Hospital, where he received his M.D. in 1851. From 1870 to 1893 he taught in the eye department of the medical school at St. George's Hospital, London, and was one of the most distinguished English ophthalmic surgeons of the nineteenth century. Carter was among the early English users of the ophthalmoscope, along with Allbutt, Hughlings Jackson, and Hutchinson. He developed a photometer to test for color sense and devised an operation for corneal staphyloma. He wrote:"*Hints on Diagnosis of Eye Diseases*" London 1865;"*On contagious Ophthalmia*" London 1873; "*A practical treatise on diseases of the eye*." London 1875; *A practical treatise on diseases of the eye edited with additions and test-types by John Green*. Philadelphia 1876 (First American edition). "*On defects of vision which. are remediable by optical appliances*" London 1877; *Eyesight: good and bad*. 2nd ed. London 1880;"*Lectures on Colour Blindness*" London 1881; "*Eyesight and*

Civilisation" London 1884; "*Eyesight in Schools*" London 1885; "*The modern operations for cataract*" London 1884. He also wrote with William Adams→Frost: "*Ophthalmic surgery*" London 1887. Albert

Cartesius,Renatus *see* **Descartes, René**.

Cary, Edward (? – 1953) American ophthalmologist. Founder of Dallas Academic ophthalmology. Cary received his medical degree from University and Bellevue Hospital Medical College in New York in 1901. He returned to Dallas to begin the practice of ophthalmology. Shortly after arriving in Dallas, Cary discovered that the University of Dallas Medical Department was operating in an abandoned synagogue and was staffed by local physicians who would lecture between calls on private patients. Cary joined the faculty as Professor of Ophthalmology in 1902, and three months later was elected dean. Within a short time, he helped to established a formal affiliation with Baylor University in Waco, and in 1903 the organization became Baylor University School of Medicine. Cary remained as Professor of Ophthalmology and Otolaryngology at Baylor, but stepped down as Dean in 1920. Under Cary's leadership, a group of prominent citizens of Dallas organized the Southwestern Medical Foundation in 1939 to promote medical education and research in Dallas. From its inception, the foundation was aligned with Baylor College of Medicine. However, in 1943 this association disintegrated when Baylor College of Medicine moved from Dallas to Houston. Cary remained in Dallas and served as the president of Southwestern Medical Foundation, which formally established Southwestern Medical College as the sixty-eighth medical school in the United States. Cary served as president of Southwestern Medical College until it officially became part of the University of Texas in 1949. In addition to his many administrative and teaching responsibilities, Edward Cary practiced ophthalmology for over 50 years and published over 60 scientific papers in medical journals. His leadership skills were recognized both locally and nationally. He was elected president of numerous medical associations including the University of Dallas Medical Department, Baylor Medical College, Southwestern Medical College, The Dallas County Medical Society, the Texas Medical Association, the Southern Medical Association, and the American Medical Association. Cary was one of the founders of the Dallas Historical Society and was honored as the outstanding citizen of Dallas. The Cary Basic Science Building is a permanent reminder of his many contributions to the establishment and success of academic ophthalmology in the Dallas/Fort Worth area. (JPW)

Casey, Thomas Aquinas (1929-1993) Irish ophthalmologist. Thomas Casey was born in Limerick, the son of Michael Casey, a fanner. He was educated at University College, Dublin, and after specialising in ophthalmology became registrar first at the Westminster Hospital and later at Moorfields. Casey was appointed to direct the corneoplastic unit on the sudden death of its founder, Sir Benjamin Rycroft, there he established an impressive postgraduate centre for teaching and research. He possessed a happy combination of inspiration, surgical dexterity, administrative flair and capacity for hard work. He greatly extended the range of corneal grafting, first in the technique of deep-freezing of corneas, and later in setting up a bank of tissue-typed corneas to minimise the risk of rejection. This led him to be appointed to the staff at East Grinstead where he directed the corneoplastic unit, and to a consultant post at Hillingdon Hospital. After he had been President of the Ophthalmological Section of the RSM he became Honorary Treasurer of the Society. He organised the International Corneoplastic Congress in London in 1977 which was a resounding success. He wrote many papers and two books: *Corneal Grafting* (1972) and *Color Atlas of Corneal Dystrophies* (1991). Casey received following titles: MRCS and FRCS 1967; MB BCh BAO National University of Ireland 1953; MCh NUI 1960. BMJ 1993, 306:1536.LFRCSE. BJO 1993, p.466.BMJ 1993,306:1536. JPW.

Cashell, Geoffrey Thomas Willoughby (1906-1994) British ophthalmologist. Geoffrey Cashell was educated at Westminster School, London, before starting his medical training at King's College Hospital, where he qualified LMSSA and MRCS LRCP in 1930. 1933 was an eventful year: he passed the MB BS London and the FRCS Edinburgh and was appointed honorary consultant ophthalmic surgeon to Reading and district hospitals. His

choice of specialty was shared with his cousin Keith Lyle, eminent ophthalmologist on the honorary consultant staff at King's. He pursued a distinguished career in Reading, where he built up an outstanding eye department. He established a school of orthoptics, and devoted much of his time to the training of the young orthoptists there. He took on a heavy load of medical administration, and was a prime mover in fund-:raising for the Postgraduate Medical Centre. In 1967 he was invited to collaborate with Isabel Durran on the *Handbook of Orthoptic Principles*, which became a classic text and which received a second edition in 1980. His achievements were rewarded with many honours in later years. He was ophthalmic consultant to the RAF medical service, honorary Fellow of the Australasian College of Ophthalmologists and the recipient of an honorary DSc at Reading University. He was a Knight of the Order of St John of Jerusalem, Master of the Worshipful Society of Apothecaries, treasurer of the Faculty of Ophthalmology and Chairman of the British Orthoptic Board. Cashell earned following titles:KS0; MRCS 1930; FRCS ad eundem 1952; LMSSA 1930; MB BS London 1933; DSc Reading 1976; Hon FRACO 1976; FCOphth 1988; LRCP 1930. BMJ 1994 308 1632. LFRCSE. JPW.

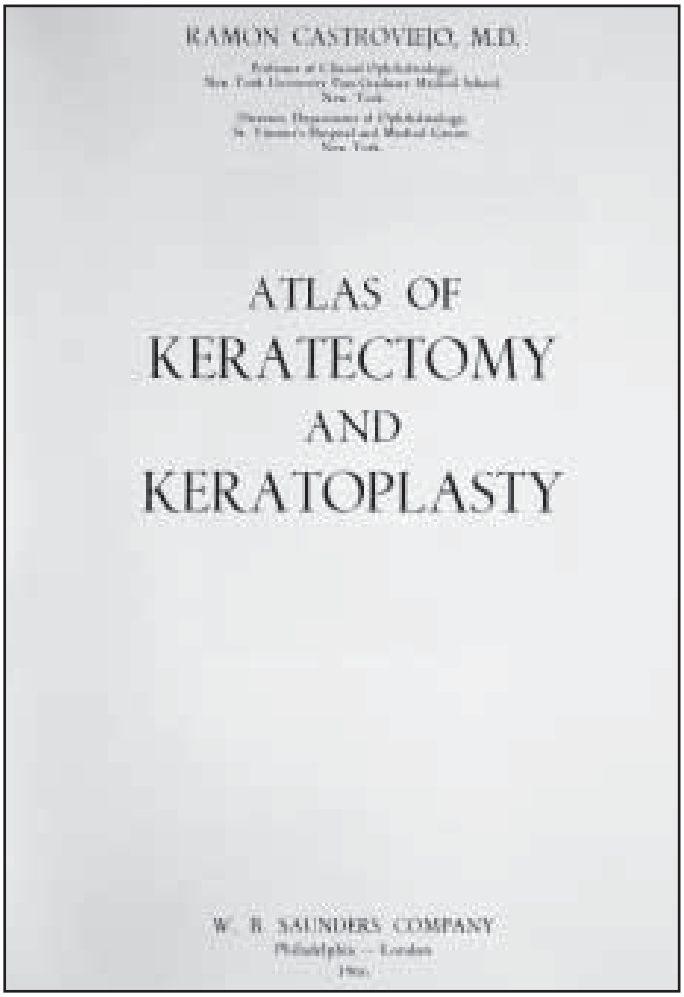
Cassius, Felix of Cirta in Africa (flourished about 450 A.D.) A physician who composed, or compiled, a work called "*Cassii Felicis de Medicina ex Graecis logicae sectae Auctoribus Liber Translatus sub Artabure et Calepio Consulibus*". This work was composed in 447 A.D. and contains twenty-nine sections relating to ophthalmology. American Encyclopedia of Ophthalmology, Vol.2,p.1435.

Casso, Johannes de. A 14th century Montpellier ophthalmologist, whose life dates are unknown. In 1346, at the request of Thomas de Corsinis of Florence, he wrote a small pamphlet called "*Tractatulus de Conservatione Sanitatis Oculorum*," which is, in fact, an excellent condensation of Arnold of Villanova's "*Libellus Regiminis de Confortatione Visus*." Johannes, however, refers to various other writers: →Avicenna, →Galen, →Mesue, →Razes, →Serapion and →Peter the Spaniard.American Encyclopedia of Ophthalmology,Vol.9,p.6723

Castle, Charles Henry (1862-1918) American ophthalmologist of Cincinnati, 0hio. He was born in Philadelphia, PA. His general education was received at the University of Pennsylvania, and his medical degree at the Miami Medical College, Cincinnati. From 1886 till 1890 he was receiving physician at the old Cincinnati Hospital, and from 1889 till 1899 he studied the eye, ear, nose and throat with Dr. Robert Sattler, of Cincinnati. He was afterwards on the staff of Dr. Christian R. Holmes's private hospital. Dr. Castle was the *first* to use the Roentgen ray in Cincinnati, was one of the founders of the new *Cincinnati General Hospital*, a medical director of the *The Federal Union Life Insurance* and a *Fellow of the American College of Surgeons*.AJO,1:381

Castorani, Raphaël (?-?) French ophthalmologist who wrote: "*De la kératite et de ses suites*" Paris 1856 ; "*Mémoire sur l'extraction linéaire externe simple et combinée de la cataracte*" Paris 1874. Albert

Castroviejo, Ramon (1905-1987) Spanish ophthalmologist, pioneer in corneal transplantation, who practiced and taught in New York City for much of his career. He was born in Logrono, Spain. He graduated in 1927 from the Medical School of the University of Madrid and was briefly an assistant at the Red Cross Hospital. He was then all attending ophthalmologist at the Chicago Eye, Ear, Nose and Throat Hospital from 1928 to 1930 and was then a research fellow at the Mayo Clinic. From 1931 to 1952 he was associated with Columbia Presbyterian Medical Center in New York. He was Chief of Ophthalmology it St. Vincent's Hospital and Attending Surgeon at Bellevue Hospital. Additionally he was Clinical Professor at New York University Post Graduate Medical School and Mt. Sinai Medical School, New York. He was also a consultant at many institutions, including the New York Eye and Ear Infirmary and St. Clare's Hospital. He was an honorary professor at the University of Santo Tomas, Manila. He founded the Ramon Castroviejo Institute of Ophthalmic Research at the Universidad Autonomia de Madrid, which continues. He was a member of all the major ophthalmic societies in the United States. He was an honorary member of the ophthalmic societies of Argentina,



Castroviejo´s American edition of his famous Atlas.

Australia, Brazil, Chile, Colombia, Costa Rica, Cuba, Egypt, Greece, India, Israel, Mexico, Panama, Peru, and South Africa. He was the recipient of many honors and decorations both in this country and abroad. He was the author of some 250 articles and of the famous *Atlas de Queratectomias y Queratoplastias* , Madrid 1964 (English edition *Atlas of Keratectomy and Keratoplasty* 1966 and in German language: *Keratoplastik* 1968). He also edited *Symposium on the Cornea* Mosby 1972. His most important attribute was an untiring commitment to ophthalmic surgery and to his patients, particularly to those who required surgery. His intensity during surgery was legendary. He was able to operate without being disturbed by many observers and was perhaps the first to do major ambulatory eye surgery in New York City. He devised many instruments which are still used in their original or modified form. His contributions were original and extremely valuable in corneal surgery, cataract, and glaucoma procedures. He popularized keratoplasty in the USA , and possibly the world. After his retirement he returned to Madrid. AJO 1987,103:733 JPW

Cat, Claude Nicolas le (1700-1768) French anatomist and surgeon born at Blérancourt (Oise). He studied for a time in Paris, was called to Rouen by the Archbishop and received his degree M.D. in 1732 in Rheims. He settled 1733 at Rouen for the practice of medicine and surgery. Le Cat became 1734 Master of Surgery and Chief Surgeon of the Hôtel-Dieu at Rouen. He soon distinguished himself as a teacher of anatomy and surgery, and, in 1744 , founded the Royal Academy of Sciences, Literature (Belles-Lettres), and Arts at Rouen. From 1732 till 1738 le Cat competed for all the prizes offered by the Royal Academy of Surgery in Paris, and was so successful that he finally was requested to compete no longer , in order to give others a chance to win! He assisted in the exposure of the famous and infamous English intinerant oculist and quack John →Taylor. He was nobled in 1762. He wrote little on ophthalmology. However his book "*Traité des Sens*" Amsterdam 1744 is devoted chiefly to the physiology of the eyes and contains a very impressive copper plate on the anatomy of the brain with the eyes. American Encyclopedia of Ophthalmology, Vol. 2,p.1437-1438.

Catanoso, Natale (?-?) Italian physician who wrote:"*Osservazioni cliniche sopra l'estrazione del cristallino; precedute da gualche cenno sui motivi che rendono incerta l'operazione della cataratta*" Messina 1823. Albert

Cauchy, Baron Augustin Louis (1789-1857) Famous French mathematician and physicist who started his career in politics following that way until the position of first secretary to the senate. In 1811 he started his mathematical career. He also wrote an essay on light: "*Mémoire sur la théorie de la lumière*" Paris 1830.Extended entry in DSB Vol.III,131-148. Albert

Cavalieri, Bonaventura (1598-1647) Italian Jesuit. He was a professor of mathematics at Bologna and a correspondent of→Galileo. He succeeded Magini at Bologna, and extended whose research on spherical mirrors. He was the *first* to provide a formula for finding the focal distance for parallel rays of light for any convex or concave lens.This formule appeared in Cavalieri's "Exercit. Geomet." (Bonan 1647). He also wrote:"*Lo specchio ustorio overo trattato delle settioni coniche*" Bologna 1632. Albert

Cazelles, Émile-Honoré (?- ?) French ophthalmologist. He wrote: "*Du traitement de l'ectropion cicatriciel*." Paris 1860. Albert

Celsus, Aulus Cornelius (25 B. C.- 50 A. D.) An ancient Roman encyclopedist, possibly a physician, and certainly the author of the oldest systematic treatise on ophthalmology extant from Greco-Roman times. There has been much discussion as to whether Celsus was or was not a physician. It is more than likely that he was a man of the leisure class who amused himself with studies of various kinds-among them the study of medicine-and that, at times, in a neighbourly way, he did practice as a physician. There are signs in his work both of layman and of physician. Among the numerous books by Celsus were works on agriculture, history, rhetoric, jurisprudence, the military art and medicine. Of all these compositions that on medicine only, *"De Medicina,"* has come down to our day. The date of authorship of this extremely valuable book is very probably 29 or 30 A. D.; the book is, therefore, an exposition of the medical and surgical views of the civilised world at the beginning of the Christian era. The date of authorship is, indeed, as above given, that of the Crucifixion. The work, *"De Medicina"*, is composed of eight books. The first treats of hygiene (for the most part, dietetics) ; the second, of general pathology and general therapy; the third, of general diseases; the fourth, of local diseases; the fifth, of materia medica; the sixth, of eye, ear, nose, mouth, throat, and genito-urinary diseases; the seventh, of surgery; while the eighth, or last, book is devoted to diseases of the bones. The ophthalmologic portions of the work consist of chap. vi, of Book six, and chap. vii of Book seven; and, inasmuch as these portions are not of excessive length, and inasmuch, further, as they constitute the earliest systematic treatise on our specially which has come down to our day from Greco-Roman times. American Encyclopedia of Ophthalmology, Vol..3,p.1926-1951.

Chadwick, George Henry (1831-1888) American ophthalmologist.He received his medical degree at the Albany Medical College; practised at Portland, Me., and died in the same city. He never wholly gave up general practice, but was widely known as an ophthalmologist, especially because of his invention of "Chadwick's Pterygium Scissors. These were based upon the idea that scissors for the removal of pterygium should be constructed to fit exactly the curvature of the eyeball. American Encyclopedia of Ophthalmology, Vol..3,p.1982.

Chalupa Leo M. (?) American, Professor of Neurobiology and Psychology at University of California, Davis. Dr. Chalupa received his degrees B.S. (Biology) in Queens College 1966 and his Ph.D. (Neuropsychology) City Colege of New York. Chalupa is interested in development and plasticity of the mammalian visual system. Development of excitable membrane properties in retinal ganglion cells. Factors that regulate the establishment of functional, neurochemical, and structural properties of retinal ganglion cells. Papers: Snider CJ, C Dehay, H Kennedy, M Berland, and LM Chalupa. 1999. *Prenatal development of retinogeniculate axons in the macaque monkey during segregation of binocular inputs*. Journal of Neuroscience 19:220-228; Chalupa LM and CJ Wefers. 1999. *A comparative perspective on the formation of retinal connections in the mammalian brain*. *The Cognitive Neurosciences*. MS Gazzaniga, ed. Cambridge: MIT Press. Wang G-Y, BA Olshausen, and LM Chalupa. 1999. *Differential effects of apamin- and charybdotoxin-sensitive K+ conductances on spontaneous discharge patterns of developing retinal ganglion cells*. Journal of Neuroscience 19:2609-2618.
Phone: (530) 752-1617; lmchalupa@ucdavis.edu (AB)

Chamblant (?-?) a Paris optician, was among the first to attempt to relieve astigmatism by means of cylindrical lenses. He published "*Nouveaux verres d'optique, à surfaces de cylindre, de l'invention de M. Galland*" Paris 1818. Chamblant describes his creation of a plano cylindrical glass, invented by a M. Galland and produced for an astigmatic patient named Goode. The lenses were to facilitate accurate vision of objects both near and distant. Albert.

Chamseru, Jean François Jacques Rousille de (1750 - ?) French physician who wrote a number of ophthalmologic monographs. Born at Chartres he studied at Paris and there received. his medical degree with the thesis of "*An ad Feliciorem Ulcerum Curationem Conferat Blandior et Rarior Medicina".* He served as surgeon in the army of Napoleon, afterward settling in Paris. The date of his death is not procurable. He wrote a large

number of articles of a general medical character, as well as the following, which, possess an especial interest for ophthalmologists: *"Recherches sur la Nycltalopie etc."* (Paris, 1786) *"Rapport sur 1'Observation Faite par Demours sur une pupille Artificielle etc." (Recueil Period. de la Soc. de Medecine,* 1800, viii) *"Recherches sur I'Ophtalmie d'Egypte" (Ib.* 1801, x). American Encyclopedia of Ophthalmology, Vol..3,p.1996-1997.

Eugene Chan

Chan, Eugene (1899-1986) Chinese Ophthalmologist, Professor Emeritus of Zhongshan Ophthalmic Center, Sun Yat-Sen University of Medical Sciences, the Pioneer for modernization of Chinese Ophthalmology. He graduated from Boston University, Boston, MA, U.S.A. in 1927 and received his M.D. degree. He studied as a Fellow at the Wilmer Ophthalmological Institute, Johns Hopkins University from 1929 to 1934. On his return to China, he served as the Professor of Ophthalmology of Cheeloo University, Jinan (1934-1939) and he moved to become the Professor of Ophthalmology, Eye and ENT Hospital, West Union University, Chengdu in 1939 and served until 1950. He was then appointed in 1950 the Professor and Chairman of the Department of Ophthalmology, Sun Yat-Sen University of Medical Sciences in Guangzhou and worked until his retirement in 1977. During his tenure, he served as the Director of the University Hospital (1965-1977). He was then invited to be the Professor of the Department of Ophthalmology, Beijing Union Hospital and worked between 1977-1983. He was then named the Honor Director of the Zhongshan Ophthalmic Center in 1979-1986. His professional activities were extensive: Honor President of the Chinese Ophthalmological Society (1976-1986), Member of the American Academy of Ophthalmology (1979-1986), Guest of Honor to the 85th Congress of the Japanese Ophthalmological Society (1981) and to the American Academy of Ophthalmology (1981). He was also a member of the Chinese Society of Medical History. He published more than 100 scientific papers and wrote many books, and some examples are as follows: *"May's Ophthalmology"* (Translated Chinese Version, Chinese Medical Association, Beijing 1953), *"Ophthalmology: University Textbook"*, 1st Ed. People's Medical Publ. House, Beijing, 1964, *"Index of Literatures and Topics in Ophthalmology"*, Knowledge Press, Beijing 1980. He served as the Editor-in-Vice Chief of the *Chinese Journal of Ophthalmology* in 1951-1965. He was the recipient of the Distinguished Service Award from the Asia-Pacific Academy of Ophthalmology (1983) and the Recognition Award from the Association for Research in Vision and Ophthalmology (ARVO) (1986).His wife was MAO Wenshu (Winifred), Professor of Ophthalmology (see her biography).(SM), AJO 1986,102:286-287

Chan, Tat Keong (1961-) Singapore Ophthalmologist, Senior Lecturer in the Department of Ophthalmology, National University of Singapore. Also Visiting Consultant in the Singapore National Eye Centre, Singapore. He graduated from the National University of Singapore in 1985 and obtained a Master of Medicine in Ophthalmology from the same university in 1991. He also received the Fellowship of the Royal College of Surgeons of Edinburgh as well as the Fellowship of the Royal College of Ophthalmologists (United Kingdom) in 1991. In 1996, he completed a Clinical and Research Fellowship in Cornea and External Disease at the Wilmer Ophthalmological Institute, Johns Hopkins University School of Medicine in Baltimore, U.S.A. His research interest is in ocular infectious diseases, particularly in the area of molecular diagnosis of severe, potentially blinding ocular infections. He leads the research group in ocular infections at the Singapore Eye Research Institute and he also serves on the Scientific and Ethics committees of the same institute. He is a member of the Ocular Microbiology and Immunology Group (OMIG) in U.S.A. and was a member of the International Advisory Board of the 2nd International Conference on Ocular Infections in Munich, Germany in 1998. He is the Associate Representative for Singapore in the International Council of the International Society of Refractive Surgery (ISRS). He is a contributing author to two major books on refractive surgery *"Refractive Surgery"* (Editor Dimitri T. Azar, Appleton and Lange) and *"Excimer Laser Phototherapeutic Keratectomy"* (Editor Dimitri T Azar, Roger F. Steinert and Walter J. Stark, Williams and Wikins). He is also a member of the American Academy of Ophthalmology, the American Society of Cataract and Refractive Surgery (ASCRS) and the Association of Research in Vision and Ophthalmology (ARVO). (Dr Chan Tat Keong: National University Hospital, 5 Lower Kent Ridge Road, Singapore 119074. Phone: (65) 7725316; Fax:(65) 7777161; e-mail: ophctk@nus.edu.sg) (SM)

Chan, Wing-Kwong (1960-) Singapore Ophthalmologist, Deputy Director of the Cornea Division and Consultant at the Singapore National Eye Centre (SNEC). He graduated from the National University of Singapore in 1985 with a Bachelor of Medicine and Bachelor of Surgery. He received his Master of Medicine (Ophth) from the National University of Singapore; and was admitted as a Fellow of the Royal College of Surgeons of Edinburgh; and Fellow of the Royal College of Ophthalmologists (UK) in 1991. He was Visiting Assistant Professor during his one year Fellowship at the Jules Stein Eye Institute, UCLA School of Medicine, Los Angeles from 1994 to 1995 where he received subspecialty training in diseases and surgery of the cornea, refractive surgery and contact lenses. His other appointments are Clinical Teacher in the Faculty of Medicine, National University of Singapore since 1992; Associate Staff of the National University Hospital, Singapore; Visiting Consultant of the Kandang Kerbau Women & Children's Hospital, Singapore; and Honorary Visiting Consultant of the Xiamen Eye Hospital, China since 1997. His professional responsibilities include being the Consultant-in-Charge of the Refractive Surgery Service of the SNEC and Coordinator of the Excimer Laser Committee, SNEC. He is a Member of the Editorial Committee of the Asia Pacific Journal of Ophthalmology. He is Internal Examiner for the Conjoint Master of Medicine (Ophthalmology) *I* FRCS (Edinburgh) Examination of the Graduate School of Medical Studies, National University of Singapore and Examiner for the Fellowship Examination in Ophthalmology, Royal College of Surgeons of Edinburgh since 1999. He also serves as a Member of the Expert Panel for Drug Evaluation, Ministry of Health, Singapore since 1999; Member of the Contact Lens Practitioners Board, Ministry of Health, Singapore since 1998; and Member of the Specialist Training Committee (Ophthalmology), Graduate School of Medical Studies, National University of Singapore since 1998. His regional and international ophthalmic educational activities include giving lectures and live surgery demonstrations in cataract and corneal surgery in China and Singapore. He has also conducted teaching courses for excimer laser photorefractive keratectomy and laser in-situ keratomileusis in New Delhi, Amsterdam, Beijing, Hong Kong and Singapore. He is an instructor for the annual ophthalmic microsurgery course conducted conjointly between Singapore National Eye Centre and the Tun Hussein Onn National Eye Hospital, Malaysia, and a teacher in the annual Advanced Course in Ophthalmology conducted by the Graduate School of Medical Studies, National University of Singapore. His research interest is in refractive surgery such as excimer laser surgery for myopia and astigmatism, corneal topography and wound healing after excimer laser surgery, intrastromal corneal ring implants and phakic intraocular lenses for the correction of myopia. He is the Principal Investigator of the Singapore National Eye Centre LASIK Assessment Trial and the Hyperopic LASIK Trial; and Co-Investigator for the Keravision Intrastromal Corneal Ring Segment trial for the correction of myopia. His publications include *"The Prediction of Surgically Induced Refractive Change from Corneal Topography*. Am J Ophthalmol 1998; 125: 44-53*."*, *"Harvesting a Lamellar Graft From a Corneoscleral Button. A New Technique*. Am. J. Ophthalmol. 1997; 123; 688-689*"*, *"Autologous Keratophakia for the Correction of Consecutive Hyperopia after Automated Lamellar Keratoplasty for Myopia*. J. Refract. Surg. 1996; 12: 514-516*"*, *"Photorefractive Keratectomy for Myopia of 6 to 12 Diopters*. J. Refract. Surg. 1995; 1 1(suppl): 5286-5292*"* and *"A Multicenter Trial of Photorefractive Keratectomy for Residual Myopia Following Previous Ocular Surgery*. Ophthalmology 1995; 102: 1042-1053*"*.?He is a recipient of the Distinguished Service Award of the Asia Pacific Academy of Ophthalmology (1999), Muthusamy Medal in Ophthalmology of the Royal College of Surgeons of Edinburgh, UK (1991) and Gold Medal for the Master of Medicine (Ophthalmology) examination of the National University of Singapore (1991). (Dr Wing-Kwong Chan, 11 Third Hospital Avenue, Singapore 168751. Phone: 65-2277255; Fax: 65-2277290; e-mail: wkchan@pacific.net.sg) (SM)

Chance, Sr. Burton (1868-1965) American ophthalmologist. His death at the age of 97 years, closed the great triumvirate of ophthalmic historiographers. The pioneer of this group was Berlin's famous Julius →Hirschberg (1843-1925). Of similar stature was London's Robert Rutson →James (1881-1964) and Philadelphia's Burton Chance (1868-1965). Dr. Chance's bibliography of over 250 separate publications is a tremendous store house of biographical and historical data, both in ophthalmology and in the cornerstones

which underlie the development of this specialty. For many years, the *Archives of Ophthalmology* published his numbered "Short studies on the history of ophthalmology," and the *Annals of Medical History* published a long list of individual biographical sketches generally under the name of the concerned individual. Chance wrote volume 20 (*Ophthalmology*) of the series *Clio Medica-A Series of Primers on the History of Medicine* New York 1939. Most of his scientific publications were case studies, with particular reference to neoplasms and color blindness. Like Sir William Osler, who was the youngest son in a family of nine children or Rutson James, who was the 11th child in a family of 12, Burton Chance was the youngest of 10 children. His early education was at the Episcopal Academy of Philadelphia, along with a dozen other youngsters who became distinguished medical leaders of the United States. His early interest in the sea and color vision was sparked by two maternal uncles, both of whom were sea captains and were color blind, and by a maid in his home who was also color blind. During his childhood years, she became the object of elementary studies on color vision. After completing his formal medical education at the University of Pennsylvania, Chance signed on the crew of a five masted schooner to Africa and back. Throughout his life he retained an active interest in sailing and foreign travel. During his internship (1893-94), be was always on hand when attending oculists visited the St. Joseph's Hospital, and he earnestly extracted from them all of the ophthalmic information possible. In 1894, he became resident surgeon at the Wills Eye Hospital, and in 1895 began his career on the staff, leading to his appointment as a chief surgeon on October 6, 1916. He withdrew from his active surgical position in 1933 and remained a consulting surgeon until his death. In 1957, the trustees presented to Dr. Chance their certificate "in recognition of 63 years' service to the Wills Hospital." Chance was an active member of the Section on Ophthalmology of the College of Physicians of Philadelphia from 1895 and a member of the American Ophthalmological Society from 1904. He served on the Editorial Staff of the *Annals* of *Ophthal*mology until 1917 when Edward Jackson founded the third series of the *American Journal of Ophthalmology* and appointed Chance as collaborating editor. Chance began his military career in the Medical Reserve Corps in 1906 and was called to active duty during World War I as chief of the Eye Department of Base Hospital No.11. In approximately 20 months he moved from captain to lieutenant colonel. Though the name and works of Chance appeared in almost every ophthalmic volume published during his active years, he generally avoided the public eye and even a private photographer. Photographs are almost nonexistent, but the "coronation year silhouette" provided much enjoyment to his close circle of admirers. Harassed by progressive visual impairments and the inroads of occlusive arterial disease, his last dozen years were progressively difficult for Dr.Chance and he withdrew from almost all ophthalmic and social contacts. It is unfortunate that most ophthalmologists entering the specialty after World War II had no opportunity to enjoy the tremendous historical background which was an inherent part of Dr. Chance's everyday life.AJO 1965,59:1147-1148

Chandler, George (?- 1822) British ophthalmologist of Surrey, England. Chandler became a member of the Corporation of Surgeons in 1769, was a surgeon at St. Thomas's Hospital, and held numerous teaching posts at the College of Surgeons. Among the few eighteenth-century English ophthalmological surgeons, Chandler acquired a reputation as an extremely rapid operator. He authored:"*A treatise of a cataract operations by couching and extraction: also Mr. Daviel's comparative view of their respective merits*" London 1775 and "*A treatise on the diseases of the eye, and their remedies*" London 1780. American Encyclopedia of Ophthalmology, Vol..3,p.2004, Albert

Chandler, Paul Austin (1897-1987) American ophthalmologist focused on glaucoma. Chandler was born on a farm in New Virginia, Iowa, and was one of seven children. At age 16 he moved to Nebraska and later attended Hastings College, Hastings, Nebraska. He chose to attend Harvard Medical School "because it was farthest away and I wanted to find out what I could do on my own," and was a 1924 graduate. At Harvard, he met his wife, Marjorie (Pollard) Chandler, who was head nurse on a ward at the Peter Bent Brigham Hospital under Dr. Harvey Cushing. After a residency at Massachusetts Eye and Ear Infirmary, he returned briefly to Hastings, Nebraska to practice ophthalmology with Eugene C. Foote, who had encouraged him originally in his career. However, he was soon

requested to return to Boston by George S. Derby, Chief of Ophthalmology at Massachusetts Eve and Ear Infirmary, as his assistant. He worked in private practice in Boston and at the Massachusetts Eye and Ear Infirmary from the late 1920s until his retirement at age 82 in the late 1970s. His partners in practice were Carl C. Johnson, and Richard J. Simmons. He was Consulting Chief of Ophthalmology at Massachusetts Eye and Ear Infirmary for nearly 20 years and Associate Clinical Professor of Ophthalmology at Harvard Medical School. He founded the Glaucoma Consultation Service at Massachusetts Eye and Ear Infirmary. Chandler travelled widely, lecturing in the United States and abroad. He was author of over 70 articles, over half of which were on glaucoma. He was especially proud of his influence on the diagnosis and treatment of pupillary block and malignant glaucoma. In 1965 he co-authored with W. Morton Grant, M.D., the glaucoma text *Lectures on Glaucoma*, which has undergone two subsequent editions under the title *Glaucoma*. He gave generously to the Massachusetts Eye and Ear Infirmary where he established funds to support both glaucoma research and resident education. In his honor, in 1986, the endowed Paul A.Chandler Professorship in Ophthalmology was established at Harvard Medical School and at the Massachusetts Eye and Ear Infirmary, at the bequest of a patient of his who had suffered from malignant glaucoma. Chandler was former President of the American Ophthalmological Society and the New England Ophthalmological Society and was former Chairman of the American Board of Ophthalmology. He was a supporter of Hastings College, Harvard Medical School, and the Massachusetts Eye and Ear Infirmary. He served in World War I with the 103rd Field Artillery in France. AJO 1987,103:846-847

Chandran S. (1935-1996) Malaysian Ophthalmologist, Professor of Ophthalmology of the University of Malaya. He graduated from the University of Adelaide in South Australia, and continued postgraduate studies in London (Diploma of Ophthalmology) and at the Royal College of Surgeons England (FRCS). He joined the University of Malaya as a Lecturer in 1967, was promoted to Associate Professor and Head of the Department of Ophthalmology in 1972. He was made the Professor of Ophthalmology of the University in 1982 and worked in this position until retirement in 1990. He served the Ophthalmological Society of the Malaysian Medical Association as the Chairman in 1971. He also served on the Prevention of Blindness Committee of the Malayan Association for the Blind (1967-1974). (SM)

Chang, Bong Leen (1938-) Korean Ophthalmologist, Professor of Ophthalmology at the Seoul National University. He graduated from Seoul National University College of Medicine and received training in Ophthalmology at Seoul National University Hospital. He has completed a fellowship for neuro-ophthalmology and strabismus at the Department of Ophthalmology, University of Iowa. He served as the Chairman of the Department of Ophthalmology of Seoul National University College of Medicine from 1994 to 1998. He also served as the President of the Korean Ophthalmological Society from 1996 to 1998. (Department of Ophthalmology, College of Medicine, Seoul National University, 28 Yeonkun-dong,Chongro-ku, Seoul 135-010, Korea, phone: 82-2-760-2430, Fax: 82-2-741-3187)(SM)

Chia-Nan Jun Chang

Chang, Chiao-Nan John Sr. (1924-1984) Hong Kong Ophthalmologist. He was born in a Christian family in Ning Po, Cheking Province, China. He accepted Christianity in his childhood and remained a devout Christian throughout his life. He graduated from St. John's University Medical School in Shanghai in l952. When he came to Hong Kong, he served in the government as an Eye Specialist from l958 to l963. During that time, he was awarded the Sino-British Scholarship to go to England for advanced study on eye diseases at the Moorfields Eye Hospital. He obtained his D. O. (London), D.O.M.S. (Dublin) and L.R.C.P. & S and L.R.F.P. & S. of Glasgow, Edinburgh all within one year. After he returned to Hong Kong, he started his private practice. He was very successful and was well received by the Hong Kong Community. Dr. Chang was very kind to everyone, young and old. He was very considerate and helpful to the younger ophthalmologists. He was very dedicated to his work and also published many papers in ophthalmological journals in Britain, Australia, Hong Kong and other countries. He was awarded Honorary Fellowship from the Australian Ophthalmological Society. He made sure that he constantly kept up

with the latest surgical techniques, and equipment. In fact, he was one of the first to perform a corneal transplant, ophthalmic micro-surgery and laser in Hong Kong. He was a strong believer of public education and community service, he therefore started the first *Mobile Eye Unit* to provide a screening and refraction service. He also helped founding of the *Hong Kong Eye Bank* and served on its Board for many years. Dr. Chang was a very social person, he enjoyed public speaking. He also enjoyed singing and composed songs and hymns. He therefore was often the Master of Ceremony for many occasions in Ophthalmological Symposiums. He also formed the Hong Kong Ophthalmology Society in order to fasten friendship and exchange of information amongst fellow ophthalmologists. For many years he was active in the Asia Pacific region. He was one of the founding members of the *Asia Pacific Academy of Ophthalmology*, he also served as Secretariat and was Chairman for the APAO meeting in l983 in Hong Kong. Unfortunately, he passed away in l984. The following is a list of some of his achievements: Founding member of APAO, Secretariat for many years (1960), Founder and Chairman of H.K. Ophthalmological Society (1963-1967), Chairman of Medical Board of Hong Kong Baptist Hospital (1966-1967), President of H.K. Baptist Hospital (1967-1969), and Organized the first Mobile Eye Unit in H.K. to provide screening and refraction service to school children and the community, Founder of Eye Bank (1975-1978), and Performed one of the first cornea transplant in Hong Kong, and in l983 he served as the President of the 9th Congress, Asia-Pacific Academy of Ophthalmology. Some examples of his publications are "*Scleral Trephining in the treatment of absolute Glaucoma*, Transactions, First Congress, Asia - Pacific Academy of Ophthalmology, Manila, 1960, PP. 192-196" and "*Canalicular Blockage*" Australian Journal of Ophthalmology, 1972". His son John Chang Jr. is an Ophthalmologist and follows his father's foot steps in Hong Kong.(SM)

Chansue (Kulvanich) Juangchan (*1934) Thai female Ophthalmologist, Instructor in Ophthalmology, Director of the Cornea Service, Chulalongkorn University Hospital. She graduated from the Faculty of Medicine, Chulalongkorn University in 1958 and received her M.D. degree. After completing her residency training in Ophthalmology at Chulalonkorn University Hospital, she extended her studies in New York University, Postgraduate School and Manhattan Eye, Ear and Throat Hospital in 1962 and at the Wilmer Institute of Johns Hopkins University in 1963-1964. She was appointed the Instructor of Chulalongkorn University in 1961 and the Director of the Cornea Service in 1995. She served as the Chairperson of the Department of Ophthalmology (1983-1991), Medical Director, The Thai Red Cross Eye Bank (1989-1994) and the President of the Royal College of Ophthalmologists of Thailand (1996-1998). For her meritorious service to the Asia-Pacific Academy of Ophthalmology, she received the Distinguished Service Award in 1981. (Department of Ophthalmology, Chulalongkorn Hospital Rama IV Road, Bangkok 19500, Thailand; phone: 662-2528290, fax: 662-2528290)(SM)

Chanterie, M. G. de la. A celebrated oculistic quack of the early 19th century. He is said to have sent to the restaurants and coffee-houses in and about Paris the announcement of his various operations, together with a list of the names and addresses of those on whom he had operated successfully. American Encyclopedia of Ophthalmology, Vol.3,p.2005.

Charles, Steve (1942-) American ophthalmologist and biomedical engineer, born in Raleigh, NC.. Charles received his BA in Mechanical Engineering from the University of Oklahoma in 1965. He is a graduate of the University of Miami School of Medicine in 1969. He spent his Residency in Ophthalmology at the Bascom Palmer Eye Institute of Miami, FL. Fellowship -Clinical Associate at the National Eye Institute, National Institute of Health in Bethesda, MD. At the same time, he served as a Retinal Consultant at the National Naval Medical Center, Bethesda, MD. Charles is a Clinical Professor of Ophthalmology at the University of Tennessee, an Adjunct Associate Professor of Biomedical Engineering at the University of Memphis and the University of Tennessee, and an Adjunct Professor of Ophthalmology at Columbia University. Charles authored the textbook "*Vitreous Microsurgery*" published in 1981 of which the third edition appeared in 2001. He has lectured and operated in over 30 countries, and has developed multiple surgical techniques and equipment used in the field of vitreoretinal surgery. He was named to the Paul Cibis Memorial Lecture in 1983, the Edward W.D. Norton Lecture in 1998, and

recipient of the Vitreous Society Founders Medal. Member of The Club Jules Gonin, The Vitreous Society and The Macula Society. Address: Steve Charles, M.D., 6401 Poplar Ave., Suite 190, Memphis, TN 38119-4843. JPW

Charmis. A famous ophthalmologist, who flourished in the early portion of the first century A.D., and concerning whom we know almost nothing. He is said to. have received the equivalent in U. S. currency of $10,000 (1914) for the cure of a single patient. American Encyclopedia of Ophthalmology, Vol.3,p. 2006

Charpentier, Augustin (1852-1916) French physician born in Argenton-sur-Creuze, France. Charpentier received his M.D. in Paris in 1877, where he studied ophthalmology under→Landolt. He became a professor at the University of Nancy in 1879. Charpentier devised a photometer and conducted important studies of the physiology of the retina. He wrote:″*La lumière et les couleurs*″ Paris 1888. Albert

Chase, John (1856-1918) American Professor of Ophthalmology in the University of Colorado. Chase was born in Ann Arbor, Michigan, and graduated from the collegiate department of the University of Michigan in 1879. In 1881 he graduated from the medical department of the same institution and entered upon ophthalmic practice in association with Doctor Eugene Smith of Detroit. He spent some time studying in Paris and London, and settled in Denver in 1885. He acquired a large practice and was active in the organization of the Gross Medical College, one of the medical schools afterwards merged in the Medical Department of the University of Colorado. He wrote little and his teaching was largely clinical.AJO,1:694

Chassaignac, Charles-Marle-Edouard (1805-1879) French surgeon born at Nantes . He studied both at Nantes and at Paris, receiving his medical degree at the latter university in 1835. Success at first came to him very rapidly, later, however, very tardily indeed. In the year in which he graduated he became Associate Professor of the Faculty, with the thesis, *"Quels Sont les Agens de la Circulation, Veineuse,"* etc. Very soon thereafter he was made successively Prosector, Surgeon of the Central Bureau of Hospitals, and Vice-President of the Anatomical Society. In 1868, because of his epoch-making discoveries, he was constituted a Fellow of the Academy of Medicine. The most important discoveries, or inventions, of Chassaignae are: (1)Linear Ecrasement; (2) The Treatment of Wounds by Drainage, and (3) The Treatment of Wounds by Occlusion. The importance of (2) and (3) were much increased by the introduction into surgery of asepsis and antisepsis. The treatment of wounds by drainage had been practised before the time of Chassaignae, but not to any considerable extent or in accordance with any clear and definite principles. Chassaignac´s most important general compositions are:*1.* *Fracture of the Neck of the Femur. Studied Especially from The Viewpoint of Pathological* Anatomy. (1835, graduation thesis.) *2.*_Dissertation on the Texture and the Development of the Organs Engaged in the Circulation of the Blood_. (1836. Thesis in competition for the Professorship of Anatomy.) *3.* _An Appraisal of Orthopedic Apparatuses_. (1841. Thesis in composition, etc.) 4. _Traumatic Lesions of the Skull and of the Parts Contained Within It._ (1842. Thesis in competition etc.) 5. On _the Mucous Membranes_. (1846 Thesis in competition, etc.) 6. _On Tumors of the Vault of the Skull._ (1848. Thesis in competition, etc.) On _the Operations Applicable to Complicated Fractures_. (1850.Thesis in competition, etc.) 8. _On Encysted Tumors of the Abdomen._ (1851. Thesis in competition, etc.) *9.* _A Treatise on Linear Ecrasement._ (Paris, 1856.) 10. _A Practical Treatise, on Surgical Suppuration and Drainage._ (2 Vols., Paris, 1859.) 11. _Lessons on Tracheotomy_. (Paris 1855). His ophthalmologic writings are as follows: *1. A New Procedure for the Employment of Mercurial Inunctions, Combined with Belladonna, in Certain Diseases of the Eye.* (An. d'Oc. Xv, p. 132, 1846.) *2*. On *the Nature and Treatment of Suppuration of the Eye in the Newly Born. (An.* d'Oc. XVI, p. 138.) *3. Employment of Ice in Diseases of the Eye. (An. d'Oc.* XXII, p.167; XXVII, p. 66; XXXVII, p. 185.) *4. Anterior Spintheropia. (An.* d'00. XXVI, p. 3.) *5. Plastic Surgery for Lachrymal Fistula. (An. d'Oc.* XXVIII, p.235. *6. Investigations in Ocular Anesthesia. (An.* d'Oc. XXVIII, p. 236, 1852.) *7. On Membranous Ophthalmia. (An.* d'Oc. XXXIV, p. 38 and XXXV, p. 34,1855 and 1856.) *8.On the Treatment of Incipient Lachrymal Abscess. (An.* d'Oc. XXXIV,'p.

180.) *9. A Case of Amaurosis in a Person 32 Years of Age with Loss of Equilibrium, Ending in Sudden Death.* (An. d'Oc. XXXIV, p. 286.) *10.Influence of Tonsillar Hypertrophy on Diseases of the Eye.* (An. d'Oc. XXXV, p. 103.) *11. Detachment of the Iris from the Crystalline Lens.* (An. d'Oc. XLIV, p. 53.). Chassaignac became renowned in ophthalmology for his liberal use of ice in many affections of the eye, especially in keratitis, hypopion, and the inflammatory troubles which sometimes result from the cataract operation. For the purpose of holding ice to the eye, he invented a sort of mask, retained in its place by a spring about the head. In this mask each of two cup-shaped depressions (corresponding to the two eyes) was filled with a tiny sack, made from the vermiform appendix of the sheep, and stuffed with pounded ice. His treatment of the initial stages of lachrymal obstruction also added somewhat to his reputation. American Encyclopedia of Ophthalmology, Vol.3,p.2024-2026.

Chassaigne, Jean-Eugène *see* **Dufresne de Chassaigne**

Chatard, Pierre (1767-1848) Born at Cape Francois, San Domingo he received both his general and his scientific training in France. Returning to the New World he settled for practice in Baltimore in 1797. He devoted himself especially, but not exclusively, to diseases of the eye, and published a number of articles on ophthalmologic subjects. American Encyclopedia of Ophthalmology, Vol..3,p.2026

Chauche, Jean. Practically nothing at all is known about this man, except that, in 1618, he wrote, by way of competition for a Monspelliensian professorate a thesis entitled *"An Ophthalmia sit Morbus Contagiosus?"* American Encyclopedia of Ophthalmology, Vol..3,p.2026

Chauchius, Johannes, Monspelliensis. →**Chauche, Jean**.

Chaudhry Mohammad Lateef (1935-) Pakistani Ophthalmologist, Professor of Ophthalmology. He received MBBS (Punjab) in 1959, D.O (London) in 1964, F.R.C.S. (Ed) in 1966, F.C.P.S. (Pak) 1979 and F.R.C.Ophth (U.K) in 1985. His professional assignments are, Professor of Ophthalmology Fatima Jinnah Medical College & Visiting Surgeon Sir Ganga Ram Hospital, Lahore (1973 -1995), Assistant Professor of Ophthalmology King Edward Medical College, Lahore (1967 -1973), Ophthalmic Surgeon in different hospitals of U.K. (1959 - 1967). His editorial assignments are writing and reading of more than twenty five Scientific papers in various national and international Ophthalmic conferences, presented paper on Eale's disease in the prestigious Vale Vitreo-retinal conference in 1989 in USA, was asked to present paper on Vitrectomy in Eale's disease in the international conference of Ahmadabad Academy of Ophthalmology in India in 1992, He is on the editorial board of *Asian Journal of Ophthalmology* and *Pakistan Journal of Ophthalmology*. His academic & research assignments: he has been nominated regional coordinator from Pakistan in the research of Eale's disease in 1991, in 1993 was chosen Chairman of organizing committee and organized 3rd SAARC Ophthalmic conference in Lahore, presently President Ophthalmological Society of Pakistan, Editor in Chief *Pakistan Journal of Ophthalmology*, Dean Faculty of Ophthalmology College of Physician and Surgeons of Pakistan, Chief Executive and Consultant Ophthalmologist of Lahore Medicare Institute of Ophthalmology, Professor Emeritus, Department of Ophthalmology Fatima Jinnah Medical College, Lahore and President Vitreo-Retinal Society of Pakistan. He has been participating in international conferences since 1973 about twice a year & was asked to demonstrate surgical skills to eye specialists of the region in Kathmandu, Nepal. Awarded permanent flying surgeon status in the project. He has been the pioneer President of Lahore Ophthalmology Congress which is the annual congress of Ophthalmological Society of Pakistan, is pioneer in laser treatment, Fluorescein Angiography and Vitreo-retinal surgery in Pakistan and has established an advanced Centre at F .J .Medical College Ganga Ram Hospital, been associated with Duke University Durham North Carolina. He has been awarded President of Pakistan Ramzan Ali Syed Gold Medal in 1990, was awarded Bolan Merit A ward for being the best Ophthalmologist of the country, awarded distinguished Ophthalmologist of the region during the 16th A. P. A. 0. congress at Kathmandu, Nepal. His professional services are: Organizing free eye camps

frequently all over the country to extend his services to the poor people, treated more than one million eye patients in his professional career so far. (Address: 13- Ahmed Park, New Garden Town, Lahore. Pakistan. phone: +92-5861000, +92- 5862000. (SM)

Chavasse, Francis Bernard (1889-1941) British ophthalmologist. Educated at Oxford where he took first class honours in Natural Science and obtained all the scholarships of his year in his medical course, and at Liverpool he went straight into the R.A.M.C. after qualification. The war over, attracted by ophthalmology, he prepared himself for his career by an intensive study of physiology and medicine. In his work as Lecturer in Ophthalmology in the University of Liverpool and in his teaching of students, the importance of a thorough knowledge of these subjects in their relation to general diseases was always a favorite theme. He took the M.R.C.P., the D.M. and D.O. of Oxford, went through the usual Moorfields and other appointments and returned to Liverpool, the home of his boyhood. He entered into partnership with Edgar Stevenson, and after the latter's retirement carried on this old established and successful practice. Chavasse was a frequent contributor to the proceedings of the Ophthalmological Society, as well as those of the North of England Society and the Oxford Congress. His papers were marked by originality, and his command of well-chosen phrases with an occasional flash of humour enhanced his interventions in debate. In later years it was the subject of squint which almost exclusively claimed his researches, and to which his main output in literature was devoted. His name will be long remembered for the re-writing of Worth's *Squint*, in which his new ideas on its physiology and pathology have cast a fresh light on the whole subject. Though his methods of expressing himself may have been provocative, the work, like that of its predecessor, may well become a classic. His views on the value of orthoptic training illustrate his fearless attitude in attacking a system which he considered a help to diagnosis rather than to treatment. His own modifications of operations form an interesting part of the book and represent the toil of years he had made himself into an excellent operator. Had he lived, he might, in subsequent editions have simplified its phraseology for the benefit of his less scientific readers. His chapter on the development and pathology of binocular reactions in Ridley and Sorsby's book also shows much originality. BJO 25,458,1941

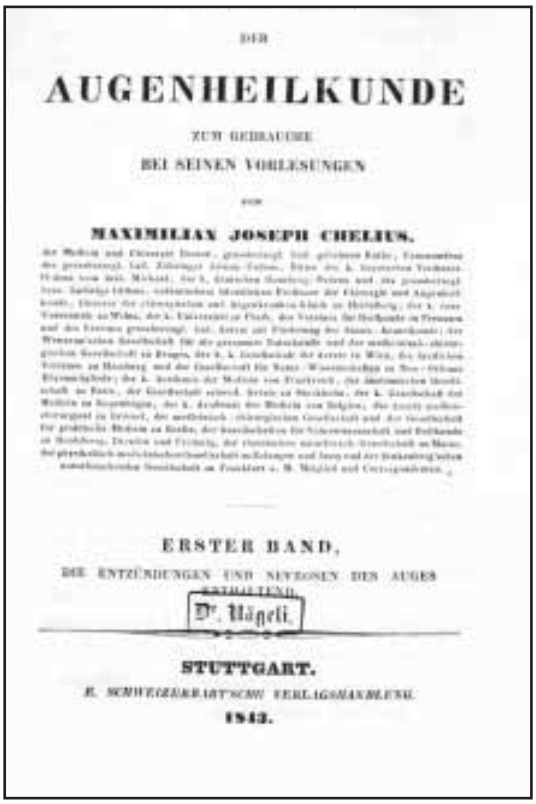
Chavernac, J.-Félix (1841- ?) French ophthalmologist born in Azillanet (Hérault/France). He went 1865 to Paris working in Desmarres´clinic under X. Galezowski. He presented his doctoral thesis in 1866:″*Diagnostic différentiel des inflammations du tissu irido-choroïdien*″ Montpellier 1866. This is the *first* French thesis containing ophthalmoscopic plates. He moved to Aix-en-Provence where he became surgeon to the hospital. Chavernac wrote:″*Notice sur l´Ophtalmoscope de Galezowski*″ 1865; *Etude sur l´étiologie et la nature de l´héméralopie* (Congrès scientifique de France) 1867 ; *Extraction de la cataracte*, Annales d´oc. 1883,89,43-71. *Daviel en Provence*, Aix 1893 in which he describes Daviel´s care for sick people during the plague of 1721, his nomination as Royal Anatomical Demonstrator, his start as ophthalmologist, his visit to Paris in 1746 and his nomination as Royal ophthalmic surgeon. This work is very well documented. (Truc/Pansier 338-339), Albert

Cheatham, William (1852-1919) American ophthalmologist from Kentucky . Born in Taylorsville, Ky., he moved with his parents to Louisville while still a mere boy. In 1873 he received the degree of A. B. from the Kentucky Military Institute at Frankfort. 'Three years later he received the Medical degree at the University of Louisville. Going to New York, he became an intern in the Manhattan Eye and Ear Hospital and at the same time a private pupil of Dr. Cornelius Rea →Agnew, that famous teacher of so many excellent ophthalmologists. Having completed his course under Dr. Agnew, he studied his specialties further in London, Paris, and Vienna. Returning to Louisville, he began at once to practice as ophthalmologist and oto-laryngologist, and soon had an excellent practice. He was promptly given a lectureship at the University, and, soon after, the full professorship. At the time of his death he was Professor Emeritus of Ophthalmology, Rhinology, Otology and Laryngology. He was a member of the American Ophthalmological Society, and a Fellow, of the American College of Surgeons.AJO 1919,2:459

Chee, Caroline Ka Lin (1961-) Consultant Ophthalmologist, National University Hospital and Singapore National Eye Centre, Clinical Teacher, National University of

Singapore. Completed undergraduate medical school (MBBS) at the National University of Singapore in 1985. Began basic ophthalmic training at the National University Hospital in Singapore in 1986. Obtained the Master of Medicine (Ophthalmology) from the National University of Singapore and Fellowships of the Royal College of Surgeons of Edinburgh and the Royal College of Ophthalmologists in 1989. Trained in Addenbrooke's Hospital, Cambridge and in Moorfield's Eye Hospital, London, UK, in the fields of medical and surgical retina in 1992 and 1993. Member of the American Academy of Ophthalmology and Examiner for the MMed (Ophthalmology) and FRCSEd Examinations. Member of Editorial Board, Asia-Pacific Journal of Ophthalmology. Publications include "*Idiopathic Subretmal Neovascular Membranes*, C Chee, Heng L K, P Chew, Ang B C, A S M Lim. Annals of Academy of Medicine Singapore, March 1989, Vol 18 No 2, 226-231"; "*Visualfield loss with capillary non-perfusion in preproliferative and early proliferative diabetic retinopathy*, C Chee, D Flanagan, British Journal of Ophthalmology, 77:726, 1993"; "*Visual recovery following transethmoidal optic nerve decompression in traumatic optic neuropathy*, S Amrith, T Pham, C Chee, T K Chan,, Ophthalmic Surgeiy, Vol 24 No 1, pg 49-52, January 1993; April 1994"; "*Cyclocryotherapy for chronic glaucoma after vitreoretinal surgery*, CKL Chee, M P Snead, J D Scott, Eye 1994 Vol 8 part 4: 414-418. Current interests include the characterization of age-related macular degeneration in the Singapore population including idiopathic polypoidal choroidal vasculopathy and the genetics of retinitis pigmentosa in Singapore. (Dr Caroline Chee: Consultant, Department of Ophthalmology, National University Hospital. Phone: (65) 7725317; Fax: (65)7777161; e-mail: Ophv5@nus.edu.sg) (SM)

Chelius, Franz von (1822-1899) Son of the celebrated surgeon, Maximilian Joseph→Chelius, and himself a surgeon and ophthalmologist of some repute. In 1873 he became professor of surgery at Heidelberg, soon removed to Dresden, and, in 1877, returned to Heidelberg. He was a very skilful operator in nearly every branch of surgery. He it was who introduced Symes's operation to continental Europe. His articles on this subject were *"De Amputatione in Articulo Pedis"* (Heidelberg, 1846) and ' ' *Uber die Amputation am Fussgelenk"* (Heidelberg, 1846). He wrote a number of ophthalmologic articles, the chief of which was *"Uber das Staphylom der Hornhaut"* (Heidelberg, 1847). American Encyclopedia of Ophthalmology, Vol..3,p. 2030, Albert


DER

AUGENHEILKUNDE

ZUM GEBRAUCHE

BEI SEINEN VORLESUNGEN

VON

MAXIMILIAN JOSEPH CHELIUS.

ERSTER BAND,

DIE ENTZÜNDUNGEN UND NEUROSEN DES AUGES

Dr. Nägeli

STUTTGART.

1843.

Chelius, Maximilian Joseph (1794-1876) German surgeon and professor of surgery at the University of Heidelberg. He wrote a textbook of surgery that became a standard in his time: *Handbuch der Chirurgie zum Gebrauche bei seinen Vorlesungen*.(2 vols.) Heidelberg und Leipzig 1839-41. In ophthalmology he authored: "*Ueber die durchsichtige Hornhaut des Auges, ihre Function etc.*" Karlsruhe 1818 "*Handbuch der Augenheilkunde; zum Gebrauche bei seinen Vorlesungen*. Stuttgart 1839-1843, translated into Flemish "*Handboek der oogheelkunde* Leeuwarden 1844-1847; *Zur Lehre von den Staphylomen des Auges*. Heidelberg 1858. Albert

Chen Yao-Zhen see **Chan, Eugene**

Chen, Chen-Wu (1923-) Taiwanese Ophthalmologist, Professor Emeritus of Kaohsiung Medical College. He entered the Faculty of Medicine, Kyoto Imperial University Japan in 1943, but after the end of the World War II he returned home and graduated from the National Taiwan University in 1947. He received his 4-year residency training at the Department of Ophthalmology of the University Hospital. He was elected to WHO fellow to study trachoma and stayed in Tunisia, Morocco and Malta from September to December 1956. He was appointed the Professor (1957-1988) and Chairman of the Department of Ophthalmology (1957-1980), Kaohsiung Medical College. During his tenure, he served as the Director of the Kaohsiung Medical College Hospital (1972-1988). He spent one year for advanced study of Eye Pathology, half a year at the Columbia University Presbyterian Hospital and half a year at the Howe

Laboratory of Harvard University from September 1960 to August 1961. He served as the President of the Ophthalmological Society of the Republic of China (ROC) in 1978-1986. His interest of research covered wide areas of Ophthalmology and he published many scientific papers: some examples are "Hemorrhagic Conjunctivitis due to Enterovirus-70 in China (Taiwan). Ed. ISHII Keizo et al.: Acute Hemorrhagic Conjunctivitis: p.161-166, and Clinical features of CA24v acute Hemorrhagic Conjunctivitis, ibid. P.225-234, University of Tokyo Press, 1989" and " Trabeculectomy with simultaneous topical application of Mitomycin-C in refractory glaucoma. J. Ocular Pharmacol.6: 175-182, 1990". He is a recipient of many Honor Awards, e.g. The most outstanding Professor by Kao-hsiung Medical College Alumni Association of America (1971), Outstanding Social Service Award by National Health Administration (1980), Red Cross Medal (1981) and Award for Outstanding Contribution in Scientific Technology by Minister of Executive Yuan (1992).

Chen, Te-Tsaw (1934-) Taiwanese Ophthalmologist. He graduated from the?National Taiwan University in 1960. He completed residency training in?Ophthalmology during 1961-1965, and worked as attending staff and?instructor at the National Taiwan University Hospital under Prof. Yang Yen-Fei. He extended his studies at the University of Pennsylvania from?1974-1975, and as Clinical Fellow in Retina at the New York Medical?College from 1974-1975 and Clinical Fellow in Glaucoma at the Albany?Medical College from 1975-1976. He served as Attending Staff in New York?Medical College for one year and then came back to Taiwan. He served as?the Founding Chairman and Professor of the Chang-Gung Medical College?from 1978-1987, and also as the Chairman and Professor of the Taipei?Medical College from 1991-1995, Clinical Professor of the Taipei Medical?College from 1996 to present, Director of Te-Tsaw Eye Center from?1996 to present. He is Fellow of the American Academy of Ophthalmology (1997-), Specialist Board Certified, Societas Ophthalmologica Japonica from 1989-1999, and member of the International College of Surgeons (1985-). He has served as the President of the Ophthalmological Society of Taiwan (ROC) since 1997. His research interest has been in Cornea, Refractive surgery and Glaucoma, and he has published more than 63 papers, some examples are, "*Analysis of Intraocular Lens Power Calculation*. Am Intra-ocular Implant Soc J. 11: 268~271, 1985", "*Clinical Results of Pars Plana Vitrectomy in Posterior-Segment Disorders*. Annals of Ophthalmol. 17: 686~693, 1985", "*Six-year Experiences of Radial Keratotomies in Taiwan*. Proceedings of 3rd Korea-Japan Joint Meeting of Ophthalmol. Kyongju. 120-125, 1986", "*Orbital Tumour - A Study of 84 Cases*. Afro-Asian Journal of Ophthalmol. 3: 139-144, 1986 "and "*Clinical Experience with Soft Intraocular Lens Implantation*. J Cataract Refract Surg.13: 50-53, 1987". (TE-TSAW EYE CENTER, No. 2-1, Lane 130, Sec. 3, Min-Sheng East Road, Taipei, Taiwan, phone: 886-2-27181588, fax: 886-2-27176613, e-mail: sjanec@ms35.hinet.net)

Cherryholmes, William Knisely (1861-1919) American ophthalmologist of Hamilton Ohio. He was born at Millersburg, Ohio, received the A.B. at Ohio State University in 1882, and the M.D. at the Bellevue Hospital Medical College in 1884 . For a time he practiced general medicine in partnership with his brother-in-law, Dr. Wise at Millersburg. Later, he was special examiner in the Pension Bureau at Washington, D. C. He settled in Hamilton in 1892, specializing in ophthalmology and oto-laryngology, where he practiced until his death. AJO 1919, 2:704

William Cheselden

Chérubin d´Orléans, Father (1613-1697) whose real name was François Lasserie, was a French Capuchin scholar and instrument maker in the time of Divini and Adams. His works provide views on seventeenth-century optical theory, methods, and instruments. He was the inventor of the binocular telescope. He wrote: "*La dioptrique oculaire*" Paris 1671. (which is considered to be the best digest on seventeenth-century optical instruments and their construction.) and *La vision parfaite* Paris 1677. Albert

Cheselden, William (1688-1752) An English anatomist and ophthalmologist, immortal as the inventor of the artificial pupil. : Born at Burrow, Leicestershire, England, he died at Bath. At the age of 15 he began-the study of medicine in the "house" of the celebrated anatomist, Cowper. At the age of 23 he was teaching anatomy. He became successively

surgeon to St. Thomas´ Hospital, body physician to the Queen and fellow of the Academy of Surgery at Paris.He was one of the trustees of the Barbers-Surgeon's Company, just before the mutual separation of the surgeons and the barbers. His skill as an operator was absolutely marvelous, and the greatest surgeons of the world flocked to London to witness his performances. A French physician returned with the tale that he had actually beheld Cheselden perform the urinary calculus operation, complete, in exactly 54 seconds. Rapidity, of course, was.a matter of immense importance in the days prior to anesthesia. Cheselden's works are: *"The Anatomy of the Human Body"* (London, 1713) *; "Treatise on the High Operation for Stone* (London, 1723) *"Osteography, or Anatomy of the Bones"* (London,1733). Cheselden's most important legacy to all after-coming days is, beyond all question, his artificial pupil. His account of the operation was delivered to the world via *the Philosophical Transactions,* vol. xxxv (for 1727 and 1728), London, 1729. The article, which begins on p. 451, is entitled *"An Explication of the Instruments Used* in a *New Operation on the Eyes* [by Mr. W. M. Cheselden, F. R. S., Surgeon to her Majesty and to St. Thomas Hospital]. American Encyclopedia of Ophthalmology, Vol..3,p.2033.


MANUEL

DES

MYOPES ET DES PRESBYTES,

CHARLES CHEVALIER,

A Paris,

1841

Chevalier, Arthur (1830-1872) French optician, son of Charles Louis (1804-1859) and grandson of Jacques-Louis-Vincent Chevalier(1770-1841). He was involved in the development and fabrication of spectacles. He wrote "*Hygiène de la vue*" Paris 1862 & "*L´art de conserver la vue; ouvrage utile a tous* " Paris 1870. Albert

Chevalier, Charles (1804-1859) French optician and instrument maker; like others in this field at that time, he produced a simple "aquatic" microscope, a solar microscope, triplet lenses, and ground jewel lenses to increase magnification. He wrote "*Notice sur l´usage des chambres obscures et des chambres claires..etc*." Paris 1833; *Des microscopes et de leur usage* Paris 1839, German "*Die Mikroskope und ihr Gebrauch mit einer Abhandlung über die katadioptrischen Linsen versehen von Friedr. Sylv.Kerstein*." Quedlinburg und Leipzig 1843; "*Manuel des myopes et des presbytes, contenant des recherches historiques sur l´origine des lunettes* " Paris 1841; "*Nouvelles Instructions sur l´usage du Daguerrotype*" Paris 1841;"*Mélanges photographiques. Complément des nouvelles instructions sur l´usage du Daguerrotype*" Paris 1844 ; "*Nouveau Manual complet du physicien-preparateur*" 1853; "*Perfectionnement des Lorgnettes Jumelles pour le theatre*."Paris 1853; "*Catalogue des Appareils photographiques..etc..*" 1856; "*Photographie sur papier sec,glaces albuminées etc..*" Paris 1857. "*Methodes photographiques perfectionnées etc.etc*". Paris 1859; (BMC 10) Albert


LE

CONSERVATEUR

de la Vue,

Suivi du Manuel de

l'Ingénieur-Opticien.

Quatrième Edition.

Par l'Ingénieur CHEVALLIER (le Cadet)

Membre de la Société Royale

d'Encouragement des Sciences de Paris &c.&c.

Novembre

1820

Chevallier´s fine title page of the fourth edition of his popular book.

Chevallier, Jean Gabriel Auguste (1778-1848) French optician, well known for his inventions and perfections on his field. He wrote: "*Le conservateur de la Vue, suivi du catalogue général*…etc." Paris 1810, third edition 1815; fourth with a slight altered title in 1820 ; *"Essai sur l´Art de l´Ingenieur en Instruments de physique experimentale en verre* " Paris 1819. Albert

Chevreul, Michel Eugène (1786-1889) French chemist. Chevreul was born at Angers, France, and studied chemistry under Nicolas Vauquelin at the Museum of Natural History, Paris. He was then a lecturer at the Collège Charlemagne and later professor of chemistry at the Gobelins, in charge of the dyeing department. He presented studies of dyeing and a color theory. He wrote: "*De la loi du contraste simultané des couleurs, et de l´assortiment des objets colorés*" Paris 1839, with an English edition "*The principles of harmony and contrast of colours*" London 1854 ; "*Théorie des effets optiques que présentent les etoffes de soie*" Paris 1846. Albert

Chew, Paul Tec Kuan (1960 -) Associate Professor and Consultant Ophthalmologist at the National University Hospital and a Visiting Consultant to the Singapore National Eye Centre and Tan Tock Seng Hospital, Department of Ophthalmology. He is in charge of glaucoma service at these Centres. He trained at the Singapore National University Hospital and he has been heavily involved in Ophthalmic teaching and education in the region as well as running a glaucoma research programme in Singapore. He is currently on the Specialist Training Committee in Ophthalmology of the Postgraduate Medical School and is a member of various committees in the University and Singapore National Eye Centre. He completed his Fellowships at Edinburgh Hospital in Cambridge as well as the Moorfields Eye Hospital in London where he worked in glaucoma. He has been an invited speaker and lecturer for Indonesian Ophthalmological Society, Malaysian Academy, the Philippines Academy of Ophthalmology and the Burmese Ophthalmology Society. He has also been an invited speaker and Chairman at International Meetings in Glaucoma in Europe and Australia and Asia and has demonstrated in Live Surgery in China as well as in Burma. He has run teaching courses in China, India, Europe, Australia and is actively involved in the training of regional glaucoma Fellows, phacoemulsification fellows as well as in the areas of glaucoma research, visual psychophysics, lasers therapy and wound healing. He has published in 34 journals. He has reviewed Journals and written chapters and textbooks of glaucoma. He is currently Chairman of the Singapore Society of Ophthalmology of the Singapore Medical Association. (Dr. PAUL CHEW TEC KUAN, M.B.B.S, M.Med (Ophth), FRCS (Ed), FRCOphth, Associate Professor and Consultant, National University of Singapore and National University Hospital: Phone: (65) 772 5317; Fax: (65) 777 7161; e-mail: Ophchewp@leonis.nus.edu.sg) (SM)

Chiaie, Stefano delle (1794-1859) Italian anatomist at the University of Naples, whose chief investigations were in the areas of human ocular and reproductive anatomy. He authored: ″*Osservazioni anatomiche su l'occhio umano*. Napoli 1838. Albert

Chiba, Yakoh (1942-) Japanese Ophthalmologist, Director of Nagayoshi Eye Clinic and Lecturer at the Department of Ophthalmology, Chiba University. He was born as the 8th generation in an Ophthalmology family; he graduated from Chiba University in 1968 and studied Ophthalmology under Prof. →SUZUKI Yoshitami and Prof. →ISHIKAWA Kiyoshi: he worked as the Assistant Instructor of the Department (1975-1981). He conducted research under the guidance of Assistant Professor →Adachi-Usami, and received his Doctor of Medical Sciences in 1980 (thesis: *Clinical and experimental studies on the visual evoked cortical potentials to checkerboard pattern reversal stimuli*. J. Jpn. Ophthalmol. Soc. 81: 569, 1977). He succeeded to his father's Hospital in 1982. While he has a busy practice, he teaches Ophthalmology at the University as part-time Clinical Professor, and performs a Civil duty as the Education Committee of Mobara City and Vice-President of Chiba Ophthalmologists Association. He classifies historical materials inherited in the family and maintains the Museum of History of Ophthalmology: he is a member of the Japan Society of History of Medicine, besides being the member of Japanese Ophthalmological Society (JOS). He is the co-author of the ″*History of Ophthalmology in Japan*. Centennial publication of the JOS″ and provided many historical material and archives from his Museum. His great grandfather, grandfather and father were all scholarly Ophthalmologists and collected many old rare Medical books over many years, which they donated to Chiba University. In scientific aspects, he works on electrophysiology of the eye and some examples of his publications are ″*Psychophysical and VECP examinations of emmetropia, myopia, hypermetropia and aphakia*. Doc. Opthalmol. Proc. Series, Vol. 13:47, Hague 1977″, ″*Pattern reversal VECPs to stimulation of central quadrant fields*, J. Jpn. Ophthalmol. Soc. 83: 1564, 1979″. He is a member of the International Society for the Clinical Electrophysiology of Vision (ISCEV). (Nagayoshi Eye Clinic, 732 Kaminagayoshi, Mobara, Chiba, 297-0036, Japan; phone:81-475-22-5459, fax: 81-475-25-4050, e-mail: yokoh@mb.infoweb.ne.jp)

Chicoyneau, Michel (? – 1701) Probably born at Bois, France, he became a physician at Montpellier in 1652. He also held a number of chairs in the Monspelliensian University. In extreme old age, he became blind.He is now and then mentioned in connection with the Montpellier school because of a thesis which he wrote in 1659 by way of competition for

a professorate, and which is called "*An Ophtalmice Vinum* It is a very brief affair, of no value. American Encyclopedia of Ophthalmology, Vol..3,p.2056.

Chodin, Andrei (1847-1905) Russian ophthalmologist. He studied at the army medical school in St. Petersburg, Russia , receiving his M.D. 1871. He worked under various ophthalmologists in western Europe and became 1881 director of the Kiev eye clinic. Chodin was the founder, in 1884, of *Vestnik oftalmologii*. He wrote:"*Über die Abhängigkeit der Farbenempfindungen von der Lichtstärke*". Jena 1877. Albert

Choe, Joon-Kiu (1936-) Korean Ophthalmologist, Professor and Chairman of the Department of Ophthalmology of Hanyang University. He graduated from the School of Medicine, Seoul National University in 1963 and received training in Ophthalmology at Seoul Red Cross Hospital. He was appointed as an Associate Professor at Chosun University (1971). In 1973, he was appointed the Chairman of the Department of Ophthalmology, Paik Foundation Hospital (later he became Inje University). In 1974, he was granted the degree of Doctor of Medical Sciences from Seoul National University. In 1978, he was appointed the Professor at Hanyang University and became the Chairman of the Department of Ophthalmology in 1984. During his tenure, he served the Korean Ophthalmological Society as the Secretary General (1978-1980). He delivered a Special Report "*Histopathological and clinical observation of choroidal circulation*" at the Annual Congress of the Korean Ophthalmological Society in 1985. In his professional activities, he has held many important positions: the Director of Scientific Committee of Korean Ophthalmological society (1986—1988), Director of Registration Committee for the 12th Congress of the Asia-Pacific Academy of Ophthalmology (APAO) in Seoul (1989), the Director of Training and Examination Committee (1990-1992), the Chairman, Executive Director of Board (1992-1994), the Chairman of Medical Terminology Committee (1991— present), the Advisor of Korean Ophthalmological Society (1994 present) and the Chairman of "*50 years History of Korean Ophthalmology Society*" publishing Committee (1997-1998). He received a "*Distinguished Service Award*" from 15th APAO in 1995. (Department of Ophthalmology, Hanyang University Hospital, 17, Hangdang-dong, Sungdong-gu, Seoul 132-792, Korea; phone: 82-2-290-8570, Fax. 82-2-291-8517)(SM)

Choi Chae Yoo (1906-1993) Korean Ophthalmologist and Professor of the Severance Medical College. He graduated from the Severance Medical College in 1929 and served as an instructor of the Severance Medical College until 1934. He received his Ph.D. at Kyoto University in 1937 and returned to Korea the following year as Professor of the Severance Medical College. He served as the chairman of the Ophthalmology Department from 1941 to 1950 and acted as the chief director of Severance Hospital in 1945. He was one of the founding members of the Korean Ophthalmologcial Society in 1947, the Director of the Korean Medical Association in 1949, and became the President of the Korean Ophthalmological Society in 1951. He served as the Minister of Health and Social Division during the years of 1952 to 1956 and was the Minister of Education from 1957 to 1960. He was elected Vice-President of Ewha Women's University in 1956 and was on the Trustee Board of Yonsei Foundation since 1967. He received an honorary doctorate degree from Korea University in 1970 and has acted as the Chief Director of the Induk Educational Institution since 1983. Some examples of his many publications are "*Vitamin C in Naphtalene Cataract*. Jpn J. Ophthalmol vol 40(7) 1930.", "*The effect of hormones on the sedimentation velocity of red blood cells after blockage of the reticular endothelial system*. J. of Severance Union Medical College vol 2(1) 1934".(SM)

Choi, Chang Shoo (1915-) Korean Ophthalmologist and Professor of the Department of Ophthalmology, Yonsei University College of Medicine. He graduated from the Severance Medical College in 1941 and completed his residency at Severance Medical College, Department of Ophthalmology during the years 1942 to 1946. He served as the chairman of the Department of Ophthalmology Severance Medical College from 1951 to 1960. He completed his fellowship at the Illinois State University Hospital and at the Will's Eye Hospital during the years of 1954 to 1957. He received his Ph.D. on the thesis"*Experimental Study of Candida Albicans Endophthalmitis*" in 1959 and served as the Chairman, Executive Board of Trustees of the Korean Ophthalmological Society in

1959 and 1963 and later established a private practice in 1960. Some examples of his publications are "*The effects of Chlordiaze poxide on Central Serous Retinopathy*. Kor. J. Ophthalmol. vol. 5(2) 1964.", "*Surgical therapy for Primary Adult Glaucoma*. Kor J Ophthalmol 15(1) 1974." (Department of Ophthalmology, Yonsei University College of Medicine, 134 Shinchon-Dong, Sodaemoon-ku, Seoul, Korea; phone: +82-2-361-8450, fax: +82-2-312-0541)(SM)

Choi, Ouk (1923-) Korean Ophthalmologist, Professor Emeritus of Yonsei University. He graduated from Yonsei University, College of Medicine, Seoul in the year 1948 and studied Ophthalmology at the University, and received Doctor of Medical Sciences in 1963 (thesis: *The studies on irradiation of the posterior ocular segment with radio-active iodine*. Med.Digest 4: 1869, 1962). He studied in 1956-1969 as a resident at the Department of Ophthalmology, University of Lousiville, Northwestern University Medical Center and University of Chicago Clinics,U.S.A., and postgraduate course in Ophthalmology, Harvard Medical School, U.S.A. in the year of 1960-1961. He served as the Professor and Chairman of the Department of Ophthalmology of Yonsei University from 1974 to 1984. He served the Korean Ophthalmological Society as the President (1974-1976), the President of the Korean Microsurgical Society(1982-1983), the President of the Korean Oculoplastic Society(1987-1995), the President of the Korean Contact Lens Study Society (1988-1992) and he is serving as the Councillor of the Korean Ophthalmological Society(1976-) and as the Honorary President of the Korean Oculoplastic Surgery. Some examples of his many publications are "*Saccadic eye movement characteristics to the double step stimuli*. Yonsei Med. J. 16: 65,1975", "*Visual tracking task study of Koreans*. J. Korean Ophthalmol. Soc. 18: 149, 1977" and "*The study for the velocity measurement of the horizontal saccadic eye movement*. J. Korean Ophthalmol. Soc. 19: 281,1978 (phone: +82-2-544-1135)(SM)

Choo, Chai Teck (1957-) Singapore Ophthalmologist, Senior Ophthalmic Surgeon, Oculoplastic Surgeon and Deputy Head of Department A, Singapore National Eye Centre. He also serves as part-time Lecturer, Department of Ophthalmology, National University of Singapore. Dr Choo was awarded the PSC Merit Scholarship (1976-1981) and obtained his FRCS (Edinburgh) in 1987 and FRCOphth (UK) in 1989. He received his Certificate of Fellowship in Oculoplastic Surgery from Sydney Eye Hospital in 1991. From Oct 1990 to Jun 1991, he completed with his HMDP Advance Training Fellowship with the Oculoplastic Division of the Sydney Eye Hospital under Drs Ross Benger and Peter Martin. Dr Choo's special interests are in epiblepharon problems and cosmetic lid surgery. He has spearheaded studies on the understanding and management of these conditions in Oriental patients, including an important microscopic study of oriental lower lid anatomy, in which he is currently engaged. His many publications include "*Correction of Oriental Epiblepharon by Anterior Lamellar Reposition*" (EYE 1996; 10:5, 545-547), "*Correction of Upper and Lower Lid Epiblepharon in Chinese Patients*" (Asia Pacific Journal of Ophthalmology 1998; 10:3, 22-25) and "*Using the Phacoemulsification Crescent Knife in Dacryocystorhinostomy*' (Ophthalmic Surg Lasers, 1998; 29: 343-344). Dr Choo has been invited to speak on "*Treatment of Oriental Upper Lid Cicatricial Entropion by Lamellar Shift*" at the Royal Australia College of Ophthalmologist NSW Meeting (Mar 1996); "*Laser Blepharoplasty*" at the Coherent Ophthalmic Laser Symposium 1 First GCOC in Beijing (Aug 1998); "*Safe Transition to Phacosurgery with Minimum Complication*" at the Asian Fed. of Soc. for Ultrasound in Medicine and Biology in Taipei (Oct 1998) and "*Pearls in Cosmetic Blepharoplasty* at the 1999 APAO Meeting in Manila (Mar 1999). Dr Choo is the Oculoplastic Consultant-in-Charge of Quality Assurance Committee and Member of Medical Board, Singapore National Eye Centre. He is also Honorary Consultant of the Singapore Association of Visually Handicapped. (Dr Choo Chai Teck, Singapore National Eye Centre Pte Ltd, 11 Third Hospital Avenue, Singapore 168751; Phone: (65) 2277255; Fax: (65)2277290; e-mail: snecct@pacific.net.sg) (SM)

Choushi, Kanji (1934-) Japanese Ophthalmologist, Professor Emeritus of Hiroshima University. He graduate from Hiroshima University in 1958, studied Ophthalmology under Prof.→Dodo and received the degree Doctor of Medical Science in 1965(thesis: Experimental study on neutron induced cataracts. Jpn J Ophthalmol 9:123,1965) He was

appointed the Assistant Professor of the Department of Ophthalmology, Hiroshima University in 1965. During 1970-1973 he worked as the Chief of the Eye Clinic of Onomichi General Hospital and had a joint appointment as the Clinical Assistant Professor. He was appointed the Associate Professor in 1973. He was promoted to the Professor and Chairman of the Department of Ophthalmology of Hiroshima University as the successor of Prof. Dodo and worked in this position until retirement in 1996. He studied for one year at the Pacific Medical Center in San Francisco under Dr. Bruce E.→Spivey in 1978. His research interest mainly covered the area of the retina. He *first* introduced Argon Laser Photocaogulator in Japan in 1973. He served the Council (1977-1997) and Executive Council (1989-1993, 1995-1997) of the Japanese Ophthalmological Society. He served as the President of Hiroshima University Hospital (1992-1994) and Dean of the Medical School (1994-1996). From 1996 to now he is serving as the President of Onomichi General Hospital in Hiroshima. He is recipient of the Chugoku Cultural Award in 1996.?(2-33-4 Ohmachi-nishi Asaminami-ku Hiroshima 731-0125, Phone 81-82-877-8472)(SM)

Choyce, D. Peter (1919-) English Ophthalmologist. He graduated from London University in 1939, received the degrees BSc (Physiology Hons) London 1939, MB BS 1943, FRCS England 1947, MRCS England, LRCP London 1942, DOMS England 1949, MS 1962 (Thesis on Intraocular Lenses & Implants), FRCOphth 1988, MAE 1991, MEWI 1996. His past appointments are Consultant Ophthalmic Surgeon, Southend Area Health Authority, Southend-on-Sea, Essex (1954-84), Consultant Ophthalmic Surgeon, Hospital for Tropical Diseases (University College Hospital), London (1953-88), Hunterian Professor, RCS England (1962), Recognised Teacher in Tropical Ophthalmology, London University and Elliot Memorial Lecturer, for 34 years he was consultant ophthalmologist to the Hospital for Tropical Diseases and a Recognised Teacher of Tropical Ophthalmology at the London School of Hygiene and Tropical Medicine in London and became an international authority on the causes of global blindness, ocular leprosy and onchocerciasis (river blindness), Past Secretary, Treasurer and President, International Intraocular Implant Club and Past President United Kingdom Intraocular Implant Society (now the UKISCRS), Past President of the Keratorefractive Society. His present appointments are: Overseas Consultant, Department of Ophthalmology, Henry Ford Hospital, Detroit, USA (1982-), Consultant to London Centre for Refractive Surgery, 21 Devonshire Place, London Wi (1989-). Professor Choyce played a crucial role in the development of modern pseudo-phakic cataract surgery and refractive surgery, which arose therefrom. He was Harold Ridley's Resident at Moorfields Eye Hospital in 1949/50 when the first intraocular lens implants were successfully performed by Mr Ridley. This brave, logical and humanitarian initiative encountered serious opposition from the ultra-conservative ophthalmic establishment of that time. Choyce's own research work into anterior chamber implants (which eliminated the need to combine cataract surgery with its attendant dangers and difficulties with the deliberate insertion of a foreign body to correct the focus) made Ridley's pioneer work that much safer, more effective and more acceptable to the profession. Secondly, he saw the necessity for likeminded colleagues to create their own establishment, which he did in the form of the Intraocular Implant Club (nowadays the International Intraocular Implant Club) in 1966 — the first organisation devoted to the serious study of what has now become one of the most successful and widely practiced procedures in the history of medicine. The anterior chamber implants derived from Strampelli of Rome and perfected by Choyce were, in fact, the first such devices to be given pre-market approval as safe and effective by the United States Food and Drug Administration in 1981. The IIIC is now regarded as the senior body in this important field of medicine. Choyce's other contributions include (a) keratoprosthesis surgery in which he published a number of important papers and (b) the correction of refractive errors with polysulfone corneal inlays, which is not currently practiced but which may have a future. Altogether he published over 120 papers and one book -*Intraocular Lenses and Implants*, published in 1964- which was the first book on this subject to be written and has delivered many papers to many conferences, which have not actually been published. He is an Honorary member of the American Intraocular Implant Society (now ASCRS), Southern African Implant Society, Yugoslav Implant Surgical Society, United Kingdom Implant Society, Mexican Implant Society, Japanese Society of Cataract and

Refractive Surgeons. His prestige lectures are Ridley Lecture of IIIC (1978), Choyce Lecture of UKIIS (1981), Binkhorst Lecture of AJOIS (1981), Paleologus Lecture of Kerato-Refractive Society (1981), Mericos Lecture of Mericos Eye Institute La Jolla, California (1986), Innovators Lecture of ASCRS (1993). His other Awards are Distinguished Achievement Award, American Society Contemporary Ophthalmology ASCRS 40th Anniversary Pioneer Award (1989), Member WHO Consultation Group on Cataract/IOL Surgery in Developing Countries (1990), International Award for Excellence in Ophthalmology from the Royal Hawaiian Eye Foundation (1991), Elected Member of British Academy of Experts and Expert Witness Institute (1991). Address: 9 Drake Road, Westcliff-on-Sea, Essex SSO 8LP. Tel ++44(0)1702 343810, Fax: 01702 342611 and 45 Wimpole Street London WiM 7DG. Tel: 0171 935 3411. E-mail: ProfessorChoyce@AOL.Com (SM)

Christaen, Jean. A peripatetic cataract-pricker of the early 19th century. He was called from Holland to Italy by the Duke of Modena to perform the cataract operation in some Modenese hospital. He has an article in *Annales d'Oculistique* xiii, p. 181-184, 1845. Little else is known about him. American Encyclopedia of Ophthalmology, vol.3, p.2184

Christensen, Leonard (1913-1999) American ophthalmologist of Norwegian origins. He graduated from the University of Oregon Medical School in 1941 and, after an internship at Ancker Hospital in St Paul, Minn, he served in the South Pacific as a navy flight surgeon until the end of World War II. He completed his ophthalmology residency at the University of Oregon and received a Heed fellowship for study with Georgiana Theobald MD, in Chicago, Ill, and Algernon→Reese MD, in New York. He returned and joined the faculty at the University of Oregon Medical School, where he worked until his retirement in 1978. From 1978 until 1989 he was in private practice in Portland, Ore. Christensen established the *first* eye bank in the state of Oregon, served on and was chair of the American Board of Ophthalmology, and published dozens of research articles, book chapters, and symposia. Christensen *first* demonstrated cytomegalovirus in the human eye, did the *first* report that a drug given systemically normalized elevated intraocular pressure without exerting a mechanical effect on the eye, and was the *first* to show that eccentric corneal lesions not amenable to trephine isolation could be excised and the defects successfully repaired by freehand keratoplasty. In his American Ophthalmologic Society thesis, *The Nature of the Cytoid Body*, he presented a significant advancement in understanding by fashioning an elegant histochemical study. He also performed the *first* penetrating keratoplasty in the state of Oregon.He demonstrated that narrow-angle glaucoma and flat anterior chambers required a component of positive posterior vitreous pressure and were not caused simply by an enlarged lens and/or wound leak, which was the prevailing wisdom at the time. He reported the severe corneal complications from prescription topical anesthetics and advocated abolishing the manufacture of ocular anesthetic ointments, products that are no longer commercially available. He described numerous surgical innovations, some of which are still useful today. Arch Ophthal 2000,118:734

Chua, Noel G. (1949-) Filipino Ophthalmologist, Assistant Director, Institute of Ophthalmology, St. Luke's Medical Center. He graduated from University of Santo Tomas, School of Medicine in 1976 with M. D. degree granted. He studied Ophthalmology at the University of Philippines, General Hospital, completed postgraduate course at the Lancaster Basic Course in the U. S. A. in 1982 and extended his study on oculoplastic service under Dr. Joseph Flanagan at Wills Eye Hospital, Philadelphia. He became a Diplomate of the Philippine Board of Ophthalmology in 1984 and has served as Associate Professor of St. Luke's College of Medicine (1996-) and as Assistant Professor of Univ. of the East, Ramon Magsaysay Memorial Medical Center (1990-). He is also the Head of the Cornea and External Disease Service of St. Luke's Medical Center (1995-) and Head of the Department of Ophthalmology, Fort Bonifacio Naval Hospital (1984-). He was the Chairman of the Department of Ophthalmology, University of the East, Ramon Magsaysay Memorial Medical Center (1995-1997). He is the President of the Philippine Academy of Ophthalmology for the year 2000 and was the Chairman of the Organizing Committee of the Annual Convention of the Academy in 1999. He has given many postgraduate courses

and has trained numerous Ophthalmologists. (Office Address: Room 114, Medical Arts Building, 279 E. Rodriguez Sr. Avenue, Quezon City, Philippines. Telephone number: (+63-2) 723-10-73; Fax number: (+63-2) 924-65-50;
email address: dok@imanila.com.ph) (SM)

Church, Benjamin Franklin (1858-1919) American ophthalmologist from California, was formerly dean of the faculty, and professor of ophthalmology and otology in the College of Physicians and Surgeons, Los Angeles. Church received his medical degree at the College of Physicians and Surgeons, Baltimore in 1888. He was once President of the Travis Counts and Kaufman County (Texas) Medical Society and president of the Los Angeles Academy of Medicine. In 1917 he was chairman of the eye, ear, nose and throat section of the Medical Society of the State of California.AJO 3:307

Cibis, Paul Anton (1911-1965) American ophthalmologist. Paul Cibis, a native of Poland, completed its residency in ophthalmology at the Eye Clinic of the University of Heidelberg in 1940 where he remained as chief assistant in ophthalmology until 1949 when he was granted the von Graefe Award by the German Ophthalmological Society. There after he went as a research ophthalmologist to the United States Air Force School of Aviation Medicine in Texas. In 1955 he joined the staff of Washington University, St. Louis, where he was assistant professor of ophthalmology at the time of his death. Paul Cibis became internationally known because of his work on the surgery of retina detachment, a field wherein fits investigative talent and enthusiasm for developing new methods of treatment found full scope in photocoagulation and in the use of liquid silicone. He wrote: *Vitreo-retinal Pathology and Surgery in Retinal Detachment*.(Published posthumously 1965) Cibis was a member of the Gonin Club. .Brit.J.Ophthal.1965,49:608-609; AJO 1965,60:546-548

Cigalini, Paolo (1528-1598), Italian physician born in Como, Italy. He became professor of medicine at the University of Pavia and was the author of "*In aphor. Hippocratis lib. primum et secundum lectiones .De victus ratione pro praeservatione oculi ab obscuritate*." Novocomi 1653. Albert

Cirincione, Giuseppe (1863-1929) Italian ophthalmologist, professor of ophthalmology at Rome University. His boyhood was spent on a farm at Bagheria near Palermo (Sicily). From the beginning of his classical studies he chose the medical profession for his career. He graduated with honors in 1889. At a period when scientific laboratories were meagerly endowed, he sacrificed not only the luxuries but even the necessities of life in order that he might acquire the reagents and animals necessary for study. His great ability was quickly recognized by Armanni, who took the young man under his own guidance in order to instruct him in the technique of structural anatomy and pathology at a time when the more modern instruments had not yet come into existence and sections were still cut by hand. He was especially enthusiastic in his microscopic studies and in research, but more particularly his interest was in the eye and its adnexa. His classical studies on the lacrimal passages date back to this period. Just after receiving his medical degree, he presented to the Neopolitan Academy of Medicine a note claiming for the Italian Anatomist Fontana the discovery of the myelin sheath and cylinder which had been attributed to German workers. The Academy appointed a commission which after investigation found this claim to be perfectly justified. Under the direction of Virchow he made what is said to have been the first comparative study of embryology of the eye, and in 1891 he won the His prize, offered by the Royal Academy of Medicine in Turin. In the His laboratory he met Spalteholz, with whom he collaborated in the latter's famous anatomical atlas. His great admiration for professor His was reciprocal. His had an exaggerated prejudice against having his photograph taken. But he consented to pose for Cirincione, and thus was secured the only portrait ever obtained of the great histologist, and one which is now published in all of the treatises on anatomy. An anecdote will indicate the struggle of these early days. To acquire materials for his research, Cirincione had reduced to the minimum his personal expenses. While awaiting a remittance from his family one day, there came to the laboratory a fresh embryonic specimen which his enthusiasm could not ignore. He bought it with his last penny and went that day without food. That evening he spent among the

monuments of the cemetery, and on one of them he wrote in pencil: ″*Here Giuseppe Cirincione knew the pangs of hunger*.″ He was appointed to the Ophthalmic Clinic of Naples. Under the guidance of the celebrated →De Vincentiis, in 1894 Cirincione received the title of docent (Lecturer). In 1896 he was called to the Italian colony of Tunis as directing oculist of the Colonial Hospital, where he quickly achieved success because of his operative skill. He returned in 1898 to Palermo, where he founded a great institute for the treatment of the eyes which was noted not only for its clinical advantages but for the exceptional opportunities given to students. Among the many scientific works which he accomplished in his private institute may be mentioned those on silicious cataract, on ocular parasites, on palpebral elephantiasis, on retinitis in pregnancy, on resection of the eyeball, on blepharoplastic operations, and on the structure and pathology of the lacrimal passages. In 1900, Cirincione founded ″*La Clinica Oculistica*″, a monthly periodical which, designed in the beginning for practical ophthalmologists, soon became a repository for scientific researches of the first order. He was called from Siena in 1893 to the chair of ophthalmology at Genoa. From Genoa he went to Palermo, where he succeeded →Angelucci. He remained in Palermo to the end of 1908, and introduced a course on trachoma which led to intensive teaching of the subject through the whole of Sicily. In 1908, on the death of →Businelli, he received an unanimous call to the chair of ophthalmology at the University of Rome, the goal of all Italian teachers. The clinic at Rome was in a state of disorganization owing to the long illness of Businelli. The apparatus had been neglected, there were few books, no laboratories, an out-patient clinic reduced to its lowest terms. After a few years, the Minister of Instruction cordially cooperating with Cirincione, the laboratory had been completely supplied with all the modern facilities and everything necessary for the most varied forms of research. The clinical lecture room soon became totally inadequate for its needs. There was room for only fifty students. Three hundred crowded its capacity. With great effort Cirincione succeeded in obtaining a new, splendidly equipped hall, and under his personal supervision it became one of the most beautiful and attractive in Rome. A very rich collection of autochromes of diseases of the eye, and of microscopic preparations, was developed in the course of years through the efforts of Cirincione and his personal assistants. With Cirincione, teaching was almost a passion. It was not unusual for him to stay in his laboratory with students until after midnight, studying the thousands of preparations and clinical photographs which they had developed. He had spent the year 1898 in Paris at the Sorbonne with Tscherning, and he determined to make the laboratory at Rome one of the finest in the world. His clinic was one of the first to introduce the Gullstrand ophthalmoscope. But his most valuable addition the ophthalmic department of the university was a magnificent series of colored drawings of diseases of the eye, which were destined to serve in illustrating the atlas on which he had been working for many years. These plates carried diseases through all their stages, in many instances correlated with the visual fields and other details sometimes leading to cure and sometimes to the final autopsy, with colored microscopic drawings of the pathological findings. He had founded the *Clinica Oculistica.* During the World War, in 1917, it merged with the ″Annali di Ottalmologia″ under the iclusive title of e Clinica Oculistica″ under the inclusive title of *Annali di Ottalmologia e Clinica Oculistica* a periodical which under Cirincione´s editorship was issued in excellent style, admirably printed on fine paper, and freely illustrated with color drawings. (Later that journal was edited under Ovio). Because of his political involvments, whatever the reason, he was suddenly deprived of his professorship in the University to whose upbuilding he had so splendidly contributed. At the age of sixty-four he founded a new clinic. AJO 1930,13:707-709

Claes, Elsa (1898-1976) Belgian ophthalmologist. Claes obtained the M.D. degree at the Brussels University in 1924. As fellow of the Commission for relief in Belgium she was from 1924 to 1925 resident in the Department of ophthalmology at the University of Pennsylvania Postgraduate school of medicine in Philadelphia. Thereafter she returned to Brussels and was successively assistant at St. Jean hospital and adjunct departmental head at the Brugmann and St.Pierre hospitals. In 1939 she obtained at the Brussels University the special doctorate in ophthalmology with a very important thesis (which she realized in Bremer's laboratorium) on *electrophysiology of the central optic pathways*. (Verriest)

Claeys, Georges (1851-1822) Belgian ophthalmologist. Claeys was born in Ghent, obtained at the University of his native town the M.D. degree in 1876 and a special doctorate in 1888. He was adjunct departmental head at the Ghent University from 1894 to 1919. He was an excellent surgeon. The (French) Belgian academy of medicine published in 1887 his work on the *ciliary region of the retina and Zinn's zonule*. He wrote also on *hemianopia* (1878), *calomel therapy* (1885) etc. He was with Evariste →Warlomont, Jean-Pierre→Nuel and Daniel Van→Duyse editor of the *Annales d'Oculistique*. (Verriest)

Claiborne, John Herbert, Jr. (1861-1922) American ophthalmologist. His medical degree was received at the University of Virginia, in 1883. He at no time practiced general medicine, but, settling in New York City, began at once to treat diseases of the eye. He became ophthalmologist to the Flushing Hospital and Dispensary, assistant surgeon to the New Amsterdam Eye and Ear Hospital, clinical instructor in surgery, ophthalmic department of the Cornell University Medical College, and assistant to the chair of ophthalmology in Columbia University. He was a member of the New York Ophthalmological Society, the American Academy of Ophthalmology and Oto-Laryngology and the American Ophthalmological Society. He was line captain, 12th N. Y. in the Spanish-American war. He wrote a good deal, perhaps his best known productions being "*Theory and Practice of the Ophthalmoscope*"Detroit 1888 and "*The Functional Examination of the Eye.*" AJO 5:843-844; Albert

Clark, James Henry (1814-1869) American ophthalmologist born in Livingston, New Jersey. Clark received his M.D. at New York University in 1841. He practiced ophthalmology in Newark, New Jersey. He wrote: "*Sight and hearing, how preserved, and how lost*." New York 1856. Albert

Clarke, Edward Hammond (1820-1877), American ophthalmologist born in Norton, Massachusetts, who received his M.D. at the University of Pennsylvania in 1846. After studies in Europe, he settled in Boston, where he first practiced otology and then was a general practitioner. In 1855 Clarke became professor of materia medica at Harvard Medical School where he taught there for c. twenty years. In ophthalmology he wrote: "*Visions: A study of false sight (pseudopia) with an introduction and memorial sketch by Oliver Wendell Holmes*." Boston 1878. Albert

Clarke, Ernest (1857-1932) British ophthalmologist. He was one of the few writers who seemed to realize that the exact correction of errors of refraction was a very important ophthalmic service, more important than doing operations. His medical degrees came from the University of London, and his first practical work was done in St. Bartholomew's Hospital. His first public paper was based on the administration of anesthetics in that hospital. In 1886 he devoted himself entirely to ophthalmology. In 1885 he had become a member of the Ophthalmological Society of the United Kingdom, and was its Vice-president in 1910. Of thirty clinical and practical communications made to this Society, ten referred to faults of refraction and accommodation. His first book, 1892, was on *Eyestrain, commonly called Asthenopia*. In 1903 he published his book on *The Errors of Accommodation and Refraction of the Eye*; which, within ten years went through four editions. At the International Medical Congress, of 1913, he read a paper on *The Range of Accommodation*. In 1914 he published an octavo of 115 pages in Dutch, a language in which he was proficient. The title was "*Problems in the accommodation and refraction of the eye, a brief review of the work of Donders and the progress made in the last fifty years*". Donders great work was first published in English and has never been reproduced in Dutch. Clarke was actively public spirited, gave important assistance to Downing College, Cambridge, where he had been a student. He served on the Management of the Royal Medical Benevolent Fund; and was an enthusiastic FreeMason. In 1926 he was made a Comrnander of the Royal Victoria Order. His Atlas *The Fundus of the Human Eye – An Illustrated Atlas for the Physician* was published in London in 1931. He was Chairman of the Board of Directors of the British journal of Ophthalmology, from 1926 until his death. Edward Jackson.

Classen, August (1835-1889) German ophthalmologist of Lübeck, Germany. Classen directed an eye clinic in Hamburg and was also involved in the hygiene department of the

town. His doctoral thesis was "*Untersuchungen über die Histologie der Hornhaut*" Rostock 1858; "*Ueber das Schlussverfahren des Sehactes*". Rostock 1863; "*Gesammelte Abhandlungen über physiologische Optik* " Berlin 1868; "*Physiologie des Gesichtsinnes zum ersten Mal begründet auf Kant's Theorie der Erfahrung*" Braunschweig 1876; "*Entwurf einer Psychologie der Licht- und Farbenempfindung*" Jena 1878; "*Wie orientiren wir uns im Raum durch den Gesichtssinn*?" Jena 1879. Albert

Clausius, Rudolf (1822-88) German physicist, born at Köslin in Pomerania, studied at Berlin, where he lectured on natural philosophy. He was afterwards professor at Zurich (1855), at Würzburg (1867), and at Bonn (1869). He was elected a foreign member of the Royal Society (1868), and in 1879 was given its highest honour, the Copley medal. His special work was his contribution to the science of thermodynamics the honor of establishing which on a scientific basis he divides with Helmholtz, Joule, Rankine, and Thomson. In optics and electricity he made valuable discoveries. His great work is his "*Abhandlungen über die mechanische Wärmetheorie"* (1864; trans. by Hirst, 1867), which in its second edition took a more systematic form as vol.1. "*Die mechanische Wärmetheorie"* (new ed. 1887), vol.2."*Die mechanische Behandlung der Electrizität"* (1879), and vol.3. "*Die kinetische Theorie der Gase"* (1889-91). Other books are "*Ueber das Wesen der Wärme"* (1857), and "*Die Potential function und das Potential* (4th ed. 1885). American Encyclopedia of Ophthalmology, vol.3, p.2288.

Clay, Grady Edward (1889-1946) American ophthalmologist. Clay was born in the village of Walnut Grove, Walton County, Georgia. Clay's preparatory education was received in Monroe, Georgia, and Emory College, where he was graduated in 1910. He received his medical degree from the University of Michigan in 1914 and was resident in ophthalmology for the next three years under the able Walter R. Parker. He returned to Georgia in 1917 to, begin private practice and at that time became an instructor in the eye department of Emory University Medical School. He entered the Army in 1918, serving 18 months overseas with the A.E.F in France as ophthalmologist in a base hospital. He returned in 1919 and was discharged with the rank of captain. Upon resuming private practice and his association with the department of ophthalmology of Emory University, he rapidly demonstrated his ability and interest in teaching. Clay was a member, of the Fulton Medical Society, the Atlanta Eye, Ear, Nose, and Throat Society, the American Medical Association, Southern Medical Association, Southeastern Surgical Congress, Academy of Ophthalmology and Otolaryngology, and the American Ophthalmological Society. He served as president and member of the board of trustees of Fulton County Medical Society; chairman of the Ophthalmological Section, Southern Medical Association in 1936; associate editor of the American journal of Ophthalmology; and many other societies and positions. AJO 1946,29:1323-1324

Clegg, John Gray (1869- 1941) British ophthalmologist. Of Manchester parents, he was educated at a famous Manchester school and later at its University where he had a brilliant career as a student. From his early medical days his interest was centered on ophthalmology and after a short period as resident in a general hospital he became attached to the Manchester Royal Eye Hospital and soon became a member of its honorary staff. He held one other major appointment, that of honorary ophthalmic surgeon to the Manchester Royal Infirmary; here he followed in the footsteps of David Little and Hill Griffiths and enhanced the great traditions which they had built up. He resigned this post in 1924 and ceased his active association with the Royal Eye Hospital seven years later. At the British Medical Association meeting in Manchester in 1928, he was elected President of the Ophthalmological section. Scientific meetings claimed a great deal of his time; he was one of a small group who were instrumental in founding the North of England Ophthalmological Society and rarely missed a meeting. The United Kingdom meetings and Oxford found him a regular attendant. He published a large number of papers and travelled both on the continent and in America, where he was particularly well known as a leading British ophthalmologist. BJO 26, 138-139, 1942;Brit med J.1942,1:49 and 129;Lancet 1942,1:125.

Clement, George Colburn (1855-1909) A general surgeon of Haverhill, Mass.,, who paid considerable attention to ophthalmology and was widely known in the special field. He

was born at Milford, Mass., the son of James H. Clement and Clara Erskine Clement, the well known authoress. His early education was received under private tutors. In 1871 he entered Dartmouth College, but, after only one year, proceeded to, New York, where he began the study of medicine under Dr. A. B. Crosby. In 1878, his health having failed, he spent three years travelling in South America and California. He then matriculated at the Harvard Medical School, Boston, at which institution he graduated in 1880. After his graduation he served two years, all told, in the. Boston City Medical Hospital and the Boston Free Hospital for Women. In 1882 he removed to Haverhill, Mass., where he practised until he died, doing both general and ophthalmic surgery. He was a member of numerous medical societies, general and special, and was very active in society work; yet he wrote but little. He was surgeon and ophthalmologist to Hale Hospital at the time of his death. 1909. American Encyclopedia of Ophthalmology, vol..3,p. 2290.

Cleoburey William (1793-1853) British ophthalmologist of London. He studied at St.Bartholomew's Hospital, London, and in 1814 settled in Oxford, where he became surgeon to the university hospital. He wrote: ″*A review of the différent operations performed on the eyes for the restoration of lost and the improvement of imperfect vision*″ London 1826. Albert

Cleomedes. An astronomer, who flourished in the first century of the Christian era, is of especial interest to ophthalmologists because he is the first person in history to mention the refraction of light. Some of the mere facts, or phenomena, of refraction had, of course, been noted by many persons before him. Thus, Aristotle had observed that a staff, part of which is immersed in water, appears to be broken at the place where it enters the liquid. He asked for the reason, but could not render it. Aristophanes, likewise, spoke of the burning-glass, and Euclid described the familiar experiment of placing an object in an empty vessel, so held that the object is just invisible, and then of bringing the object into view by pouring water into the vessel. However, no explanation of these matters was proffered until the time of Cleomedes. The memorable sentence is as follows: ″The visual rays, streaming out of the eyes, can be bent downward by damp and misty air and so strike upon the sun even when this has gone below the horizon.″ For a complete understanding of- the sentence, it is necessary to remind oneself that, at the time of Cleomedes (and long after) it was supposed that the visual rays proceeded from the eye to the object, rather than in the opposite direction-that, in fact, the rays were emanations which, so to speak, the eye sent out to investigate the object. Aristotle had taught differently, but his teaching was unheeded. American Encyclopedia of Ophthalmology, vol..3,p.2291.

Jules-Germain Cloquet

Cloquet, Jules-Germain (1790-1882) A famous, general surgeon and anatomist, discoverer of the *Canal of Cloquet*, born at Paris . He studied the natural sciences at Rouen and medicine at Paris. Receiving at Paris his medical degree in 1817, he became in 1824 Extraordinary, in 1831 Ordinary, Professor of Clinical Surgery. In this position he devoted especial attention to diseases of the eye. Ten years later he retired from active work on account of ill health. Ten years later still (in 1851) he became Consulting Surgeon to the Emperor, and in 1855 Fellow of the Academy of Sciences. In addition to important writings on urinary calculi and acupuncture, he composed the following works, all of which possess considerable ophthalmologic interest. *1. ″Anatomie de I'Homme ou Description,* etc.″ (Paris, 1821-1831, 5 vols.) 2. ″*Mémoire sur la Membrane Pupillaire et sur la Formation du Petit Cercle Artériel de 1'Iris.″* (Paris, 1918.) 3. ″*An in Curanda Oculi Suffusione (Vulgo Cataracta) Lentis Crystallinae, Extractio hujus Depressione Proestantior?″* (Paris, 1824.) The ″*Anatomie*″ above-mentioned contains (p. 361) the first description in history of the hyaloidian canal, now known almost universally as the *Canal of Cloquet*. The description (translated, of course) runs as follows: ″*At the level of the entrance of the optic nerve, the hyaloid membrane is reflected on itself, to form a cylindroid, canal which traverses directly the vitreous from behind forward, and encloses the nutrient artery of the crystalline lens. This canal, which I believe myself to be the first to make known, and which I have named hyaloidian, can be perceived only when the membrane has been rendered slightly opaque, by means of procedures which I have described elsewhere*″. Though the canal itself had never been described before, yet, in 1812, Francisco Martegiani had described a slight dimple, or cone shaped depression in the vitreous body, at the site of the optic papilla,

which depression, therefore, in his honor, is called today the area Martegiani. Martegiani's book, containing this description, was first published in 1814. American Encyclopedia of Ophthalmology, vol..3, p.2298-2299. Albert

Clot-Bey Antoine Barthelemy (1793-1868) French physician born in Grenoble. He became surgeon at the Hôtel-Dieu in Marseilles, earning his MD in 1820 and becoming surgeon in Montpellier in 1823. Invited by the Vize-King of Egypt, he moved to that country. He founded, in a small village, in 1828, a medical school which was about 4 hours away from Cairo. He wrote a great number of books and papers, of which these are a few examples: "*Introduction de la vaccination en Égypte en 1827, organisation du service médico-hygiénique des provinces en 1840*" Paris no date. "*Apercu Général sur l´Egypte*" (2 vols.) Paris 1840 "*De l'ophthalmie, du trychiasis, de l'entropion et de la cataracte observés en Égypte*" Marseille 1864. Albert

Coats, George (1876-1915) Scottish ophthalmologist born in Paisley. He obtained his professional education at the Universities of Glasgow and Vienna. He took the degrees M.B., Ch.B. at Glasgow University in 1897 and graduated Doctor of Medicine 1901. Coats began in 1902 to work at the *Royal London Ophthalmic Hospital (Moorfields)* and was elected member of the Ophthalmological Society. In 1903 he took the diploma of Fellow of the Royal College of Surgeons, England.In 1905 he was appointed pathologist and curator of the museum at Moorfields and four years later assistant surgeon to the Hospital. He was elected 1911 assistant ophthalmic surgeon to St.Mary´s Hospital London leading him to resign the posts of ophthalmic surgeon to the Hospital of Sick Children and of the Great Northern Central Hospital. In 1914 he was appointed full surgeon to Moorfields. Coats devoted special attention to the vascular affections of the retina and to comparative anatomy and pathology of the eye. "Coat´s disease " has its origins in his famous article in *Moorfields Hospital Reports* of November 1908: "*Form of retinal diseases with massive exudation*". He extended his description later,1912, in *Graefe´s Archiv für Ophthalmologie* . Coats was nominated 1910 Hunterian Professor at the Royal College of Surgeons of England taking as subject of his lectures: "Congenital Abnormalitiesof the Eye" . He was awarded the Nettleship Medal and Prize of the Ophthalmological Society in 1912. At the time of his early death he was Secretary of the *Ophthalmological Society*, surgeon to Moorfields and assistant ophthalmic surgeon to St.Mary´s Hospital,London. The Ophthalmoscope, London 1915, p.635-637.[GM 5954].

Coccius, Ernst Adolf (1825-1890) Born in Knauthain, near Leipsic, Germany, he studied at the Universities of Leipsic, Prague and Paris. The chief among his teachers of ophthalmology was →Ritterich and later, after 1852 Theodor→Ruete . After his return from Paris to Leipsic he served for some years as assistant and privat-docent. In 1857 he was made extraordinary, and in 1867 ordinary, professor of ophthalmology-all at the same university. He was one of the earliest workers with the ophthalmoscope, and, in fact, was the *first* to make an important modification of the instrument as invented by von →Helmholtz. He was also the *first* to describe the reflex of the *fovea centralis,* as well as a number of other ophthalmoscopic phenomena. He was also the *first* to describe the filtration scar in glaucoma, as well as newly-formed blood-vessels in the vitreous. He it was who *first* pointed out that the retina could be rendered visible by laying against the cornea a glass slide on which had been placed a drop of water. He discovered detachment of the retina. In addition to all these things, he made important contributions to ocular tonometry, the examination of the fundus with polarized light, to our knowledge of variolous ocular inflammation and of the visual purple, and, indeed, to a number of other important ophthalmologic matters. His chief writings are: "*Ueber die Anwendung des Augen-Spiegels nebst Angabe eines neuen Instrumentes.*" Leipzig 1853; "*Über Glaucom, Entzündung und die Autopsie mit dem Augenspiegel*" Leipzig 1859; "*Der Mechanismus der Accommodation des menschlichen Auges, nach Beobachtungen im Leben dargestellt* etc. " Leipzig 1868; *Die Heilanstalt für arme Augenkranke zu Leipzig etc*.Leiptig 1870; "*De morbis oculi humani, qui e variolis exorti in noscomio ophthalmetrico observati sunt*" ... Leipzig 1871; "*Ophthalmometrie und Spannungsmessung am kranken Auge*". Leipzig 1872. American Encyclopedia of Ophthalmology, vol.4,p.2309-2310. Schett:The Ophthalmoscope,vol.1,p.32-35. Albert.JPW

Coddington, Henry (c.1800-1845) British mathematician and optician. Coddington received an M.A. at Trinity College, Cambridge, in 1823, winning honors in mathematics and classics. His writings are devoted to optics; in addition, he invented a grooved lens used to magnify the anterior ocular tissue, especially of the cornea, now known as the Coddington lens. He wrote: "*An elementary treatise on optics.*" Cambridge 1823, second edition 1825; "*A system of optics.*" Part 1. *A treatise on the reflection and refraction of light* ... Part II *A treatise on the eye and on optical instruments*. (2 vols.) Cambridge 1829-1830; "*A few remarks on the Library question*" 1831; "*The Church Catechism explained*" 1840. Albert

Cogan, David Glendenning (1908-1993) American ophthalmologist. Cogan was born in Fall River, Massachusetts. His career and personal attributes were undoubtedly influenced by his mother, an ophthalmologist, and his father, an Episcopalian minister. Cogan was known to be a pillar of integrity, inquisitive, creative, stimulating and yet, unpretentious-a man of simple needs with a subtle and unexpected sense of humor. While some would have labeled him a "workaholic," he probably would have responded, "How can you call it work when you're doing what you enjoy most?" After completing his Bachelor degree at Dartmouth College (1929), his medical degree at Harvard Medical School (1932), and an internship at the University of Chicago Clinics (1932-1933). Cogan launched his life's work with a residency in ophthalmology at the Massachusetts Eye & Ear Infirmary (1933-1935), followed by establishing a private practice with J. Herbert Waite,(1935-1940). In 1937, Cogan took advantage of a Moseley Traveling Fellowship in Europe, interrupting his practice for one year, while he was based in Basel, Switzerland. In 1940 he became director of the Howe Laboratory of Ophthalmology, Harvard Medical School, where he served until 1973. In 1962 he was appointed chairman of the Department of Ophthalmology at Harvard (1962-1968) and the Henry Willard Williams Professor of Ophthalmology (1962-1973). He was emeritus professor at Harvard from 1974 until his death. Upon retiring from Harvard, he was appointed chief of the Neuro-Ophthalmic Section, National Eye Institute, National Institutes of Health, Bethesda, Maryland (1973-1985), and became scientist emeritus in 1993. Cogan was a member of more than 24 ophthalmologic societies in the United States, Canada, Europe, and Asia. He wrote: *Neurology of the Visual System*, 1966. He had more than 30 extracurricular appointments including the Editorial Board, *Archives of Ophthalmology* (1941-1960); chief-editor, *Archives of Ophthalmology* (1960-1966); Editorial Board, *Investigative Ophthalmology* (1969-1972); editor, *Albrecht Von Graefes Archiv fur Klinische und Experimentelle Ophthalmologie* (1972-1978); managing editor, *Albrecht Von Graefes Archiv fur Klinische und Experimentelle Ophthalmologie* (1979-1981); member, national Advisory Eye Council, National Eye Institute, National Institutes of Health (1969-1972); chairman of the trustees, Association of University Professors of Ophthalmology (1968); Scientific Advisory Panel, Research to Prevent Blindness, Inc. (1975-1993). Cogan received over 26 awards and citations. Among these were the Howe Medal, American Ophthalmological Society (1965); Mackenzie Medal, University of Glasgow, Scotland (1968); Trustees Award for Outstanding Ophthalmologic Achievement, Research to Prevent Blindness, Inc. (1969); and the Gonin Medal, International Council of Ophthalmology (1974), During his career, Dr. Cogan gave more than 50 named lectures including the Jackson Memorial Lecture (1952); Doyne Memorial Lecture (1963); Verhoeff Lecture (1969); Jules Stein Lecture (1973); John McLean Lecture (1987); and the Zimmerman Lecture (1988) to name but a few. For some 35 years Cogan led the Howe Laboratory and its scientists to the pinnacle of investigative ophthalmology, and their contributions were significant and diverse, affecting not only ophthalmology but medicine and neurology as well. AJO 1993,116:784-785.JPW

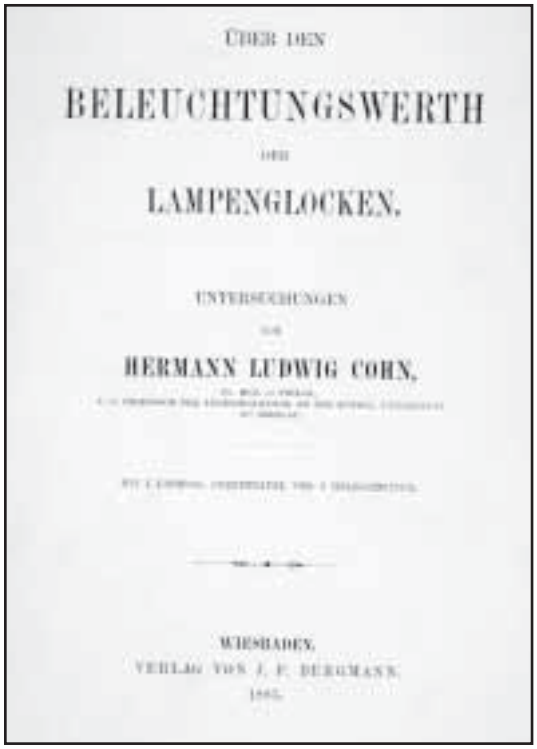
Coggin, David (1843-1913) American ophthalmologist and otologist, especially renowned as the first to suggest the use of the binaural stethoscope as a means of detecting feigned unilateral deafness. He was born at West Hampton, Mass., Losing both of his parents at an early age, he went to live with relatives at Tewksbury, Mass., later at Medford and Lowell in the same state. He never received a degree in the liberal arts and sciences, but, late in life, received the honorary, A.M. from Dartmouth. He began the study of medicine with Dr. Savory, of Lowell, well-known locally. In 1865-66 he attended a single course of

lectures at the Long Island Hospital Medical College, and, later, another at the Harvard Medical School, from which institution he graduated in 1868. He then went to Paris, where he studied anatomy for one year. Returning to America, he practised for a time at St. Louis, Mo. Then, moving back to Massachusetts, he settled at Salem, where he remained until he died. He was a member of numerous medical associations, and especially active in the American Ophthalmological Society.He wrote a large number of medical articles, chiefly on ophthalmology, and otology, nearly all of which were published in the *Boston Medical and Surgical Journal.* Dr. Coggin is said to have performed, in the entire course of his eye and ear practice, more than 32,000 operations. It is only right to add, however, that among these were included all his minor operations, such as the removal of foreign bodies from the cornea, dilating the lachrymal punctum, etc. American Encyclopedia of Ophthalmology, vol.4,p.2315-2316.

Cohen, Cedric Keith (1889-1952) Australian ophthalmologist from Sydney. Cohen was the eldest son of the late John Cohen, a judge of the District Court of New South Wales and, at one time, speaker of the New South Wales Legislative Assembly. Born at Brisbane, he was educated at Sydney Grammar School, and subsequently entered into residence at St. Andrew's College within the University of Sydney, graduating M.B. in 1914 and Ch.M. in 1915. After a period as house-surgeon at the Royal Prince Alfred Hospital he enlisted in the R.A.M.C. when a call came from Britain for medical graduates, and served for four years in France. After the armistice he remained in London and was appointed house surgeon at the Royal Westminster Ophthalmic Hospital, Chandos Street. He later returned to Sydney where he built up a successful practice as an ophthalmic surgeon, and was appointed to the staffs of the Sydney and Lewisham Hospitals. Cohen relinquished his appointment to Lewisham after 17 years but continued his association with Sydney Hospital, where he became senior ophthalmic surgeon, and finally consulting ophthalmic surgeon on his retirement from the active staff in 1950. Cohen was associated with the examination and post-graduate teaching of students in ophthalmology at the University of Sydney, and on the foundation of the Royal Australasian College of Surgeons was elected a fellow. He was president of the Ophthalmological Society of New South Wales in 1932, and he became a foundation member of the Ophthalmological Society of Australia (B.M.A.). BJO 1952,36:592

Hermann Ludwig Cohn

Cohn, Hermann Ludwig (1838-1906) German ophthalmologist, born at Breslau, known especially for his services to ocular hygiene. He at first studied natural science in general, both at Breslau and at Heidelberg, at which institutions the teachers that most influenced him were →Helmholtz, Bunsen, and, Kirchhoff. He received the degree of doctor of philosophy at Breslau, Oct. 20, 1860. He then studied medicine at Breslau and Berlin, receiving his medical degree at the latter institution in 1863. For the next three years he practised ophthalmology in Breslau. In 1868 he became docent, and in 1874 extraordinary professor, at the University of Breslau. Afterwards he was elected full professor in the same institution.His writings, which are almost all devoted to the subject of ocular hygiene, are (mentioning the more important only) as follows: "*Untersuchungen der Augen von 10060 Schulkindern*" Leipzig 1867 *;* "*Schussverletzungen des Auges*" Erlangen 1872; "*Die Hygiene des Auges in den Schulen.,,* Wien & Leipzig 1883 with an English translation by W.P.Turnbull "*The*



UEBER DEN

BELEUCHTUNGSWERTH

DER

LAMPENGLOCKEN.

UNTERSUCHUNGEN

VON

HERMANN LUDWIG COHN.

WIESBADEN.

hygiene of the eye in schools." London 1883; "*Transparente Seh-Proben ... transparent test-types*" Wien c.1890; "*Lehrbuch der Hygiene des Auges*". Wien and Leipzig 1892; "*Ueber Verbreitung und Verhütung der Augeneiterung der Neugeborenen in Deutschland*„ Berlin: Oscar Coblentz, 1896. *Über den Beleuchtungswerth der Lampenglocken* Wiesbaden 1885. Besides these very important books, he wrote at least 97 journal articles, almost all of which are devoted to the subject of ocular hygiene. Cohn died at the age of 68, having been professor of ophthalmology for 32 years. On Sept. 11, 1908, an interesting ceremony took place in the Jewish cemetery at Breslau, namely the dedication of a suitable monument to the memory of this celebrated ophthalmologist. A vast concourse witnessed the ceremony (for, in Germany, a great doctor is a great man), and on the monument appeared these modest, yet very appropriate words, which had been selected by Hermann Cohn himself: "*Augenkrankheiten zu verhüten betrachtete er als seine Lebensaufgabe.*"(He considered avoiding eye-disease as his life-task). American Encyclopedia of Ophthalmology, vol.4,p.2316-2317.[GM 1622 & 5931], Albert

Cohn, Salo (?-?) German physician who wrote " *Uterus und Auge; eine Darstellung der Funktionen und Krankheiten des weiblichen Geschlechtsapparates in ihrem pathogenen Einfluss auf das Sehorgan*" Wiesbaden 1890. Albert

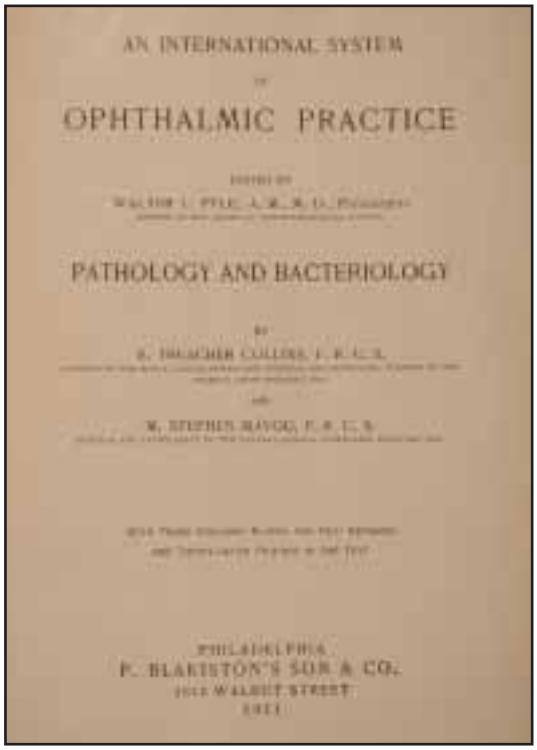
Coindet, Leon Alexandre Hippolyte (1828-1870) Swiss, Geneva physician. He became known through his epidemiologic and military surgical publications : "*Considerations sur les fièvres de l´Algérie*" Paris 1851; "*Le Mexique considéré au point de vue medico-chirurgical*"; "*Préceptes analytiques sur l'héméralopie*". Strasbourg 1858. Albert

Cole Marshall *see* **Marshall, J. Cole**

Coleman, Franklin W. (1838-1917) Canadian born American ophthalmologist of Chicago. Coleman was born in Canada and held British qualifications. He first practiced in Toronto, then in St.John, N.B. and finally went to Chicago in 1855.He wrote extensively upon electricity in eye, ear, nose and throat work, upon which he wrote a book in 1912. He was a member of the *Chicago Ophthalmological Society* and its President for the year 1898.AJO,1:293

Colley, Richard (1894-1964) British, honorary ophthalmic surgeon to the Royal United Hospital Bath. He qualified from the University of Manchester in 1916. After holding house appointments at the Royal Infirmary, Manchester, he was commissioned in the R.A.M.C., and served in Mesopotamia and was mentioned in despatches. After the war he held house appointments at the Hospital for Sick Children, Great Ormond Street, and at the Birmingham and Midland Eye Hospital. He was appointed ophthalmic surgeon to the Royal United Hospital, Bath, in 1923, and to the Bath Eye Infirmary in 1925. He was later, in 1937, appointed to a similar post at the Royal National Hospital for Rheumatic Diseases. From 1942 onwards, he had sole responsibility for the Bath Eye Infirmary and the eye cases in the other Bath hospitals. Colley retired in 1959, but remained a member of the house committees of both the Bath Eye Infirmary, and the Royal United Hospital. Brit. J. Ophthal. 1964, 48:573

Collins, Edward Treacher (1862-1937) British ophthalmologist. Collins illustrated the practical wisdom and devotion of British science to human needs. He was never the professor of a medical school, the towering head of a great surgical clinic, the inventor of a famous instrument, or operation, or the discoverer and teacher of a revolutionary idea in medicine or surgery. He was never knighted like his brother, Sir William. But by his honest, persistent, unselfish work and study he came to be a great leader in the most developed branch of specialized modern medicine and surgery. When his studies in University College and the Middlesex Hospital brought him the conjoint diploma, at the age of twenty-one years, he became a House Surgeon at Moorfields; and at twenty-four years he was appointed Pathologist and Curator of the Museum and Librarian. In 1888 he prepared an index of the first seven volumes of the *Ophthalmic Review*. The number of specimens and drawings of the fundus in the museum had been largely increased under C. Bader, who was an expert in making such things. But specimens prepared by older



methods did not prove permanent. Vernon was curator from 1867 to 1871, and Nettleship who followed him, while serving as assistant to Jonathan Hutchinson, had introduced the preservation of specimens in glycerine jelly. Brailey had succeeded him in 1874, and introduced courses of instruction on the practical pathology of the eye. As pathologist, Collins turned his chief attention and devoted most of his time to histopathology of the eye, and came to be recognized as an authority on that subject. He made his facilities fully available to his colleagues, and from that time the Transactions of the Ophthalmological Society of the United Kingdom showed the influence of his work. Among the many papers, discussions and addresses he contributed to the Society from 1885 to 1930 inclusive, 150 of them have referred to points in histology or pathology; many of these being case reports in which he contributed the facts of the pathology in a case, of which the clinical history was given by another. His Hunterian Lectures formed the basis of his book on *Researches into the anatomy and pathology of the eye*, published in 1896. His book, written with Walter L. Pyle, & Stephen Mayou: *An International System of Ophthalmic Practice: Pathology and Bacteriology of the Eye* 1911, received a second edition 1925. When Collins became connected with the "Moorfields Hospital", Bowman, Critchett and Jonathan Hutchinson had retired. But of the surgeons still on the staff, all but Nettleship and Marcus Gunn, had held positions in general surgery in other hospitals. After that time those elected to the full staff had generally committed themselves to ophthalmic practice exclusively, and after Collins election in 1895 those who followed were nearly all similarly committed. He lived through the period of reorganization of surgery and medicine upon the basis of specialization in practice, at least for all large cities and the populations having immediate access to medical centers. In America, Collins is especially remembered for his visits to the western continent. In 1908 he attended the meeting of the American Medical Association in Chicago, and delivered before the Section of Ophthalmology an address on "*Developmental deformities of the crystalline lens*". In 1922 Treacher Collins attended the International Congress of Ophthalmology at Washington, served as Vice-president, and gave a most important address on "*Hereditary ocular degenerations-Ophthalmic abiotrophies*"; and contributed largely to the success of the Congress. He also presented an invitation to hold another International Congress in 1925 at London. This was supported by Professor →Gallemaerts of Belgium, Professor →Gullstrand of Sweden, and eminent ophthalmologists of Great Britain, and approved by the meeting. When the time came, it was found wise only to attempt a meeting of English-speaking Ophthalmological Societies at London, over which Collins presided gracefully and efficiently. But out of that meeting developed the organization that resulted in the formal resumption of the series of International Ophthalmological Congresses, in 1929 at Amsterdam and The Hague. That meeting was successfully held under the rules drawn up in 1927, by the Committee of which Collins was Chairman. When time permits a final estimate of Collins work in the development of ophthalmology, it may appear that his most important contribution has been in calling attention to the evolution of the eye and related organs concerned in vision, and to the occurrence and relations of their congenital defects and inherited diseases. In 1887 he published a paper and reported a case of anophthalmos, in 1891 a case of aniridia and glaucoma, and in 1904 congenital opacities of the cornea in brother and sister. In addition to the above and the two addresses in America, his Bowman Lecture in 1921 was devoted to the "*Changes in the visual organs correlated with arboreal life and the erect posture*" and published under the title *Arboreal Life And The Evolution Of The Human Eye* Philadelphia: Lea & Febiger 1922. The Bowman Lectures since Sir John Herbert Parsons, 1925, and Elliot Smith, 1928, and the Presidential Address by Leslie Paton (1930) have extended the applications of the theory of evolution to the visual functions, along lines such as were pursued by Collins. He also wrote: "*The History and Traditions of the Moorfields Eye Hospital*" London 1929 , of which a second volume was written 46 years later by Frank W.Law: "*The History and Traditions….being a continuation of Treacher Collins´History of the first hundred years*", London 1975. From his pen came also *In the Kingdom of the Shah*, London 1896. AJO 1932,16:256-260. Albert. JPW

Collins, William (Sir William) Job (1859-1946) British ophthalmologist. He was the eldest son of Dr. W. J . Collins, a London doctor, and the elder brother of E.Treacher→Collins. Both brothers were educated at University College School and had among other contemporaries Mr. Percy Flemming and Ernest Clarke. Sir William´s academic career was a distinguished one, both at School and at the University of London. He went to St. Bartholomew's Hospital for his medical training and graduated M.D. London in 1882, M.S. in 1885 and took the F.R.C.S.Eng. a year previously. He maintained his interest in the University all his life and was at times a member of the Senate and Vice Chancellor. Sir William Collins was ophthalmic surgeon to the Temperance Hospital and at one time Surgeon to the Royal Eye Hospital. He joined the Ophthalmological Society of the United Kingdom in 1886, but never held office. His outside interests were so many and varied that he did not often attend the Society's meetings. In this there was a marked contrast between the brothers, for Treacher Collins hardly ever missed a meeting and apart from his work had few outside interests. Thus, it is not as an ophthalmologist that Sir William will be remembered, but for his work on the L.C.C. and as member of Parliament. How few to-day remember that London largely owes its ambulance service to his untiring efforts. District Nursing was another concern in which he took great interest and the Chadwick Trust. Collins wrote: *Specificity and Evolution*, London 1884, 2nd ed.1890,3rd ed 1920; *Cataract*, London 1897,2nd ed 1906; *The Man versus the Microbe*, Redhill 1903, 2nd ed 1929; *Physic and Metaphysic* London 1905;*The Aetiology of European Conflagration* 1915; *Gunshot Wounds of the Eye*, 1917; *Sir Samuel Romilly´s Life and Work*, London 1908; *The Ethics and Law of Drug and Alcohol Addiction*, London 1916; BJO 1947,31:126-127. Lancet 1946,2:963 and 1947,1:46; Brit med J 191946,2:96 and 1947,1::120;LFRCS 1930-1951:163-166;JPW

Colombier, Jean (1736-1789) born in Toul, France, trained at the military hospital in Metz and thereafter practiced as a military surgeon in the French army. Colombier was among the first to prefer extracting to couching or dépression. He wrote following treatise: "*Dissertatio nova de suffilsione seu cataracta; oculi anatome & mecanismo locupletata*." Amsterdam 1765. Albert

Côme, Frère see **Baseilhac, Jean**.

Compérat Alfred (1811- ?) French ophthalmologist of Paris. He received his M.D. in 1836 and became late ophthalmologist. He wrote: "*Réflexions pratiques sur l'emploi des poudres dans le traitement des maladies des yeux*" Paris 1839 ; "*De la luxation du cristallin normal dans la chambre antérieure de l'oeil et son traitement*." Paris 1852. Albert

Connell, Edward Joseph (1876-1920) American ophthalmologist and otolaryngologist of New York City. Born in New York City, he received his medical degree at Cornell University Medical College, in 1899, and practised as ophthalmologist in New York City from that time till his death. He was assistant otologist to the Lincoln Hospital ' assistant ophthalmic and aural surgeon at the Fordham University Dispensary.AJO 1920,3:631

Conner, William C. (1907-1992) American, co-founder of Alcon Laboratories, Inc., of Fort Worth, Texas, and prominent businessman and ophthalmic philanthropist. Conner was born in Hamilton, Texas. He completed studies at the Danforth College of Pharmacy in 1928. He attended the advanced management program of Harvard Business School in 1936. He worked as a pharmacist, store manager, and general manager for a retail drug chain and then began detailing pharmaceuticals in the Fort Worth-Dallas area. In 1945, Conner and the late Robert Alexander formed the Alcon Prescription Laboratory that subsequently specialized in ocular pharmaceuticals. The company became exceptionally successful, and in 1979 was sold to Nestle, S.A., of Switzerland. The Research Center of Alcon Laboratories, Fort Worth, is named after him. Conner donated generously to ophthalmology and was one of' Fort Worth's most respected and beloved philanthropists. He was a member of the National Advisory Eye Council of the National Institutes of Health, trustee of Research to Prevent Blindness, Inc., a director of the Beren's Eye Foundation, the founding chairman of the Advisory Council of the Wilmer

Ophthalmological Institute of Johns Hopkins Medical Institutions, a member of the Advisory Council of the Friends of Eye Research, a director of the Pan-American Association of Ophthalmology, chairman of the Pan-American Ophthalmological Foundation, and a director of the National Society to Prevent Blindness. He was also a director of the Texas Society to Prevent Blindness and was a 1981 recipient of the Texas Society People of Vision Award. The American Academy of Ophthalmology presented Mr. Conner with its distinguished Public Service Award in 1983. He was chairman emeritus of the Texas Christian University Board of Trustees and chairman of the Texas State Commission for the Blind.Until his death, Mr. Conner was active in many civic, business, and educational groups.AJO 1992, 113:480

Connor, Leartus (1843- 1911) American Ophthalmologist. He received his preliminary training at Wallkil Academy, Middletown, N.Y., and afterwards received from Williams College the degree of A. B. in 1865 and that of A. M. in 1868. For the next two years he was principal assistant in the Mexico Academy, at Mexico, Oswego County, New York. He then turned his attention to medicine. He spent one year in the Medical Department of the University of Michigan, then two years in the College of Physicians and Surgeons of the City of New York. From the latter institution he received his degree in 1870. While in New York his interest in ophthalmology and otology was, awakened by Dr. C. R. →Agnew and Dr. Hermann →Knapp. After a brief period of practice in Brooklyn, N. Y., and another at Seersville, in the same state, he removed to Detroit, Mich., in Feb.,1871. At first he practised general medicine and surgery, as well as ophthalmology and otology. In 1878, however, so large had become his practice in these specialties that he abandoned the general field altogether. Dr. Connor was a remarkably active man as a teacher, editor, society member and ophthalmologist. From 1871 till about the time of his death, he edited a medical journal which was published in Detroit and which was known, successively, as *"The Detroit Review of Medicine and Pharmacy,"*; *"The Detroit Medical Journal,"*; *"The Detroit Lancet,"* and, finally, *"The American Lancet."* Dr. Connor was an active member of the Detroit Academy of Medicine; the Wayne County Medical Society; the Michigan State Medical Society; the American Medical Association; the Michigan Academy of Science; the American Academy of Medicine; the American Association for the Advancement of Science; the Detroit Ophthalmological Club; and the American Academy of Ophthalmology and Oto Laryngology. Dr. Connor was Secretary of the Detroit Academy of Medicine, 1871-72-its President, 1877-78; from 1875 to 1881 Secretary of the Faculty of the Detroit Medical College; from 1876 'to 1883 Secretary of the American Medical College Association. He was also President of the American Academy of Medicine, 1888-89; President of the American Medical Editor's Association, 1883-84; Chairman Eye Section of the American Medical Association, 1891; Vice-President American Medical Association, 1882-83; Trustee of the Journal American Medical Association, 1883-89 and 1892-94. He it was who, beginning in 1888-89, started the movements by which the American Academy of Medicine published its own journal; established annual dues; held its meetings just before those of the American Medical Association; and began the systematic study of "Medical Sociology." From 1882 to.1889 he was a member of the Committee that founded the *Journal of the American Medical Associa*tion and the Board of Trustees thereof after it was begun. Though the youngest member of the Board, yet,-as a practical and experienced journalist, he drew up the plan of the "Journal" conduct, and carried the enterprise forward until it had become a recognized success. From 1892 to 1894 he was a member of the Committee of the American Medical Association on Revision of its Constitution, By-Laws and Code of Ethics. Dr. Connor was also the founder of the "Council of Chemistry and Pharmacy" of the American Medical Association. He was also always urging both in the state and the National organizations, the necessity for undergraduate training in refraction work. His view was that, by a practicable readjustment of the studies in medical colleges, family physicians could, care for all the eye practice now done by opticians and so give their patients the service of educated physicians. He was President of the Michigan State Medical Society, 1902-03; Chairman of its Council, 1902-05. During this period the profession of Michigan was reorganized and placed on a scientific basis that greatly increased its efficiency and power-a triumph of medical sociology. Aside from his papers relating to the communal life of physicians, to the public health, and to general medicine, all of which were numerous

and important, Dr. Connor wrote the following articles of special interest in our field: *"Hot Water in the Management of Eye Diseases;" "Optic Neuritis in Its Relations to Cerebral Tumor;" "Some Features of Strabismus;" "The Technique of Tenotomy of the Ocular Muscle;" "Strabismus as* a Symptom;*" Its Causes and Practical Management;" "The Causes of Glaucoma;" "Diseases of the Lachrymal Passages; Their Causes* and Management;*" "Some Sources of Failure in Treating Lachrymal Obstruction;" "The Giant Magnet in Ophthalmic Surgery;" "Does Opacity of Incipient Cataract Ever Regain Transparency?" "What Contribution has Vibratory Massage Made to Ophthalmology?"* American Encyclopedia of Ophthalmology, vol.4,p.3178-3182; The Ophthalmoscope, 1911,p.465

Conradi, Johann Michael (?-1742) German teacher at the gymnasium of Coburg. He wrote a treatise on optics, containing descriptions of optical instruments, which were, according to Conradi in his foreword, newly invented: *"Der Dreyfach geartete Sehe-Strahl in einer kurtzen doch deutlichen Anweisung zur Optica oder Sehe-Kunst"* Coburg 1710. Albert

Constantinus Africanus (1018-1085/87?) A celebrated monk, who introduced Arabian science, and especially Arabian medicine, into Europe. Born at Carthage, he travelled very extensively, studied for a long time in the School of the Mosque at Cairo, for a brief period taught in Salerno at the University, and finally retired to the Monastery of Monte Cassino, in Campania (not far from Salerno) where he died in 1085 (1087?). He was a man of enormous influence until the close of the middle ages. Thus, he was called by many mediaeval writers "Orientis et Occidentis Doctor." Berthold of Regensburg, in the 13th century, even went so far as to entitle him "The Inventor of Medicine." He translated (to some extent recasting) into medieval Latin a very large number of works from the Arabic. Among these was a *"Liber de oculis,"* which, though ostensibly a volume of his own composition, was really a translation of various passages from Hunain. Constantinus will always be remembered by ophthalmologists, because of his invention of the word " cataract." This term occurs for the very first time in history in the title of the 27th chapter of the little book, "*De Oculis*," just mentioned. The Arabic term was either "ma" (water) or "al-ma an-nazil fil ain" (the water that runs down into the eye), the Latin was "suffusio," the Greek, "hypochyma.". American Encyclopedia of Ophthalmology, vol.5, p.3268.

Contreras, Francisco (1926-) Peruvian Ophthalmologist, Professor at Cayetano Heredia University. He graduated from San Marcos University in 1952, receiving the degree Doctor in Medicine in 1972 (thesis: *Congenital Anomalies of the Anterior Chamber Angle*). During 1974 to 1985 he worked as Chief of the Department of Ophthalmology at the Santo Toribio Hospital in Lima and from 1985 to 1997 he served as Director of the Peruvian National Eye Institute. He studied Ocular Pathology at the San Francisco Medical Center, University of California in USA under Prof. Michael Hogan from 1964 to 1965. In 1966 he founded the Ophthalmic Pathology Laboratory at the Santo Toribio Hospital. His interest covered Cataracts, Glaucoma, Prevention of Blindness, Low Vision and Ocular Pathology. In 1980 he founded the Eye Bank Pilot Center of the Ministry of Health. He served as Secretary-Treasurer South American Region, 1974-1985; Executive Director, 1985-1991; President Elect, 1991-1993 and President, 1993-1995 of the Pan-American Association of Ophthalmology. Also, he served as President of the National Committee on Prevention of Blindness from 1989 to 1997. From 1981 to 1997 he served as Director of the Collaborative Center for the Prevention of Blindness of the World Health Organization. He is Member of the Peruvian Academy of Medicine and the Peruvian Academy of Surgery. His international activities are extensive: Member of the Advisory Committee to the International Council of Ophthalmology; Vice-President Latin American Region of the International Agency for the Prevention of Blindness; Vice-President for South America of the International Society of Ophthalmic Pathology; Member of the Academia Ophthalmologica Internationalis; Co-Editor of *Highlights of Ophthalmology*, Spanish Edition for Latin America. He is a recipient of many national and international awards: International Agency for the Prevention of Blindness: Award for Lifelong Services to the Prevention of Blindness, Nairobi, Kenya, 1990; The Helen Keller

International Award For outstanding contribution to the alleviation of blindness on a worldwide basis, New York, United Nations, 1991; St. Louis Society for the Blind and Visually Impaired?″Leslie Dana Gold Medal Award″, St. Louis, USA, 1995; International Rotary Foundation Paul Harris Fellowship Award, Peru, 1995; International Agency for the Prevention of Blindness, Honour Award Lifetime of Dedication to the Prevention of Blindness, China, Setiembre, 1999; International Eye Foundation, Certificate of Appreciation For Outstanding Service to further Mission of Preventing Blindness and Restoring Sight throughout the World, Orlando, USA, 1999; American Academy of Ophthalmology, 1999 International Blindness Prevention Award, Orlando, USA, 1999. He is a pioneer of Eye Banks and Ocular Pathology Laboratories in Latin America. He is presently in active practice and the next generation of the family has two Ophthalmologists in active practice too. He has given 108 national lectures and 171 international lectures. He has published 98 national and international papers. Dr. Francisco Contreras, Clinica Ricardo Palma, Piso 10, Av. Javier Prado Este 1038, San Isidro, Lima–Peru. Phone 51 1 224-6593. Fax 51 1 224-1603. E-mail: oftcont@infoweb.com.pe (SM)

Cook, Edwin Harry Leonard (1916-1971) British ophthalmologist. Edwin Cook received his medical education at Liverpool University, graduating in 1940, early in the second world war. After holding resident posts at Liverpool he soon joined the RAFYR. One of his early postings was to 266 Rhodesia Squadron RAF, and his association with this squadron was to remain one of his most cherished memories. He completed his service in India where he developed his interest in ophthalmology. On returning to England he took the DOMS in 1947 and became senior registrar at the Eye, Ear and Throat Infirmary in Liverpool. Five years later he took the Fellowship and became consultant ophthalmic surgeon to the Wigan, Leigh and Wrightlington group of hospitals and later to Bootle General Hospital and the Providence Hospital in St Helens. In 1958 he was also appointed to the staff of the United Liverpool Hospitals in the capacity of consultant ophthalmic surgeon to St Paul's Eye Hospital. Cook was a member of the Faculty of Ophthalmologists and represented his region on the Council of the Faculty. At the time of his death he was the senior consultant ophthalmic surgeon to the Liverpool Regional Hospital Board and was clinical lecturer in ophthalmology to Liverpool University. Brit. med. J. 1971,1:464

Cooper, Bryan Paul Huber James (1931-1975) Australian ophthalmologist. Bryan Paul Cooper was born in Leicester, England. His family emigrated to Australia four years later and settled in Croydon, New South Wales, where his father worked as a carpenter and joiner. Cooper was educated at the Christian Brothers, Lewisham, Sydney, from which he won an exhibition and state bursary to the University of Sydney in 1949. Here he graduated MB, ChB in 1955. After a year as resident medical officer at St Vincent's Hospital he returned to England and held resident ophthalmic posts in Sunderland, at the Birmingham and Midland Eye Hospital and at Moorfields. He obtained the Diploma in Ophthalmology in July 1958 and passed the FRCS examination in 1962. He returned to Australia and practised at Blacktown, Sydney, obtaining the FRACS in 1963. He began to concentrate on neuro-ophthalmology and was a prime mover in the formation of the Australian College of Ophthalmologists, where he was a member of the executive committee and chairman of its New South Wales branch. He was consultant neuro-ophthalmologist to the Prince Henry and Prince of Wales Hospitals, Sydney, and despite the long journey from Blacktown he regularly attended his clinics and was always available for consultation if an emergency arose. His opinion was always based on meticulous examination of the patient and a deep knowledge of the neurological as well as the ophthalmological literature. Med. J. Aust., 1975, 2, 318. He received following titles: MRCS and FRCS 1962; MB, ChB Sydney 1955; DO 1958; FRACS 1963. LFRCSE

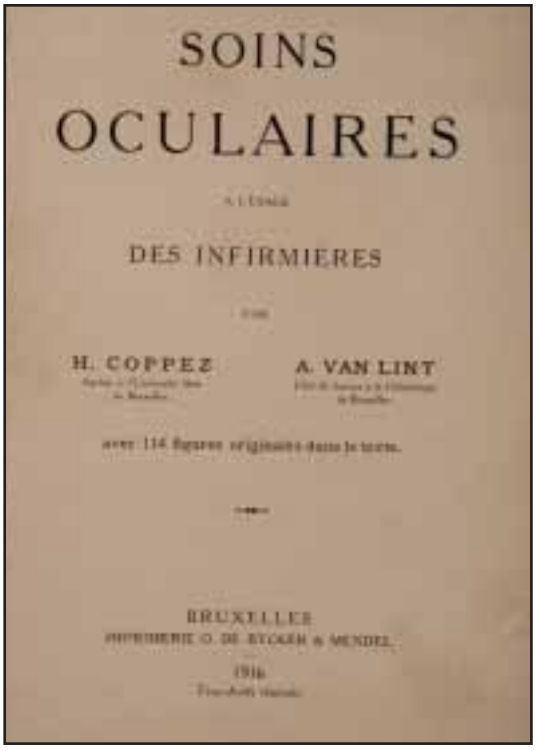
Cooper, John *see* **Burdon-Cooper, John**

Cooper, William (Sir William) White (1816-1886) British ophthalmologist, born in Wiltshire, England. Cooper was trained at St. Bartholomew's Hospital, London, and afterwards became associated with John→Dalrymple. He became one of the original staff of the North London Ophthalmic Institution and became in 1843, ophthalmic surgeon to

St. Mary's Hospital, Paddington. In 1859, Cooper was appointed surgeon-oculist to Queen Victoria. He wrote:"An introductory lecture: delivered at the North London Ophthalmic Institution" London 1843; "*Practical remarks on near sight, aged sight, and impaired vision*" London 1847 (2nd.edition London 1853); "*On wounds and injuries of the eye*." London 1859. Albert

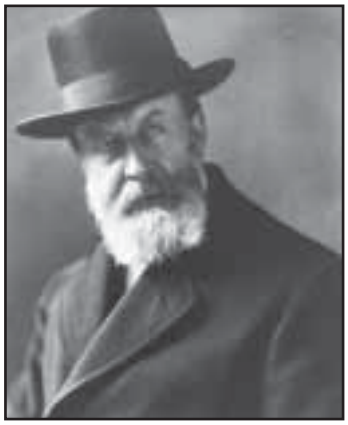
Copeland Jack C. (1900-1973) American ophthalmologist.A personal friend and confidant of scores of physicians and opticians, Jack Copeland will be remembered for his lectures on streak retinoscopy and ophthalmic optics. He was elected an honorary member of the American Academy of Ophthalmology in 1951 in recognition of his contribution to Ophthalmology. In 1953, he received the Beverly Myers-Nelson Achievement Award. Other honors were accorded him from the Mexican Society of Ophthalmology, Guadalajara Society of Ophthalmology, University of Mexico, and the Contact Lens Society. He was elected to honorary memberships in the Central Illinois Society of Ophthalmology, the Milwaukee Ophthalmic Society, the Mexican Society of Ophthalmology, the Las Vegas Academy of Ophthalmology, and the American Academy of Optometry. Jack Copeland was an authority in the fields of ophthalmic optics and optical engineering. He was born in Omaha, Nebraska. In 1922, he received a degree in optometry from the Northern Illinois College of Optometry and later received an honorary degree from the Chicago College of Optometry. In 1927, he joined the Bausch and Lomb Optical Company as technical consultant in ophthalmic optics after introducing streak retinoscopy in the United States (see his *A simplified Method of Streak Retinoscopy*, Copeland Refractoscope Company 1936). A holder of over 35 patents, he was the author of numerous articles on refraction, retinoscopic techniques, and ophthalmic optics, and was highly regarded as a lecturer on these topics. He was editor of the monthly *Optical Developments* from 1931 to 1956. In 1965, Mr. Copeland joined the department of ophthalmology of Marquette University School of Medicine (now the Medical College of Wisconsin), in Milwaukee, where he became the school's first associate professor of visual optics. He continued to teach there until his death. The Jack C. Copeland Low Vision Clinic and The Jack C. Copeland Rare Book Room of the Medical College of Wisconsin's new Eye Institute have been established to commemorate his love of people and his thirst for knowledge.AJO 1973,76:163-164

Coppez, Henri (1869-1946) Belgian ophthalmologist and Jean-Baptiste Coppez´s only son. He was born in Brussels and died in the same city on August 26, 1946. He obtained his M.D. degree in 1893 at the Brussels University. He specialized in ophthalmology in Vienna with →Fuchs, in Utrecht with →Snellen, and, of course in Brussels with his father, as he was his assistant from 1894 to 1897. In 1897 he obtained the special doctorate with a thesis on the *natural history and the treatment of pseudo-membranous conjonctivitis*. He founded the Institut Coppez in 1913, entered the Brugmann hospital in 1922 and succeeded to Gallemaerts in 1925; however, he reached in 1930 the new age limit of 60 years. Then, he worked in the Institut Coppez and died in 1946, during the preparation of a speech on the scientifical activities of the Belgian Ophthalmological Society for the celebration of its 50th anniversary. He wrote about 200 papers, all in the field of clinical ophthalmology. He also wrote, with A. Van Lint : *Soins Oculaires à l´Usage des Infirmières*, Bruxelles 1916. (Verriest).JPW


SOINS
OCULAIRES
DES INFIRMIERES
H. COPPEZ
A. VAN LINT

Coppez, Jean (1894-1968) Belgian ophthalmologist. Jean Coppez was a son of Henri Coppez and a brother of Léon Coppez. He studied ophthalmology with →Gallemaerts, →Morax and his father. He collaborated with his brother for the 1949 report on the pupil. (Verriest)

Coppez, Jean-Baptiste (1840-1930) Belgian ophthalmologist. Coppez was born in Rongy, a small place in the region of Tournai. He died in Brussels. Seven of his great-uncles have been surgeons in the army of Napoleon. Two of them died during the retreat from Russia. A survivor lived in Saint-Amand-les-Eaux, in France, but not far from Rongy, and



Jean-Baptiste Coppez, founder of the Coppez Clinic in Brussels

impressed love of liberty and medecine to the young Jean-Baptiste. However Jean-Baptiste's father, who was a miller, decided that his first son should become a physician and his second son Jean-Baptiste a priest. He thus entered into the seminar. Dismissed at the age of 13 because of his republican opinions, he had to wait the return of his brother from Leuven; meanwhile, he worked as miller in his father's business. Aged 19 he could finally complete his secondary school and study medicine at the Leuven University, but he was again dismissed because of his republicanism. He obtained his M.D. degree at the Brussels University in 1869. He went to Paris to specialize in ophthalmology under →Desmarres, →Liebreich, de →Wecker, →Meyer, →Sichel, →Giraud-Teulon and →Galezowski. But, during this stay in Paris in the last year of the Second Empire, he also produced himself as wrestler and he sympathized with Jules Vallès, Rochefort and Courbet, the future leaders of the Commune and of the Third Republic. Back in Brussels, he obtained in 1870 the special doctorate with a thesis on the ocular complications of ophthalmic zona. In 1871 he became physician of the public rest home "*Hospice de l´infirmerie*" where in 1873 he opened a department of ophthalmology. This department had so much success that Coppez was allowed from 1876 to teach a free course in ophthalmology and that the department moved in 1881 to the St.Jean hospital. Finally, the Brussels University opened in 1890 a regular course of ophthalmology with Coppez as professor. Because of the 65 years age-limit he had already to retire in 1905. Coppez was an excellent surgeon and most of his publications are devoted to surgical problems such as the description of his well known *blepharostat* (1870), *the elongation of the suborbital nerve as treatment of neuralgia* (1882), *the aspiration of soft cataract* (1885), the *treatment of retinal detachment* (7887) and mainly a report for the French Ophthalmological Society on *surgery of intra-ocular foreign bodies* (1890). He wrote also on jequirity treatment and on neuro-ophthalmology. He was a founder member of the French Ophthalmological Society in 1883. (Verriest).AJO 14,p.167-168; *Hommage au Professeur J.-B. Coppez*, Brussels 1927 (with 4 portraits). JPW

Léon Coppez

Coppez, Léon (1899-1976) Belgian ophthalmologist, son of Henri Coppez and grand-son of Jean-Baptiste Coppez. He obtained his M.D. degree at the Brussels University in 1924. He specialized in ophthalmology mainly under Victor→Morax in Paris (1924-26) but also with Alfred→Vogt in Zurich (1924), Van der→Hoeve in Leiden (1926), →Lindner and →Meller in Vienna (1931), and →Grosz in Budapest (1931). Visits to →Weve in Utrecht (1933) and to →Gonin in Lausanne (1934) prelude to the special doctorate in ophthalmology which he obtained in Brussels in 1934 with a thesis on the *treatment of idiopathic retinal detachment by means of a pyrometric electrode*. (see also *Archives de medecine experimentale*, vol.9, issue 2, 1935).He was assistant in the Department of Ophthalmology from 1932 to 1938 and adjunct departmental head since 1938. After Marcel→Danis' death in 1943 he teached ophthalmology at the Brussels University first clandestinely and from 1944 officially. He reached the age limit in 1959. Among his 127 papers the most important are perhaps those on the treatment of retinal detachment in which he advocated the replacement of Gonin's thermocauterisation by controlled diathermo-coagulation at 80° C., the subject of his 1934 thesis. He also used controlled diathermocoagulation for the treatment of glaucoma and for producing experimental choroiditis. We have to mention his paper with Albert Meyers on *radiography of the lacrymal tract* (1931),another paper on *corneal tattooing with platinum chloride* (1947), his important contribution on *partial lamellar keratoplasty* (1949). He was member of the (French) Belgian Academy of Medicine and its president in 1967. He was president of the 18th International Congress of Ophthalmology in Brussels in 1958. He was for 20 years the treasurer of the Belgian Ophthalmological Society. (Verriest) JPW

Cordes, Frederick Carl (1892-1965) American ophthalmologist. He was a native Californian, born in San Francisco, the son of a Lutheran minister father. In 1918, he became a Doctor of Medicine and in 1921 he was appointed Instructor in Ophthalmology, where after, following a course of study under Ernst →Fuchs in Vienna, he rose rapidly to become Chairman of the Division of Ophthalmology in 1934. Clinical Professor of Ophthalmology in 1936, and as eventually Emeritus Professor. Early in his career, at a time when research was not the popular activity in America that it is today. Dr. Cordes struggled to acquire new knowledge by working after hours and on holidays. This included

much pathology, but his orientation was primarily clinical, and as time went on he became an exceptionally astute observer. Of his many contributions, perhaps the most valuable was his work on the subject of cataract in children on which he wrote a notable monograph based on painstaking observation and analysis. For the American Academy of Ophthalmology and Otolaryngology, Cordes wrote: *Cataract Types: A Manual prepared for the Use of Graduates in Medicine*, 1946.Under the chairmanship of Dr. Cordes, the Department of Ophthalmology of the University of California became an outstanding ophthalmic centre and training-ground for ophthalmologists. Of Dr. Cordes's many talents, his rare gift for inspiring his wealthy patients to support ophthalmology, deserves special mention. When Mrs. Francis I. Proctor offered funds for the establishment of a foundation for eye research in a western university that could guarantee space for its operation, Dr. Cordes promptly secured from one of his patient-friends the money necessary to meet the conditions of Mrs. Proctor's gift and the Proctor Foundation was established at the University of California. With another donation he was able to set up a training programme for foreign ophthalmologists; as a result the Heller Foreign Fellowship programme has contributed to the training of ophthalmologists from Canada, England, Ireland, Austria, Italy, Denmark, Sweden, Venezuela, and Japan. In his long, fruitful life, Dr. Cordes gave many a named lecture, and received many an honour. Among the latter were the Howe Medal of the American Medical Association, the Lucien Howe Medal of the American Ophthalmological Society, and the Gold Medal (Leslie Dana) Award given jointly by the National Society for the Prevention of Blindness and the St. Louis Society for the Blind. Perhaps the honour he prized the most and the one that specially, pleased his former students, was the honorary LL.D. bestowed upon him by his own University in 1962. He had worked long and hard for the University of California, and it was fitting that he was honoured as one of its great alumni.Brit.J.Ophthal.1965,49:384-385; AJO 1965,59:1145-1147;Bibliography:AJO 1959:47,no.5/II .

Cornaz, Charles Auguste Edouard (1825-?) French physician born in Marseilles who spent most of his life in Switzerland, receiving his M.D. at Bern in 1848 with the doctoral thesis "*Des abnormités congénitales des yeux; et de leurs annexes*." Lausanne 1848. From 1855 Cornaz was serving as chief surgeon at the Pourtales Hospital in Neuchâtel. He wrote primarily on congenital anomalies of the eye. Albert

Cornelius, Carl Sebastian (1819-1896) German physician. He wrote "*Die Theorie des Sehens und räumlichen Vorstellens vom physikalischen, physiologischen und psychologischen* " Halle 1861 and "*Zur Theorie des Sehens mit Rücksicht auf die neuesten Arbeiten in diesem Gebiete*..." Halle: H.W. Schmidt, 1864. Albert

Corr, Albert Campbell (1840-1903) American ophthalmologist of central Illinois. He was born in Honey Point Township. Because of the war, he was late in obtaining an education. In 1863-64 he studied at Blackburn University, from which institution he was later graduated in course with the Master's Degree in Arts. In May, 1864, he enlisted in Infantry, and served four months. During this period he received the customary $13.00 per month, at the same time paying a man at home $21.00 per month to look after the crops. Three brothers and two adopted brothers were also in the service, and one of the brothers was killed. After the war, he worked for a time on the farm, then, in Oct., 1865, he entered the Chicago Medical College, from which institution he graduated March 4, 1868. The year he entered the medical college he married Miss Lucinda Hall, an instructor, who continued teaching school nearby that she might look after the interests of the mother and care for- her until the son and husband could return. In deference, also, to Corr's wishes, his wife studied medicine, that she might be still more closely associated with him. She received her medical degree in 1874. Then, for eight and twenty years, she practised her profession with him. During all this period of professional work, the domestic side of life, of these comrades was never in the least neglected. As was ,finally said by one who knew: "Their home life was a truly ideal one,. The tender companionship and mutual helpfulness that like pursuits had developed between them was as unusual as it was beautiful. Seldom do two people enter as fully into each other's, life as did these two and 'their devotion was the delight of all who came under their roof-tree, where high, noble thoughts and aims prevailed. Few men were capable of such living. A gray-

turbaned son of Arabia would have called Dr. Corr 'a brother of girls,' a title purer and sweeter far than any that graced a knight of the round table" Deprived of children of their own, they were always reaching out to help orphans and the homeless, believing that the childless home and the homeless child should be brought together." Albert Corr continued in general practice until obliged to relinquish it by steadily increasing asthma-the result of much exposure along country roads. He had always had some inclination for ophthalmology and otology, so, in 1886, he engaged in graduate study at New York, Baltimore and Chicago. Thereafter he devoted all his time and energies to diseases of the eye, ear, nose and throat. He was also active in medical society work. He was one of the founders and charter members of the Macoupin County Medical Society, which was organized in 1873. For the first ten years -of the existence of this society, he was nearly always the acting secretary. Then, in 1883, being elected president, he wrote for the organization a history of its first ten years of work. During these years he had not missed one single meeting, and he had also contributed far more papers than any other member. Altogether, he was secretary of this society for more than 25 years. He was always ethical in his relations to his professional brethren, and likewise to the public and the state. He was chosen by Gov. Altgeld (Democrat) as one of the delegates to the Pan-American Medical Congress, held at Washington, D. C., in 1893. He was also selected by Gov. Tanner (Republican) as a member of the Illinois State Board of Health. He became the President of the Board, and gave much of his time and energies to the work. In 1896 he was elected President of the Illinois State Medical Society. He was for a time ophthalmic surgeon to Henrietta Hospital, East St.; Louis, and to the Air Line Railroad. He also maintained a small private hospital at his home in Carlinville. Dr. Corr was an excellent operator, and a slow but painstaking and accurate diagnostician. He made a drawing of almost every fundus that he looked at-a fact mentioned here to demonstrate how well the typical, well-trained careful "country" oculist, though deprived of nearly all association with his fellow ophthalmologists, may do his work. Corr invented a lachrymal duct irrigator, which met with considerable acceptance. He also invented an excellent schematic eye. This is said by many to be the best contrivance of its kind. It is of natural size, exhibits the natural motions of the ball, and displays an easy means of measuring the emmetropic, the astigmatic, the hypermetropic, and the myopic globes. Among Dr. Corr's more important writings are:1. *State Medicine and Sanitation* (1890). 2.*Vision; Its Physical Defects and Mode of Correction. For Teachers* (1890). 3. *First Clinic Ever Given in East St. Louis, 111. A Case of Error of Refraction Complicated with Esophoria, Producing Persistent Asthenopia* (July, 1890). 4. *Little Things in Ophthalmology. Three Papers* (1891). 5. *Anomalies in Ophthalmic Practice* (1895). 6. *Medical Aspect of Crime-A Plea for Moral Training* (1896). 7. *Choroiditis and Choroido-Retinitis in Young Persons* (1898). 8. *Specialisms in Medicine; the Relations of the Specialist and General Practitioner* (1899). 9. *Advance in Ophthalmology and Otology* (1899). 10.*Influence of Nasal Diseases Perpetuating Diseases of the Eye; Illustrated* (1899). 11. *Cyclitis* (1899). 12. *A Resumé of Ophthalmology* (1900). 13.*Relations of Ophthalmology and Otology to General Medicine* (July, 1901). 14. *Minor Diseases of Nose and Throat that Hinder Voice Culture* (1901). 15. *Minute and Foreign Bodies Superficially Wounding the Eye* (1901). 16. *Anisometropia: A Case Showing the Necessity of Some Objective Method of Determining Refraction;* Illustrated (1902). American Encyclopedia of Ophthalmology, vol.5, p.3535-3539.

Corr, Lucinda Hall (?-?) American ophthalmologist of central Illinois, wife of Dr. Albert Campbell →Corr. The salient facts of her career have been presented in the sketch of her husband Albert. We may add that she was a daughter of Oliver W. and Deborah Redman Hall, pioneers of Macoupin County. Her professional degree she received from the Northwestern University Woman's Medical School, Chicago, in 1874, and was the first alumna of that institution. She was a member of the Macoupin County Medical Society for more than 40 years continuously. She was a woman of great personal beauty and charm, and of fine conversational ability, as well as a skilful ophthalmologist, and her influence in the community in which she lived was very great, and, in every instance, on the side of right. Her devotion to her sickly husband, whose able assistant in his practice she was until his death, was no less remarkable, and a matter of common note. American Encyclopedia of Ophthalmology, vol.5, p.3540-3541.

Placido da Costa

Costa, Plácido da (1848 - 1916) Portuguese ophthalmologist, Professor of Ophthalmology at the University of Porto, Portugal. He is the inventor of the Placido disc for corneal examination. He named it kératoskopie and published it in 1882 (*Zentralblatt für praktische Augenheilkunde*, 6: 30, 1882). The original Placido disc and its modification have been used to detect irregularity of the corneal surface for a long time. Only since 1970s, a combination with a computer technique with Placido concentric rings allows analysis of the corneal surface configuration and has become a powerful tool for corneal studies. (SM)

Cotlier, Edward (1939-) American ophthalmologist, Consultant Ophthalmologist at the New York State institute for Basic Research in Developmental Disabilities, Staten Island, New York. The last 10 years he has been Visiting Professor and Director of the Eye Genetic Basic Science Course at the University of Puerto Rico, San Juan, PR. He founded and for the last 20 years he has been editor of the Current Research section of *Survey of Ophthalmology*. Trained in Ophthalmology and in Molecular Biochemistry at Washington University, in St. Louis, he was a professor there and at the University of Illinois (1970-76), Yale University (1977-83) and at Cornell University (1983-1985). For his original clinical and laboratory research he was honored by Yale University in 1978 with a Master of Science degree while chief of the Division of Ocular Genetics and Cataract Research at Yale University Medical School. From 1986-1990 he was Chief of Ophthalmology at the King Khalid University Hospital, Riyadh, Saudi Arabia and trained 40 ophthalmologists there. Cotlier served for 12 years in National Institutes of Health and National Eye Institute Study Sections and Intramural NIH Boards in Washington, D.C., reviewing more than 800 research grants. He was on the scientific advisory board of the Retinitis Pigmentosa Foundation from 1978 to 1988. Dr. Cotlier has published 120 articles on clinical genetics and biochemistry of the eye describing a variety of identifying clinical signs and new genetic disorders. He was co-editor [with Jules Francois] and later Chief Editor of *Ophthalmic Pediatrics and Genetics*, the only journal devoted exclusively to genetic eye diseases. Dr. Cotlier organized three Symposia dealing with eye malformations in children sponsored by the March of Dimes—Birth Defects Foundation, and edited 3 books on the subject. He has been quest speaker at more than 100 departments of ophthalmology, genetics and biochemistry, and at medical societies worldwide. He received the Waardenburg Award [in the Netherlands] for research in genetics in ophthalmology in 1984. He is an honorary member of the Argentina Pediatric Ophthalmology Society, He organized the first conference on Visual Disabilities in Children at the United Nations in 1992, and was the recipient of the 50th Anniversary United Nations Honor Award in 1995- In 1996 he is the quest of honor of the Japan Pediatric Ophthalmological Society. Address: Edward Cotlier, M.D., 372 Fifth Avenue, New York, N.Y.10018,USA. Phone (212) 947-7023, fax (212)-279-0798
email: edcotlier@aol.com

Coulter, Robert James (? – 1944) Irish ophthalmologist born and educated at Dundalk. From Dundalk, Coulter continued his education at Trinity College, Dublin, and took his B.A., M.B., B.Ch. and B.A.O. of the University of Dublin in 1892. In 1899 he became a Fellow of the Irish Royal College of Surgeons. Coulter was House Surgeon to Sir Henry Rosborough →Swanzy, in Dublin, and then to Richardson →Cross at Bristol. These posts under such distinguished surgeons gave him the opportunity of acquiring a sound grounding of ophthalmology. In 1898 he became a member of the *Ophthalmological Society of the United Kingdom*, and was an original member of the *Oxford Congress*. He also was Treasurer and President of the *South Western Ophthalmological Society*. Coulter was elected Ophthalmic Surgeon to the Royal Gwent Hospital in 1901 and held this post till 1932 retiring on the age limit. He did not write much , but contributed an excellent article on "*Injuries to the Eye*" in Greer´s *Industrial Diseases and Accidents*. Coulter gave the *Montgomery Lecture* in 1928, gained the Oxford Diploma in Ophthalmology in 1911 and was a member of the *Société Française d´Ophtalmologie*.BJO 1944 ; 28 :315-316.

Couper, John (1835-1918) British London ophthalmologist, specially renowned as diagnostician and teacher, born in Scotland. He received the M.D. at Glasgow in 1856, and the F.R.C.S. England (examen), in 1861. Settling down in London, he was, for a time,

assistant surgeon and demonstrator of anatomy at the London Hospital. From 1869 to 1889 he was surgeon in the same institution, as well as lecturer on surgery. He was also, for a number of years, surgeon, afterwards consulting surgeon to the Royal London Ophthalmic Hospital and to the Scottish Hospital. He was a Fellow of the Hunterian and Harveian Societies. Among his more important contributions are: "*The Diagnosis of Astigmatism by the Ophthalmoscope*" (B. M. A. Newcastle 90); and "*A New Magazine Ophthalmoscope*" (Transact Ophthalm. Societies U.K 1883) Celebrated ophthalmologist as he was, Dr. Couper at no time in his life wholly gave up general surgery. AJO 1919,2:163-165

Court, Josiah (Sir Josiah) (1841-1938) British ophthalmologist from Staveley, Chesterfield, UK. He was educated at Warwick Grammar School and Guy's Hospital; qualifying M.R.C.S.Eng. in 1863. He took the L.R.C.P.Lond. in the year following and after holding house office at Guy's, he went into practice in Derbyshire. He was a *pioneer* in cases of miners' nystagmus and was largely responsible for calling public attention to poor lighting in the mines as a cause. As far back as 1891 he was the author of a " *Report of the examination of the eyes of coal-miners in Derbyshire, Durham, Forest of Dean and Belgiurn*." For many years he was consulting surgeon fqr compensation cases to the Derbyshire Miners' Union and surgeon to the Great Central Railway works at Staveley. BJO 1938,22:253

Couto *see* **Graca a da**

Coverdale, Howard Vincent (1897-1971) New Zealand ophthalmologist. Coverdale was born in Christchurch in the South Island of New Zealand. After leaving school where he became head-prefect, he learned to fly at Auckland and joined the R.A.F. in England in 1918. On his demobilization at the end of the war he went to Cambridge University and his versatility was immediately apparent in his becoming president of the Medical Society, president of the Heitiki Club (of New Zealand men at Cambridge), and a member of the Shakespeare Club of Caius College, and representing his college at tennis, golf, and hockey. His medical education was completed at St.Thomas's Hospital, London, where his athletic ability made him captain of the tennis and golf teams. His main interest, however, was ophthalmology, and for this reason he went through the residency at Moorfields Eye Hospital. Here he excited the greatest regard and affection; indeed, because of his surgical skill and personal qualities, he was one of the most popular residents the hospital has had. Despite the fact that he was pressed to remain in London, he decided to return to New Zealand, largely for reasons of health, and set up ophthalmic practice in Auckland. Here, as would be expected, he prospered; but on the outbreak of the second world war he immediately enlisted in the army and, going overseas with the Third General Hospital, he was responsible for most of the ophthalmology in the New Zealand Division - and for many others - in the North African and Italian campaigns. Returning home in 1945, he maintained his interest in the Services by becoming chairman of the Medical Committee of New Zealand St. Dunstans with which he worked for many years. His contributions to ophthalmology were considerable and, in addition to numerous papers on a wide variety of subjects in various medical journals, he was editor of the *Transactions of the Ophthalmological Society of New Zealand* for 10 years, an associate editor of *Ophthalmic Literature*, and a member of the International Editorial Board of the American Quarterly Review of Ophthalmology. In the profession in his own country the esteem in which he was held was shown by his occupying the posts of president of the Ophthalmological Society of New Zealand and of the Auckland Clinical Society. BJO 1971,55:432

Covey, John Elsworth (1861-1907) American ophthalmologist of central Illinois. He was born in McLean Co., Illinois. He came of old American stock, his granduncle, in fact, having been the messenger that carried the news of Arnold's treachery from West Point to Vol. V-Hartford, where Washington then was. The subject of this sketch was educated in the common schools and at Wesleyan College, Bloomington, Ill., and at Rush Medical College, Chicago, at which institution he received his degree in 1887. In the same year he settled in Lexington, Ill., forming a partnership with a Dr. Graham. Two or three years later he purchased Dr. Graham's remaining interest. He continued in general practice at

Lexington till Jan. 1, 1903 nearly sixteen years-when he decided to become. an ophthalmologist. For nearly two years, then, he studied in New York and London. Later, he studied for some time with Casey A.→Wood, in Chicago. Near the close of 1904, he located at Bloomington, Ill., where he met with immediate success, and continued to practice ophthalmology until his death. In his general practice he is said to have accumulated a small fortune. Politically, he was a Republican. American Encyclopedia of Ophthalmology, vol.5, p.3547-3549.

Coward, William. Born at Winchester, England, in 1656 (1657?), he studied at Oxford University and there received his medical degree in 1687. He practised for a time in Northampton,,then removed to London, where he published a number of metaphysical and theological works, which were publicly burned as heretical. After this he practised for a time in Ipswich. His only ophthalmological work is entitled *"Ophthalmiatria, qua Accurata et Integra Oculorum Male Affectorum Instituitur Medela, Nova Methoda Aphoristice Concinnata Authore Gul.* Coward, Coll. Med. Lond. M.D., London, 1706." It is a poorly written work, scanty, and limited wholly to diseases of the cornea and the lachrymal apparatus, with a few remarks on cataract and amaurosis. The man seems to have been conceited, abusive, evil-minded, and, in addition, an outrageous quack. American Encyclopedia of Ophthalmology, vol.5, p.3549.

Cowell, George (1836-1927) British ophthalmologist. Cowell studied medicine at St. George's Hospital, London, under the anatomist Gray and others. Both an ophthalmologist and a general surgeon, he was surgeon and lecturer at Westminster Hospital for over fifty years; he founded the Victoria Hospital for Children, Chelsea (1866), and served as general and ophthalmic surgeon there. He wrote: "*Lectures on cataract*" London 1883. Albert

Cox, Albert Jeffrey (1862-1918) American ophthalmologist and oto-laryngologist of Superior, WI., born at Trempeleau, WI., who graduated at the Galesville, Wis., University, and at Rush Medical College, Chicago. He practiced in southern Minnesota for 26 years, and at Superior, WI., for 4 years. AJO,1:381.

Crabb, John, W. (? -) American Biochemist working on vision mechanisms; Staff of the Cole Eye Institute, Cleveland Clinic Foundation, Cleveland, OH, and CCF faculty, Dept Chemistry, Cleveland State University, Cleveland, OH. He graduated from Lewis and Clark College, Portland, OR in 1971 and studied in the Graduate School of the University of Kansas with Ph.D. granted in 1978. He then extended his studies of biochemistry at the University of Michigan, Medical School as a Post-doctoral fellow (1978-1980) and at the University of Washington, School of Medicine, Seattle, WA as a Senior Fellow (1980-1982). He has held various academic positions, and they include Assistant Professor and Director, Protein Sequencing Facility, Inst. für Physiologische Chemie, Ruhr-Universität, Bochum, Germany(1983-1985), Adjunct Professor, Department of Biology, Clarkson University, Potsdam, NY (1987-1998), Adjunct Faculty, In Vitro Cell Biology and Biotechnology Program SUNY, Plattsburgh/W.H. Miner Agricultural Research Institute, Chazy, NY(1989-1992), and Member, Vermont Cancer Center, University of Vermont, Burlington, VT(1993-1998). He has been in the present position as above since 1998. He is a member of American Society for Biochemistry and Molecular Biology; Association of Biomolecular Resource Facilities; Association for Research in Vision and Ophthalmology and the Protein Society. He is Executive Editor of the Exp. Eye Res. since 1998 and has been a member of many Governmental Committees. His research interest has been centered in biochemical aspects of vision mechanisms and he has published more than 117 original articles, and some examples are " Crabb, J.W., Z. Nie, Y. Chen, J.D. Hulmes, K.A. West, J.T. Kapron, S.E. Ruuska, N. Noy and J.C. Saari (1998) *Cellular Retinaldehyde-Binding Protein Ligand Interactions: Gln^{210} and Lys^{221} are in the Retinoid-Binding Pocket*. J. Biol. Chem. 273:20712-20720", " Ohguro, H, N Yoshida, JW Crabb, K Palczewski and M Tsuda (1998) *Identification of a Single Phosphorylation Site within Octopus Rhodopsin*. Photochem and Photobiol 68: 824-828", " Brown RL, TL Haley, KA West and JW Crabb (1999) *Pseudechetoxin-A Peptide Blocker of Cyclic Nucleotide-Gated Ion Channnels*. Proc Natl Acad Sci USA 96: 754-759" and " Kennedy BN, JC Saari and

JW Crabb (1999) CRALBP and Retinal Degeneration In: *RETINAL DEGENERATIVE DISEASES AND EXPERIMENTAL THERAPY* (JG Hollyfield, RE Anderson and MM LaVail, eds), Plenum Press pp 43-53. ". Currently, he is working on the project "*Visual Cycle Proteins*" that encompasses broad structure-function studies of the cellular retinaldehyde-binding protein and also on the project "*Protein Composition of Bruch's Membrane and Drusen From Normal and Age-related Macular Degeneration Eyes*" for the better understanding of the biological events contributing to age-related macular degeneration.(Department of Ophthalmic Research, Cole Eye Institute, The Cleveland Clinic Foundation, 9500 Euclid Ave (FFb-31), Cleveland, OH, 44195, U.S.A. phone: +1-216-445-0425; fax:+1-216-445-3670; e-mail: crabbj@ccf.org (SM)

Craig, James Andrew (1873-1959) Irish ophthalmologist from Belfast. Craig studied medicine as an undergraduate at Queen's College, Belfast, and in 1895 obtained First Class Honours in the M.B., B.Ch., B.A.0. examination of the Royal University of Ireland. After holding various House Officer appointments he decided to take up surgery, and in 1902 became a Fellow of the Royal College of Surgeons of England. He then proceeded to Vienna where he spent some years studying ophthalmology and otology. His main life's work was done in Belfast, where he was on the staff of the Royal Victoria Hospital from 1903 until his retirement in 1937 at the age of 65. In 1913 he was appointed lecturer in ophthalmology and otology at the Queen's University of Belfast, a post which he held for 24 years. On the outbreak of hostilities in 1939 he returned to his old hospital post to help to relieve his junior colleagues for service in the armed forces. Queen's University paid tribute to his long and distinguished services in 1951 by awarding him the degree of M.D. (honoris causa). In the following year he gave a considerable sum of money to the university to be devoted for the furtherance of ophthalmological studies (James Craig Prize). Craig was a member of the Ophthalmological Society of the United Kingdom and of the Oxford Ophthalmological Congress, and was a past president of both the Ulster Medical Society and the Irish Ophthalmological Society. To all of these bodies he contributed scientific papers from time to time. As an ophthalmologist he was exact and methodical, an excellent surgeon and a good teacher. He was well versed in literature and his writings were concise and punctilious. BJO 1959,43:192

Cramer, Antoine (Antonie) (1822-1855) Dutch physician, born in Winschoten, Holland. Cramer received his M.D. at Groningen in 1844, his doctoral thesis being "*De Morbo Brightii*". A member of the editorial board of the journal "*Tijdschrift der Nederlandische Maatschappij tot Bevordering der Geneeskunde*" he contributed from 1851 his "*Mittheilungen aus dem Gebiete der Ophthalmologie*" in which he treated the position of the iris and →Czermak´s orthoscope. Cramers concentrated his research on the accommodation process in the eye; he published (1853) an important essay on the subject. His remarkable monograph was titled: "*Het accomodatievermogen der oogen physiologisch toegelicht*." Haarlem 1853, translated into German by Doden: "*Physiologische Abhandlung über das Accomodations-Vermögen der Augen*" Leer 1855. Albert

Crawley, Frank (1871-1935) Irish ophthalmologist. Born in Dublin, he was the son of the late W. J. Chetwode Crawley, LL.D., D.C.L. After preliminary education in Ireland he entered Shrewsbury School in 1836, where he was in School House under Moss. He left in the next year for Caius College, Cambridge, and took his B.A. in 1892. Crawley qualified M.B., B.Ch. at Dublin in 1896, and later took the M.D., becoming F.R.C.S.I. in 1900. After postgraduate study in Berlin and Vienna he returned to Dublin and was elected surgeon to the Royal Victoria and Ear Hospital. Later he became ophthalmic surgeon to the City of Dublin Hospital, and consulting ophthalmic surgeon at the Rotunda. Crawley served as president of the Royal College of Surgeons in Ireland from 1932 to 1934, and wan president of the section of ophthalmology the British Medical Association at the Dublin rneeting 1932. He became a member of the OSUK in 1901and contributed a large number of papers to its Transactions. BJO 1936,20:125

Crédé, Karl Siegmund Franz (1819-1892) German obstetrician. He studied medicine first at Berlin, later at Heidelberg, returning, however, to Berlin for the purpose of

receiving his professional degree (1842).After five long "Wanderjahre" (1843-48) he became assistant at Bush's obstetrical clinic in Berlin. In 1850 he qualified as Privat-Docent for obstetrics in the same institution. In 1856 he removed to Leipzig in order to accept at the university of that place the professorship-in-ordinary of obstetrics, as well as the directorship of the Leipzig Lying-in Institution and School for Midwives. In 1860 he was appointed aulic counselor, and, ten years later, became medical adviser (Geheimer Medicinalrat). He remained in Leipzig for the rest of his days. Credé will be remembered, perhaps till the end of time, not only as an obstetrician, but as ophthalmologist. In the former field his principal invention was Credé's Method for Expressing the Placenta. In the latter, it was Credé's Method of Prophylaxis against Ophthalmia Neonatorum. It is hardly necessary to add, in a work like this, that the method in question consists simply in the instillation into the eyes of the newly-born of a weak solution of argentic nitrate. Simple as this procedure is, it has, beyond all peradventure, saved multitudes of human beings from the horrible curse of blindness. Among the more important works of this remarkable man (whose cosmopolitan benefactions may perhaps be regarded as symbolized by his Franco-German name) are these: "*Clinical Lectures on Obstetrics*" (2 vols., Berlin, 1853-54), "*De Omphali Proptosi*" (Dissertation, Berlin, 1842), "*De Foetus in Utero Mutilatione Filis Membranisque Pathologicis Effecta*" (1858), "*De Optime in Partu Naturali. Placentam Amovendi Ratione*" (1860), "*The Prevention of Ocular Inflammation in the New Born*" (1884).A memorial bust of the great obstetrician and ophthalmologic innovator was erected in 1908, in the Leipzig Universitäts-Frauen-Klinik. American Encyclopedia of Ophthalmology, Vol.5,p.3556-3557

Cresswell, Frank Pearson Skeffington (1867-1936) British ophthalmologist, born 22 March 1867 at Hillside, Dowlais, Glamorgan, the second child and eldest son of Pearson Robert Cresswell, C.B. and Jane Catherine Robinson, his second wife. His father (1834-1905) was a well-known surgeon in the colliery district of South Wales who, after he was appointed chief surgeon to the Dowlais Iron and Colliery Company in 1860, was instrumental in introducing Listerian methods into South Wales (obituary memoir with portrait in *Brit. med. J.* 1905,2:1493). Frank Cresswell was educated at Christ's College, Brecon, and was one of the first pupils in the University College, Cardiff. Having taken the B.Sc. at the University of London and served the post of house surgeon at the Cardiff Royal Infirmary he entered the medical school at Guy´s Hospital, having determined to devote himself to ophthalmology, and went to Utrecht for a course of study in that subject. On his return to England he became a clinical assistant at the Royal London Ophthalmic Hospital, and was appointed a prosector at the Royal College of Surgeons of England. He settled at Cardiff in partnership with John Tatharn Thompson, the senior ophthalmic surgeon to the infirmary and was appointed ophthalmic surgeon to the Aberdare and the Merthyr General Hospitals and the Hamadryad Seamen's Hospital. On the unexpected death of Henry Collen Ensor he was elected ophthalmic surgeon to the Cardiff Royal Infirmary, a post he held until 1932. Cresswell was a good teacher and held a high position as an ophthalmic surgeon. He was lecturer on ophthalmology in the Welsh National School of Medicine, and president of the section of ophthalmology at the Cardiff meeting of the British Medical Association in 1928. Apart from his professional work, in which he made a special study of eye troubles in miners, his interest lay in freemasonry. He was a past grand deacon of England, and held high office in most of the allied degrees. His titles and degrees were: M.R.C.S. 10 November 1892; F.R.C.S. 13 December 1894; B.Sc. London 1887; M.B., B.S. Wales 1893; L.R.C.P. 1892. Lancet, 1936, 2, 950; Brit. med. J. 1936, 2, 846; LFRCS 1930-1951:179

Cridland, Richard Nigel Bernard (1909-1971) British ophthalmologist. Cridland was the son of the famous Bernard of Wolverhampton. Nigel Cridland inherited his share of his father's grace and charm. An exhibitioner at Winchester, he went up to Oxford in 1928 and then to St. Mary's Hospital. He was Radcliffe Scholar in Pharmacology at Oxford and gained the Wallace Memorial Prize in Bacteriology and the yearly prize in Ophthalmology at St. Mary's in 1934. Having obtained an Honours Arts degree he qualified in 1935, took his B.M., B.Ch. in the same year, and went on to take his M.D. in 1941; he passed the D.O. (Oxon.) in 1936 while clinical assistant at the Oxford Eye Hospital. He was House Physician to the Medical Unit at St. Mary's in 1937, spent 3 months at the R.A.F. Hospital,

Cranwell, and then became house surgeon at the Free Eye Hospital, Southampton. He then started in ophthalmic practice in Portsmouth, and was appointed in due course to the Staff of the Portsmouth Eye and Ear Hospital, and the Royal West Sussex Hospital, Chichester. He joined the R.N.V.R. in 1938, was called up a week before the war started, and served until 1944. After the war, honorary consultant appointments followed to the Bognor Regis War Memorial Hospital; Gosport War Memorial Hospital; Graylingwell Hospital, Chichester; Queen Alexandra Ministry of Pensions Hospital, Cosham; and the Royal Portsmouth Hospital. His latest appointment was to the King Edward VII Memorial Hospital, Midhurst, in 1969. In the National Health Service he was Consultant Ophthalmic Surgeon to the Portsmouth Group and Chichester Group Hospitals. Nigel Cridland was devoted to his specialty and generous in his attention to the administrative and scientific side. He was instrumental in founding the Southern Ophthalmological Society and was President in 1962-63, in which year he was also member of Council of the Ophthalmological Society of the United Kingdom; he was Chairman of the Portsmouth Physical Society in 1957; Vice President of the Section of Ophthalmology, Royal Society of Medicine, for two spells of office; and Deputy Master of the Oxford Congress in 1970. His knowledge of mathematics and engineering was above average, and this shows in some of his scientific papers, one of which discussed a graticule of his own designing for foreign body localization. His special knowledge was also useful to the British Standards Institution with which he had been connected since 1954; for 10 years he was chairman of the Ophthalmic Standards Committee. BJO 1972,56:72

Crisp, William H. (1875-1951) American ophthalmologist, born in London, England. Crisp went to school in London for a few years and then continued in private study. In 1907, he was graduated to the doctor's degree in what is now the School of Medicine of the University of Colorado and six years later was admitted to the degree of Doctor of Ophthalmology. He was a member of the faculty of the university for many years. From 1910 to almost the end of a long life his central interest was the practice of ophthalmology, admired by patients and colleagues alike for his sound judgment, uncompromising conscientiousness, and great skill. One had only to talk briefly with the men of Denver to feel that they looked to him eagerly for leadership, guidance, and approval. He was repeatedly elected to office in the Colorado Ophthalmological Society and was equally active in national ophthalmologic affairs. Not only the reports of his own investigation but his discussions of the work of others at meetings of the American Ophthalmological Society, the academy, or the section of the A.M.A. made one aware of his vigorous critical intellect. His contributions to ophthalmologic education were extensive and important. For 11 years he was a member of the American Board of Ophthalmology and he was its chairman once. In his repeated postgraduate courses during the meetings of the academy his graphic demonstrations of the niceties of the cross cylinder were of inestimable value in promoting an appreciation of the importance of meticulousness in procedure. Perhaps his contribution to ophthalmologgy was his indefatigable work as editor. For 35 years successive labors on the Ophthalmic Yearbook, the editorship of the Am J. of Ophthalmology, and, since its inception, the direction of the Abstract Department of the Journal, occupied a substantial share of his time and he considered himself well repaid in the sense of service to the profession. It is quite probable that it was his love of language that endeared this work to him. He had an innate sense of style in English prose and a command of seven foreign languages. During an extended tour of South America he lectured repeatedly in Spanish and Portuguese. He had a great fondness for Latin-American thought, he worked for international understanding among all American nations, and was especially honored for it at the Pan-American Congress of Ophthalmology in Havana in 1948. AJO 1951,34:1762-1763

Critchett, Anderson (Sir Anderson) (?- 1925) British ophthalmologist, Surgeon Oculist to the King. At the time of his death, he was the doyen of British ophthalmologists. Not only could he look back on a career of over fifty years as an ophthalmic surgeon himself, but as a successor to a distinguished father, he was a link with the founders of modern ophthalmology. Sir William Bowman, Jonathan Hutchinson, George Lawson and George Critchett were the great names in the ophthalmic world in the sixties and seventies of the 19th century, and George Anderson Critchett, the son of the last named, was born in the at-

mosphere of ophthalmology and was approaching manhood at the time when the discovery of the ophthalmoscope produced a renaissance in the study of diseases of the eye. *"La reputation d'un père est un lourd fardeau pour le fils."* (The reputation of the father is a heavy burden to the son). But in the case of Anderson Critchett, great tough his father had made the name, he undoubtedly added to its repute, and it is safe to say that there are few names of British ophthalmic surgeons better known in the world at that time. He received his early education at Harrow and retained to the end the greatest love and pride in his old school. The cheer with which he was greeted when he went to Harrow on Speech Day in the summer of 1908, after he had been made a Baronet gave him more happiness than almost any other recognition of that honor. At Harrow he won the prize for English Literature and though he did not actually gain a place in the XI, he laid the foundations of a good cricketing style which served him well when, later on, he went up to Caius College, Cambridge. He graduated in 1867 and immediately after began to study medicine at the Middlesex and qualified in 1872. There followed a period in his career when it seemed almost doubtful whether medicine or music should claim him. He possessed a fine baritone voice and a love for the drama and social qualities which all acted together to draw him away from the serious profession of medicine. His affection for his father and his desire to be of assistance to him proved an effective counterbalance to these attractions and from that time onwards he seriously devoted himself to the study of ophthalmology. He speedily began to acquire a wide reputation and it is of interest to note that his first published paper on *"Inoculation in Ophthalmic Practice"* was published in a French journal , the "Annales d´Oculistique" in 1877. In 1881 he was elected out of a strong field of candidates Ophthalmic Surgeon to St. Mary's Hospital and it was his work there that finally established his reputation and incidentally built up one of the biggest eye clinics at any of the general hospitals in London. Critchett himself would be the first to recognize how much he was aided in his work at St. Mary's by Henry Juler and how loyally they worked together when a few years later Juler was coopted as his colleague. His career from now onwards is a simple record of increasing honors accorded to him. In 1889 he was elected President of the Ophthalmic Section of the British Medical Association. In 1894 at Edinburgh and again in 1899 at Utrecht, he was elected honorary President of the International Ophthalmological Congress. From 1899 to 1901 he was President of the Ophthalmological Society of the United Kingdom. He became Surgeon Oculist to King Edward VII in 1901 and was knighted in the same year. In 1905 King Edward created him a Commander of the Victorian Order and in 1908 he was raised to the rank of Baronet. In 1912, when a new section of ophthalmology was started in the Royal Society of Medicine he was the first President. In 1913 he was President of the section of Ophthalmology of the International Medical Congress at London and in 1918 on the foundation of the new Council of British Ophthalmologists he was elected the first President of that body. And in 1919, in recognition of his war services to King George the V Hospital, he was made a Knight of Grace of the Order of St. John of Jerusalem, and in the same year created a K.C.V.0. BJO 1925,8:333-334

Critchett, George (1817-1882) Famous British Ophthalmologist and inventor of a number of useful ophthalmic operations. Born in Highgate, England, in 1817, he studied at the London Hospital, became therein, in 1839, anatomical prosector, and, a little later, surgeon. Directing his attention especially to ophthalmology he became successively Assistant-Surgeon, Surgeon, and Consulting Surgeon at the London Ophthalmic Hospital. He was a remarkable operator, and invented inter alia, iridodesis, his own variety of the subconjunctival method of operating for strabismus, and the method of enueleation which still bears his name. He did not write very much. In 1854 he published in the London Lancet *"Lectures on the Diseases of the Eye"* and a pamphlet entitled *"Operation for Strabismus by the Subconjunctival Method;"* in 1864, *"The Linear Extraction of Cataract."*; *"Lectures on the causes and treatment of Ulcers of the lower extremity"* London 1848; *"Original observations founded upon a series of cases of extirpation of the globe"* London 1855; *"Practical remarks on strabismus with some novel suggestions respecting the operation."* Deptford 1855. American Encyclopedia of Ophthalmology, Vol.5,p.3562-3563. Albert

Croissant de Garengot, R.J. see **Garengot**

Cross, Alexander Galbraith (1908-1996) British ophthalmologist, born in Wimbledon. Cross was educated at King´s College School in Wimbledon and Gonville and Caius College, Cambridge. He entered St.Mary´s Medical School in 1931 having obtained his BA Cambridge and qualified in 1933. After residencies in the professorial medical unit, he passed his primary FRCS and later the final in general surgery. There followed a residency at Moorfields Eye Hospital (then Royal London Ophthalmic Hospitals). During the war he served as Adviser in Ophthalmology South East Asia Airforces. When peace returned, he was appointed to St.Mary´s and to Moorfields, which hospitals he served until his retirement in 1973. He also was a consultant to the Royal Navy, to St.Dunstan´s and to the Royal National Institute for the Blind. In 1975-77 Cross was President of the Ophthalmological Society of the United Kingdom.British Journal of Ophthalmology, 1996,vol.80, p.580.BMJ 1996,312:906

Cross, Francis Richardson (1848-1931) British ophthalmologist, son of the Rev. Joseph Cross, M.A., who matriculated from Magdalen Hall, Oxford, 11 November 1812, was vicar of Merriott, south Somersetshire, married Caroline Richardson, and was afterwards precentor of Bristol cathedral. Francis Richardson Cross was born and was educated at Crewkerne Grammar School until he entered as a medical student at King's College Hospital. Subsequently he earned his M.R.C.S. 25 January 1873; his F.R.C.S. 13 June 1878; his M.B. London 1879; his LP. Bristol 1902 and received a Hon. LL.D. Bristol in 1912. He acted at King´s College Hospital as house surgeon in charge of the eye wards, was sub-dean, medical tutor, and evening lecturer on physiology. He also served as assistant demonstrator of anatomy. In 1896 he was elected a Fellow of King's College. He was for a short time resident medical officer at the St Pancras Infirmary, after which he attended clinics in Vienna, Berlin, Paris, and Utrecht, where he came under the influence of Professor Snellen the ophthalmologist. His interest in the subject being thus aroused, he became clinical assistant at the Royal London Ophthalmic Hospital on his return to England. In 1878 he joined the medical school at Bristol as lecturer on anatomy, was elected assistant surgeon to the Bristol Royal Infirmary in September 1878 and surgeon in January 1879. He held this post until 1885 when, deciding to specialize in ophthalmic surgery, he was elected ophthalmic surgeon to the infirmary and held, office until July 1900. He then resigned, was elected a governor, and retained his, interest in the institution until 1925, having been elected a vice-president in 1919. During his tenure of office as surgeon to the infirmary, he was dean in 1880.of the medical faculty of University College, Bristol, which had not then been raised to the status of a university. In 1882 he was appointed surgeon to the Bristol Eye Hospital and raised the institution to a high state of efficiency. His first house surgeon was Herman Snellen, the son of his old teacher at Utrecht. He remained upon the active staff until November 1925 when he resigned and received the complimentary title of consulting surgeon, remaining a member of the committee until his death. In 1891 he was president of the Bristol Medico-chirurgical Society, and in the same year he was president of the ophthalmological section at the Bristol meeting of the British Medical Association. From 1898 till 1914 he was a member of the council of the Royal College of Surgeons of England and delivered the Bradshaw lecture in 1909, "*On the brain structures concerned in vision and the visual field*" (printed Bristol 1910). From 1912 to 1915 he was president of the Ophthalmological Society of the United Kingdom. In 1901 he delivered the annual oration at the Medical Society of London on "Some landmarks in the progress of the medical science". Cross was one of the last ophthalmic surgeons who began life as a general surgeon and afterwards specialized in his subject. He had many interests outside his profession. Settled at Bristol, he took an active part in the social and municipal life of the city. He served as sheriff in 1897 and was presented with a silver cradle to mark the birth of a daughter during his year of office. He was made a Justice of the Peace in 1902 and took an influential part in securing the foundation of the university in 1909, where he became lecturer and later reader in ophthalmology. He was president of the Grateful Society in 1889, of the Dolphin Society in 1911, and of the university Colston Society in 1916. During his tenure of these offices he was successful in collecting large sums for charitable purposes. He was throughout a keen sportsman, hunting with the Duke of Beaufort's hounds. He also took a great interest in the breeding of stock. He acted as chairman of the Bristol centre of the St John Ambulance Brigade, and for very many years was chairman of the Bristol School for the

Blind. The welfare of the blind was always very near his heart and he was instrumental in obtaining new and better premises for the Royal School for the Blind. A portrait painted in 1920 by Miss B. Bright hangs in the senate room of the Bristol University, and there is a replica in the Bristol Eye Hospital. The Times, 13,14 and 15 June 1931; Bristol med. chir.J. 1931,48:226; Lancet, 1931,2:218; Brit. med. J. 1931,2:169; LFRCS 1930-1951:183-184

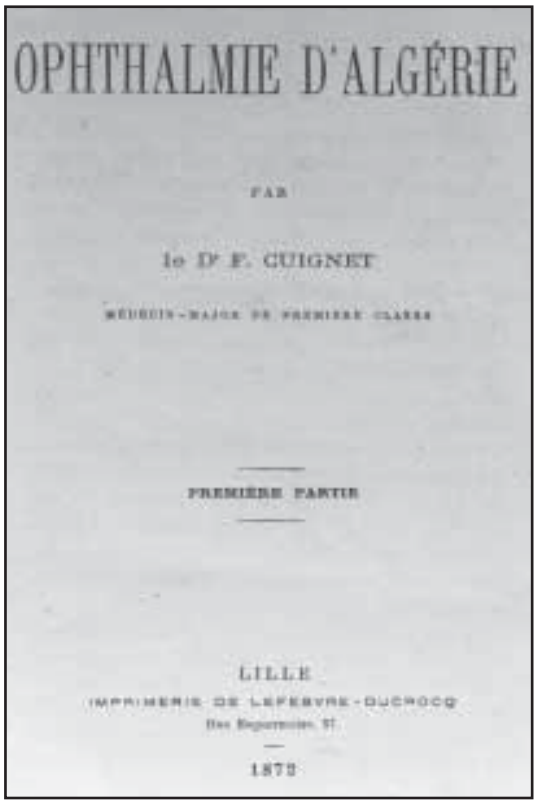
Cruise, Richard (Sir Richard) Robert (1877?-1946). British ophthalmologist., born about 1877 at Purneah, India, son of Francis Cruise who had died before Richard entered Harrow in April 1890. He received his medical training at St Mary's Hospital. After qualifying in 1900 he specialized as an ophthalmologist, and served as senior clinical ophthalmic assistant at St Mary's and chief clinical assistant at the Royal London Ophthalmic Hospital, Moorfields. He was for a time house surgeon at the Bristol Eye Hospital and also worked at the Royal Eye Hospital, Southwark, in Paris, and at the Royal Westminiter Ophthalmic Hospital to whose staff he was elected in 1909 and to which he ultimately became a consulting surgeon. In 1934 he founded a research scholarship at the hospital. He was consulting ophthalmic surgeon to Harrow Hospital. Cruise was ophthalmic surgeon to the King Edward VII Hospital for officers, and in August 1914 was commissioned as a captain in the R.A.M.C. He served in France and at the 3rd London General Hospital at Wandsworth. In 1917 he invented a chain visor for attachment to the rim of the soldier's steel helmet; it was three inches deep and could be drawn as a veil across the eyes. The visor was officially adopted in 1919 and was very successful in preventing blinding wounds. Cruise was a brilliant, if somewhat conservative, operator and an excellent teacher. He excelled at the extraction of cataract with iridectomy, and in obtaining perfect drainage in operation for glaucoma. He was for many years surgeon oculist to King George V and on his death in 1936 became surgeon oculist to Queen Mary, an office which he held till the end of his life. He was created C.V.0. in 1917, advanced to knighthood in the Order in 1922 and received the Grand Cross in 1936. He served on the councils of the Ophthalmological Society and of the ophthalmological section of the Royal Society of Medicine. He wrote an excellent book: *Clinical Refraction* London 1914 , and contributed to the journals of his specialty. Cruise earned following titles: G.C.V.0. 1936; K.C.V.0. 1922; C.V.0. 1917; M.R.C.S. 25 July 1900; F.R.C.S. 11 June 1903; L.R.C.P. 1900. Lancet 1947,1:45; Brit med J.1947,1:74; LFRCS 1930-1951:185-186

Csapodi, Istvan (1856-1912) Hungarian Ophthalmologist. Csapodi was born at Sopronhorpacs in West-Hungary. He studied medicine in Pest. After obtaining his doctor's degree in 1880, he worked in Professor →Schulek's Clinic for 9 years. After having left the clinic, however, he did not look upon ophthalmology as his main field of interest but began to specialize in school hygiene. From 1891 he lectured on hygiene in the Faculty of Arts. Nor did he discontinue his practice in ophthalmology, and from 1894 he worked as consultant ophthalmologist in the eye department of the Hospital at the Jozsef's Avenue. An excellent mind and versatile not only in ophthalmology and public hygiene he also investigated linguistic and publicistic problems. In 1890 he was awarded Privatdocent, and in 1895 Associate Professor. He wrote 90 studies in manifold fields of science. His chief merit, in Hungary was to introduce the first Hungarian reading tests for the determination of the visual acuity near and at distance. The charts were so successful that they are still being used with slight modifications. Although he himself hardly ever practiced eye surgery, he had been the first to draw attention to the significance of retinal breaks in the development of retinal detachment, in 1891, 40 years before →Gonin's publication. 30 years earlier than →Koeppe he had described glaucomatous iris atrophy. He suggested various therapeutic measures and constructed a great number of ophthalmological instruments. At the International Congress of Medicine, held in Budapest in 1909, he proposed new standard units for measuring visual acuity. His handbook entitled '*Utmutaato a szemeszetben*' ('A Guidebook of Ophthalmology'), the first high-standard textbook in Hungarian language, appeared in 1889. He wrote the first textbook on '*Hygiene*' in Hungarian (1889) which was also translated into German (1891). Csapodi made great efforts to Hungarianize the medical language. As an outstanding popularizer of science he was elected to the Chairman of the Society of Public Hygiene in Hungary. Magda Radnòt: *Famous Hungarian Ophthalmologists* (Budapest 1970)

Csapody, Istvan (? - ?) Hungarian ophthalmologist, not to be confounded with the Hungarian ophthalmologist bearing same names and born in 1856 . He wrote: *Berufsleben des Augenarztes. Eine ophthalmologische Ethik und Pädagogik*. ; (=*Bücherei des Augenarztes*, volume 10) Stuttgart 1941 and *Augenhöhlenplastik.* Budapest 1953. JPW, not in Radnòt.

Cubbison, George Anderson (1863-1918) American ophthalmologist of Erie, Penna. Born in 1863, he received the medical degree at the Western Pennsylvania Medical College, Pittsburgh, in 1897

Cuénod, Auguste Jean (1868-1954) Swiss ophthalmologist. He wrote: "*Bactériologie et parasitologie cliniques des paupières*." Paris: G. Steinheil, 1894. Albert


OPHTHALMIE D'ALGÉRIE

PAR

le Dr F. CUIGNET

PREMIÈRE PARTIE

LILLE

1873

Cuignet, Ferdinand Louis Joseph (1823-?) French ophthalmologist who introduced with his paper "Kératoscopie" (Receuil Ophtal, 1873/74, 1,14-23) the "shadow test," or skiascopy or retinoscopy, in examinations for astigmatism; it became widely used in England. He also wrote: "*Ophthalmie d'Algérie.*" (2 vols.) Lille 1872. Albert

Culbertson, Howard (1828-1890). A famous American general practitioner, who was also known as an ophthalmologist. He was born in Zanesville, Ohio, the son of the Rev. James Culbertson and Elinor Calhoun Culbertson, both of whom were of Scot and Irish stock. Howard Culbertson's preliminary training was received at public schools and at Howe's Academy, Zanesville. When seventeen years of age, having great mechanical ability, he moved to Cincinnati and became a machinist. The work in the shop, however, proving too heavy, he decided to study medicine. After a brief stay with his preceptor, Dr. Little, a physician of local note, he proceeded to the Ohio Medical College, at Cincinnati, Ohio, where he took one course of lectures. His second course was attended at Jefferson Medical College, Philadelphia, Penn. from which institution he was graduated in 1850. Returning at once to Zanesville, he entered into general practice, making, however, a specialty of ophthalmology and otology. Soon after the war broke out, he enlisted in a surgical capacity. In the fall of 1862 he was Acting Assistant Surgeon. Returning to Zanesville, he devoted himself again to his general and special practice with a zeal which, in spite of his feeble health, soon gave him a wide celebrity as diagnostician and operator. He was a well-known writer on scientific subjects. He was one of the chief contributors to the "*Medical and Surgical History of the War of the Rebellion*." In 1862 he wrote an essay on "*The Sin of Anesthetics in Midwifery*," for which he received the gold medal of the Ohio State Medical Society. In 1876 he published his magnum opus, a book entitled "*Excisions of the Larger Joints of the Extremities*." Referring to this article, Professor Louis Sayre, of New York, when presenting Dr. Culbertson to his class, declared: "Gentlemen, I have the honor to present to you a man who has accomplished a task which no other man in the United States would have had the courage to undertake, or the patience to finish." This work was published as the prize essay of the American Medical Association for that year. Among his numerous ophthalmologic articles those of chief value are: "*Some Thoughts on Astigmatism of Curvature*" (Am. Jour. Oph., Vol. III) ; "*Four Cases of Galezowski's Extraction of Cataract*" (Do. Vol. VIII) ; "*On a Mode of Determining with the Prisoptometer the Degree of Latent Hypermetropia without Mydriatics*" (Do); "*A Mode of Determining the Absolute Myopia through the Aid of Glasses with the Prisoptometer*" (Ibid.) ; "*On the Application of Cylindrical Glasses in Spasmodic Myopic Astigmatism*" (Ibid., Vol. II) ; "*A Case of Glaucoma, Illustrated with Microphotographs*" (Ibid., Vol. IV). "*A Case of Iridochoroiditis with Sympathetic Irritation of Fellow Eye*" (Ibid., Vol. IV) ; "*On the influence of the Removal of the Punctum Prox. and Greater Correction with Convex Glasses in Hyperopia*" (Ibid., Vol. V) ; "*Binocular Astigmatism*" (Ibid., Vol. V). He was also one of the Assistant Editors of the "*American Journal of Ophthalmology*." For several years he was Professor of Ophthalmology in the Columbus Medical College,

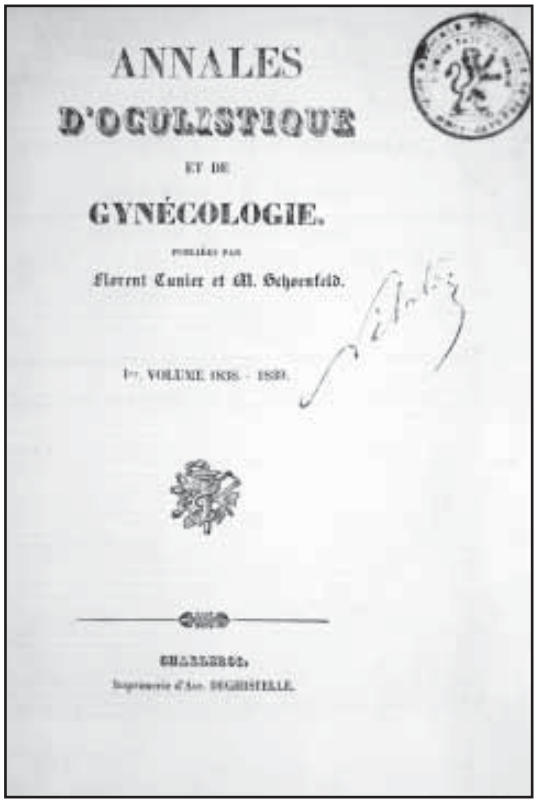
Columbus, Ohio. Then, too, he was a very busy and successful inventor of general surgical and ophthalmological instruments. Thus, he devised a meerschaum probe for bullets, used for a time in the U. S. Army, and the prisoptometer which bears his name today. He also invented numerous ophthalmologic knives, forceps, and specula. American Encyclopedia of Ophthalmology, Vol.5,p.3578-3579.

Culler, Arthur M. (1899-1960) American ophthalmologist. Arthur M. Culler was born in Mt. Morris, Illinois. In 1920 he received his A.B. from Mt. Morris College where his father was professor of ethics. His M.D. was obtained at the University of Michigan in 1926. He interned at the University Hospital, Ann Arbor, in 1926-27 and was a resident in ophthalmology there from 1927-30. At this time he became a clinical assistant and then instructor in ophthalmology in the university, during which period he was the John E. Weeks fellow, in ophthalmology and prepared his first paper on "Anatomical studies of the retina." He then entered private practice in Dayton, Ohio, where he met and married 'Mary Swartsel. During this period he found time to do research work, with the Kettering Foundation on the physiology of the eye, particularly on the effects of fever therapy. At this time too, he enlisted in the Dayton U. S. Naval Reserve Unit, which was among the first to be called to active service after Pearl Harbor. After a briefing- period at San Diego, his hospital unit was dispatched to Efate, Nem, Hebrides, in March, 1942, when these islands were approximately the only important group in the South Pacific not yet overrun by the Japanese. In 1944 he was transferred to Portsmouth, Virginia, as chief of ophthalmology. He retired from active service in the Navy with the rank of Captain in 1940 but continued as consultant in ophthalmology to the Surgeon General, U. S. Navy, until his illness. Following the death of Dr. Albert→Frost in the fall of 1945, Dr. Culler was asked to come to The Ohio State University as professor of ophthalmology and chairman of the department, a duty which he assumed upon his retirement from the Navy. During this period he published some 20 papers, all important contributions to ophthalmology. Some were the result of pure research in his early years, the majority on clinical subjects encountered in private practice. His general medical services included membership on the A.M.A. Committee for Industrial Eye Efficiency, 1939-47, and chairman of the National Interprofessional Committee on Eye Care. In addition to the American Ophthalmological Society, he was also a member of the American Academy of Ophthalmology and Otolaryngology, which he served many years as an instructor in the instructional program and participated in the formal program discussions and symposia. He was also a member of the American Medical Association, the American College of Surgeons, the American Association for Research in 0phthalmology, the Columbus Medical Academy and the Columbus Ophthalmology and Otolaryngology Society.

Culver, Carl Calvin (1887-1918) American ophthalmologist and otolaryngologist of Burlington, Kansas. Born in Woodson County, Kans., he received the medical degree in 1911 at the University of Kansas Medical School. He then settled as ophthalmologist and otolaryngologist in Burlington, where he practiced until his death. He joined the army service in August, 1917, with the rank of lieutenant, and died in camp Oct. 8, 1918. AJO 1919,2:165

Florent Cunier

Cunier, Florent (1812-1852) Belgian ophthalmologist and the founder of Belgian ophthalmology. Born at Belveil, Belgium. Despite his brief life, he accomplished many things. In 1840 he established in Brussels an ophthalmologic clinic, which attained a great celebrity. Partly owing to his efforts, atropin and hyoscyamin came into general ophthalmologic use. He was one of the first* with →Dieffenbach, to perform the strabismus operation, as well as complete division of the orbicularis muscle for spastic entropion. He wrote a large number of excellent articles on ophthalmologic subjects for general and special journals(for example "*Note sur la keratoplastique et sur la Sclérectomie, communiquée au cercle medical de Montpellier*"Bulletin Medical du Midi 1837), and, finally, founded 1838, and for some years edited, the justly celebrated *Annales d'Oculistique.* He authored: *Sur la myotomie; appliquée au traitement du strabisme*. Paris 1840 ; *Institut ophthalmique de Bruxelles* Brussels 1845 ; *Recherches statistiques sur la nature et les causes des maladies oculaires observées en Belgique* ... Brussels 1847 ; *Mémoire sur l'ophthalmie contagieuse qui règne dans la classe pauvre et ouvrière*.


ANNALES
D'OCULISTIQUE
ET DE
GYNÉCOLOGIE.
Florent Cunier et Gl. Scheenfeld.

Brussels & Leipzig 1849. *De l'emploi de l'acétate de plomb neutre* Brussels 1849. American Encyclopedia of Ophthalmology, Vol.5,p.3583. *A bitter controversy between Dieffenbach and Cunier broke out about the question of priority. However the Monthyon Prize of the French Academy of Sciences was awarded 1844 to Stromeyer and Dieffenbach "for having performed first this operation on a living person". The operation of strabismus was performed on a cadaver 1837/38 by Joseph →Gensoul and by Jules →Guerin (JPW) .see also *Annales d´Oculistique*, vol.3,pp.96 & 187.van Duyse:Coup d´Oeil sur l´Histoire de l´ophtalmologie en Belgique au XIXème siècle,1912, p.15 and p.238-242(extended, if not complete, bibliography of Cunier).JPW

Cunningham, John Francis (1875-1932) British ophthalmologist, born at Kobe, Japan, the elder son of John Kirkaldy Cunningham, a merchant, and Florence Heaslop, his wife. His father retired from business and settled at Axminster in 1887, and sent his son to Sherborne School. He entered at Michaelmas term 1889 and left in 1894, having been captain of the school XV. He proceeded at once to St Thomas's Hospital and became known as a distinguished athlete, winning the mile in three successive years and playing football both for the hospital and the united hospitals. He filled the office of house surgeon, ophthalmic house surgeon, and the newly created post of ophthalmic registrar. He also served as clinical assistant at the Royal London Ophthalmic Hospital, and was house physician at Bethlem Royal Hospital. He acted for a time as demonstrator of physiology in St Thomas's Hospital Medical School. In 1910 he joined the staff of the Central London Ophthalmic Hospital, and in 1920 he was appointed consulting surgeon to St Charles's Hospital, formerly the Marylebone Infirmary. During the first world war Cunningham, with the rank of major, R.A.M.C.(T), served in France 1915-18, where he had remarkable success in the treatment of trachoma amongst many thousands of Egyptians and Chinese. For his services he was decorated O.B.E. on 3 June 1919. He earned following titles M.R.C.S. 8 February 1900; F.R.C.S. 14 December 1905 and L.R.C.P. 1900. Some of his publications are: *Contagious diseases of the conjunctiva in wartime*, with J. Wharton. Trans. Ophthal. Soc. U.K. 1918, 38, 18 ; *Analysis of a series of cases of interstitial keratitis*. Ibid. 1922, 42, 44. *The eye and emergencies of general practice*, in Sargent and Russell's *Emergencies of general practice*. London, 1910. The Times, 15 July 1932, p. 8e; Brit. med. J. 1932, 2:275; LFRCS 1930-1951: 190-191

Cüppers, Konrad Wolfgang Curt (1910-?) German ophthalmologist. Lecturer at Giessen University 1954, Professor 1958. Simonon Prize 1957. Amblyopy and Strabismus. Kürschners Gelehrten- Kalender 1966,p.351; F. Hollwich Ophthalmologenverzeichniss 1964,p.65-66.

Curran, Peter Vincent (1947-1996). British ophthalmologist. Peter Curran was born on 22 May 1947 in Northampton, the fourth child of Peter Hyacinth Curran, a general practitioner in Northampton, and Alice Claire, ride Kehoe. He was educated at Downside School and won an open exhibition to Brasenose College, Oxford, before entering the Middlesex Hospital Medical School to undertake his clinical studies. He qualified in 1971 and subsequently held junior appointments at the Middlesex and Central Middlesex Hospitals, and at Ipswich Hospital. In 1974 he was appointed ophthalmic registrar at the Westminster Hospital, working with Patrick Trevor-Roper, and in 1978 he became senior registrar at Moorfield's Hospital, working with Sir Allen Goldsmith. He was subsequently appointed consultant ophthalmic surgeon to Queen Mary's Hospital, Sidcup, where he worked for some years, his career being tragically interrupted when a journalist questioned his HIV status. Although he continued in practice thereafter, as an enthusiastic bibliophile he spent an increasing amount of time collecting books (preferably signed first editions) and browsing in the Athenaeum library. His other interests included opera, theatre and chess. He contributed to various journals, and was joint author of a major textbook of ophthalmology. Curran received following titles: MRCS and FRCS 1978; BM BCh Oxford 1971; MA 1971; DO London 1975. BMJ 1996,313:107.

Curtis, E. M. (1840-1874) American Californian ophthalmologist. Born at Warren, Vt., He began to study medicine in the University of Vermont. On the break out of war, he left school and enlisted in the army. Having served out the time for which he had enlisted, he returned to the University, and, though seriously handicapped by tuberculosis acquired in his military service, he received his degree in 1862. In 1863 he re-entered the army, this time as Assistant Surgeon, and in 1864 was promoted to the grade of Brigadier Division Surgeon. After the war he went to New York to study ophthalmology and otology. In 1871 he moved to California, and, settling in Sacramento, hoped to get rid of his tuberculosis. For some time he practiced in that place, but, becoming steadily poorer in health, he took a trip to Australia, where, however, he died May 12, 1874, aged 34 years. Dr. Curtis was a man of great energy and enthusiasm. He performed a rather large number of ophthalmic operations, and wrote several excellent articles on ophthalmologic subjects. Among these were "*Tobacco Amblyopia "*; "*Why Do We Wear Spectacles* " (1872) ;"*Why We Become Deaf*" (1873) ; "*The Use of Atropine in Ophthalmic Practice*", (1873).He was a warm adherent of the view that the so-called "*Tobacco Amblyopia*" is, in reality, produced by alcohol. American Encyclopedia of Ophthalmology, Vol.5,p.3592.

Curtis, John (Sir John) Harrison (1778- ?) British, London otologist and ophthalmologist, and founder of the Royal Dispensary for Diseases of the Ear (1816), where he lectured on aural anatomy, physiology, and pathology. Curtis was appointed court oculist.He wrote: "*Observations on the preservation of sight, and on the choice, use and abuse of spectacles, reading-glasses, etc.*" London 1838; "*A treatise on the physiology and diseases of the eye, containing a new mode of curing cataract*" London 1833 and "*Advice on the care of the eyes, the present state of ophthalmology with new modes of curing diseases of the eye*" London 1845; *Cases Illustrative of the Treatment of the Diseases of the Ear, both Local and Constitutional*. (London, 1818. German trans., Leipzig 1819 and 1823.) Other important writings of Curtis were as follows: *An Essay on the Deaf and Dumb,* (London, 1829; 2d ed.,1834; German Trans., Leipzig, 1830,.) *A Map of the Anatomy of the Eye.*(1835.) American Encyclopedia of Ophthalmology, Vol.5,p.3592-3600; Albert

Harvey Cushing

Cushing, Harvey (1869-1939) American neuro-surgeon, famous for his work on cerebral surgery and especially on pituitary tumours. He had the greatest influence on the treatment of this type of case which frequently comes first under the notice of the ophthalmologist. Cushing was the son of a doctor and was educated at Yale and Harvard Universities where he took his M.D. in 1895. At the Johns Hopkins, Hospital in Baltimore he filled several minor appointments before proceeding overseas for post-graduate study under Kocher, of Berne. On his return to America he was for a time attached to the Johns Hopkins Hospital and later became Professor of Surgery at Harvard University. In 1932 he went to Yale as Professor of Neurology. Besides neurological surgery Cushing was a keen student of the history of medicine and his Life of Sir William Osler is a classic. On his 70th birthday, he was presented with a bibliography of his writings. Among the numerous honours which he received should be mentioned the C.B. (Military), the Legion d'Honneur, the F.R.S., Hon. F.R.C.S. England, Edinburgh and Ireland, and the Lister Medal. BJO 23,795-796,1939

Cushman, Beulah (1890-1964) American Chicago ophthalmologist. Cushman was born in Bethany, Missouri, the daughter of Andrew F. and Elizabeth Wightman Cushman. After graduation from the Bethany schools and the Lucy Rider Meyer training school in Chicago, she attended the College of Medicine of the University of Illinois which conferred upon her the M.D. degree in 1916. Following an internship and a residency in eye, ear, nose and throat at the Cook County Hospital she located in Milwaukee, Wisconsin, doing private practice while attending the Milwaukee-Downer College. Having obtained the B.S. degree from that institution in 1922, she joined the medical staff of the Tacoma (Washington) Clinic for one year. Returning to Chicago she became associated with George Suker in his office at 25 East Washington Street. After his death in 1933, she continued at the same location until the time of her passing. Attendance at many national and international meetings, study in Vienna, a "cataract" session in India, a tour of duty in Alaska all served to broaden her perspective. She was a member of all the principal national medical and ophthalmological societies, including the American College of Surgeons and the American Ophthalmological Society. She was one of six women ever to

be admitted to membership in that organization's one-hundred year history. She was president of the Chicago Ophthalmological Society in 1947 and the Chicago branch of the American Medical Women's Association in 1935. Named national president-elect of the latter organization in 1946, she was unable to serve because of poor health. She was a member of Phi Beta Kappa, Alpha Omega Alpha. Nu Sigma Phi and the Chicago Women's Club. In 1964, she was cited as a most distinguished graduate of Milwaukee-Downer College. From 1922 to 1934 she was an instructor at the University of Illinois and also served at the Post-Graduate Hospital from 1924 to 1934. In 1934, she was appointed instructor in ophthalmology at Northwestern University Medical School rising in rank to become associate professor in 1939. Although automatically becoming emeritus in 1956, she continued her interest and activities in the Eye Department where she had served for many years as director of the Motility Clinic. Her original interest at Northwestern had been in pathology and for a period she had charge of the eye pathology laboratory, later her attention was largely directed to tuberculosis of the eye, and finally disturbances of ocular motility became her prime field. In 1941, she earned the M.D. degree from Northwestern. She conducted numerous courses, spoke extensively and published some 28 articles and a *Manual.* Her textbook, *Strabismus,* published in 1956, represented the culmination of her many years of study. AJO 1964,58:506-507

Cusson, Pierre (1727-1783) French naturalist and ophthalmologist born in Montpellier. He studied at the College of the Jesuits and entered their order, but withdrew five years later, and then, at the age of 23, began to study medicine. He received his medical degree in 1753. He was commissioned by the French government, in 1754, to study in Spain the flora of that country. While in Spain, he became extremely obese, and so resigned his botanical commission and returned to Languedoc, where he practiced for five years at Sauve. Moving to Montpellier, he taught anatomy and botany in that city for some time. In 1778 he was made professor of mathematics at the Academy of Montpellier. He was a bitter opponent of Daviel's new treatment for cataract by extraction. In 1779 he published a "mémoire" entitled "*Remarques sur la Cataracte*" in which he promulgated his own peculiar views regarding "maturité de consomption" and "maturité d'exfoliation," and in which he strongly favored depression as opposed to extraction. American Encyclopedia of Ophthalmology, Vol.5,p.3601-3602. Albert

Custodis, Ernst (1898-?) German ophthalmologist. He received his MD in Bonn University 1924 with the thesis *Geschwülte der Ureteren* and became Lecturer 1933 (theme: *Die essentielle Bindehautschrumpfung*) in Düsseldorf later Professor at the Düsseldorf Academy (now University). He had been a pupil of Hoffmann in Aachen (Aix-la-Chapelle), of Grunert in Bremen and of Stock in Tübingen before moving to Düsseldorf. Kürschners Gelehrten- Kalender 1966,p.353; F. Hollwich Ophthalmologenverzeichniss 1964,p.67.JPW

Cutter, George Rogers (1840-1891) American ophthalmologist and linguist of New York City. He was house surgeon of the New York Eye and Ear Infirmary, 1867-68; assistant surgeon, 1868-75; and surgeon from 1875 to his death. Cutter published an English translation of Frey's *Histologie* (1876) and "*A Dictionary of the German Terms Used in Medicine*" (1879).He became a member of the American Ophthalmological Society in 1887.He was a well-read man, both in general and medical literature, spoke several languages fluently, did much translating for medical journals, and wrote on a wide variety of subjects. American Encyclopedia of Ophthalmology, Vol.5,p.3604-3605.

Czapski, Siegfried (1861-1907) was a German instrument maker, successor of →Abbe at Carl Zeiss Company, and researcher who invented a corneal microscope in which binocular vision is obtained by using a combination of two microscopes. He wrote "*Über neue Arten von Fernrohren, insbesondere für den Handgebrauch.*" Deutsche Mechaniker Zeitung 1895,5,49ff ; "*Theorie der optischen Instrumente nach Abbe*". Breslau 1893. The Ophthalmoscope, London 1907,p.530.

Czechowicz-Janicka, Krystyna (1934-) Female Polish ophthalmologist, since 1992, Professor and Chairman of the Ophthalmology Department at the Medical Centre of

Postgraduate Education in Warsaw. Czechowicz-Janicka graduated in medicine from the Jagiellonian University in Cracow in 1957. She studied ophthalmology under Prof. Wilczek from 1958. In 1964 she took up an ophthalmology course under Prof. Arkin at the Medical Centre of Postgraduate Education in Warsaw. She received her MD 1958, Jagiellonian University and studied ophthalmology under Prof. Wilczek from 1958-1964. She became an ophthalmologist 1964, Jagiellonian University. From 1964 to 1970 she took up an ophthalmology course under Prof. Arkin at the Medical Centre of Postgraduate Education in Warsaw. Czechowicz-Janicka obtained the doctor's degree in medical sciences in 1968 (thesis: *"Correlation between the visual field and adaptation in glaucoma suspects and primary open-angle glaucoma patients"* - Klin. Oczna 1971, 41:655) and qualified as Assistant Professor in 1978 (thesis: *"Computer-assisted methods for glaucoma diagnostics"* - Klin. Oczna 1978, 48:9). Since 1992, Professor and Chairman of the Ophthalmology Department at the Medical Centre of Postgraduate Education in Warsaw. Professor Czechowicz-Janicka is President of the Warsaw Section of the Polish Ophthalmological Society (1987-1993), President of the Computer Science Section of the Polish Ophthalmological Society (1993-), President of the Polish Society of Glaucoma Prophylaxis (1999-), member of the European Glaucoma Society (1992-), member of the European Society of Cataract & Refractive Surgeons (1994-). She was given an award by the Polish Ophthalmological Society for her publications on the measurements of retinal vascular width with the use of computer-assisted methods (1975), by the Polish Academy of Science for her publications on the problems of logical diagnosis in medicine (1976), and by the Polish Ministry of Health for the handbook *"Selected problems of contemporary ophthalmology"* (1991). She is Author and Director (since 1997) of the National Glaucoma Prevention Programme *"Poland - do not lose your sight"* supported by the Polish Ministry of Health. Czechowicz-Janicka wrote *"Primary open-angle glaucoma"* (Mako, 1996) and is editor of the handbook *"Selected problems of contemporary ophthalmology"* (CMKP, 1990)She co-authored with others: Jakobisiak, *"Clinical immunology"* (AM Warszawa 1987, 1991), Bielecki *"Surgical sutures"* (Glob, 1994)Papers (selection) *"Evaluation of the optic nerve disc in healthy subjects and patients with glaucoma with the use of a digital image transformer"* Ophthalmol. 1977, 174:574, *"Long-term visual follow-up of glaucoma patients treated with selective and non-selective beta-blockers"* - presented at the 5th Congress of the European Glaucoma Society, Ibid 84, 1996, *"Use of Retinal Thickness Analyser (RTA) for the examination of healthy persons,glaucoma patients, and diabetic patients"* - presented at the 12th Congress of the European Society of Ophthalmology, Ibid SP941, 328, 1999), *"Surface and shape of the optic disc in healthy subjects in various groups. Application of computer processing"* Ophthalmologica 1977,174:674. *"Analysis of the logical structure of diagnosis and treatment of primary glaucoma"* Meth.Inform.Med. 1983, 22:19. She belongs to the Polish Ophthalmological Society, Polish Society of Glaucoma Prophylaxis, European Glaucoma Society, European Siociety of Cataract & Refractive Surgeons. Czechowicz-Janicka is particularly interested in glaucoma. Email: jaskra@jaskra.org.pl ; KCzechowicz@jaskra.org.pl phone/fax: +48 (22) 629 71 09

Czermak, Wilhelm (1856-1906) Austrian ophthalmologist. He wrote *"Allgemeine Semiotik und Diagnostik der äusseren Augenerkrankungen"* Wien 1889; *"Die Augenärztlichen Operationen"*. (3 vols.) Wien 1893-1904; *Die topographischen Beziehungen der Augenhöhle; zu den umgebenden Höhlen und Gruben des Schädels* in: Hugo Magnus: *Augenärztliche Unterrichtstafeln*, Heft 9, Breslau 1895. Albert

D

D´Amore, Patricia A. (1951-) American biologist working on the eye and breast cancer research, Professor, Department of Ophthalmology (Pathology) of Harvard Medical School and Senior Scientist at Schepens Eye Research Institute. She graduated from Regis College, Weston, MA in 1973 (B.A.) and studied in the Graduate School of Boston University with Ph.D. granted in 1977; she further studied at Northeastern University, Boston and received MBA in 1987. She worked at the Johns Hopkins School of Medicine, as a Postdoctoral Fellow (1978-1979) and an Instructor (1979-1980), Assistant Professor (1980-1981) and then at Harvard Medical School as Assistant Professor (1982-1988) and Associate Professor (1989-1998). She has been a Professor of Ophthalmology and Pathology since 1998. She has been on many Committees of National and Professional

Organizations and of many Medical Schools. She also chaired the Gordon Research Conference in 1999. She has trained many graduate students, post-doctoral fellows and surgical fellows at Boston and Harvard Universities. Her major research interest has been vascular growth control, molecular control of growth factor expression, pathogenesis of vasoproliferative eye diseases and cell-cell interactions. She has published more than 80 original papers and more than 40 review articles in these fields. On the basis of her expertise, she has been invited speakers and lecturers on many occasions in the U.S. and abroad. Some examples of her many publications are "*Blood vessel formation: what is its molecular basis?* Cell 87: 1153, 1996", "*Endothelial cells modulate the proliferation of mural cell precursors via platelet-derived growth factor-BB and heterotypic cell contact*. Circ. Res. 84: 298, 1999" , "*Blood vessel maturation: vascular development comes of age*. J. Clin. Invest. 103: 157, 1999" and "*Angiogensis and growth factors*. in (edts) Zimmerman T. et al. *Textbook of Ocular Pharmacology*, Raven Press, New York, 2000". Honor awards embrace Lamport Award of the Microcirculatory Society (1977), Meyers Honor Award for Research in Ophthalmology (1979), Cogan Award from the Association for Research in Vision and Ophthalmology (1993). Alcon Research Institute Award (1994) and Jules and Doris Stein Research to prevent Blindness Professorship (1998). (Schepens Eye Research Institute, 20 Staniford Street, Boston, MA 02114. U. S. A. phone:+1-617-912-2559; fax: +1-617-912-0128; e-mail: pdamore@vision.eri.harvard.edu)

da Costa *see* **Costa, Placido da**

da Silva, Manoel A. *see* **Silva, Manoel da**

Daça de Valdes *see* **Valdes, Daça de**

Dahalan, Alias (1950-) Malaysian Ophthalmologist, Former Head of the Department of Ophthalmology, University Kebangsaan Malaysia. He graduated from the University Malaya with MBBS and obtained his MS (Ophth) from the University Kebangsaan Malaysia (UKM) in 1988. He further studied for one year under Prof. August Deutman at the University of Nijmegen(the Netherlands), specializing in vitreo-retinal surgery. He served the Ophthalmological Society as Committee Member (1988-1990), as the Secretary-Treasurer (1990-1993) and the Chairman (1997-1999). (SM)

Dalbey, James William (1863-1908) American ophthalmologist. He entered Illinois College, at Jacksonville, Ill., taking the scientific course, in which he was graduated in 1885. On this occasion he was class orator. While a student in Illinois College he became acquainted with Dr A. E. Prince, of Springfield, Ill., but at that time conducting, together with his father, a sanitarium at Jacksonville. The acquaintance ripened into warm friendship, and, because of the influence of "Doctor Arthur, " young DaIbey determined to study medicine. At first he took two courses of medical lectures at the University of Michigan, then proceeded to New York, where he took a supplementary course and received his degree in 1888. Serving for the following eighteen months as assistant to Dr. A. E. Prince, at Jacksonville, he then moved to Cedar Rapids, Iowa. Here, though a total stranger at the outset, he soon had an excellent practice. For fifteen years he was a partner of Dr. Frank Carroll. On the recommendation of Drs. John Rauch, David Prince, and George N. Kreider, he was appointed Lecturer in Ophthalmology and Otology in the Medical Department of the State University. Two years later he was elected full professor, and in 1902 Professor Emeritus. He was twice elected delegate to the American Medical Association from Iowa. American Encyclopedia of Ophthalmology, Vol.5,p.3732-3733.

John Dalrymple

Dalrymple, John (1803-1852) British ophthalmologist, born in Norwich, England. He studied medicine in Edinburgh. He specialized in ophthalmic surgery and in 1832 was elected assistant surgeon to the Royal London Ophthalmic Hospital, becoming full surgeon in 1843. Dalrymple wrote two important treatises on the anatomy and pathology of the eye: "*The anatomy of the human eye.*" London 1834 and "*Pathology of the human eye*". London 1852. American Encyclopedia of Ophthalmology, Vol.5,p.3733, Albert

Dalton, John (1766-1844) British scientist. Founder of the atomic theory of chemistry, and discoverer of the so-called Daltonism, or color-blindness. He was born at Eaglesfield, near Cockermouth, Cumberland, England. At the age of twelve he was teaching school and at fourteen and fifteen he was working on his father's farm. In 1781 he removed to Kendal, where he became assistant to his cousin, George Bewley, who was master of a school for boys and girls at that place. During all this time he studied Greek, Latin, mathematics, and, especially, natural philosophy. His most important writings are: "*Meteorological Observations and Essays*" (1793) 2nd ed.1834 ; *New System of Chemical Philosophy* (2 vols.) London 1808-1810 of which volume 1 only, had a second edition in 1842; "*Elements of English Grammar*" (1801) "*Extraordinary Facts Relating to the Vision of Colors*" (in: *Memoirs of the Literary and Philosophical Society of Manchester*, Vol. 28,1798). The last named article - though written by a man who was not even a physician - is one of the immortal classics of ophthalmology, because therein is presented, for the very first time on record, an account of the so-called color-blindness, an affection which now "rejoices" in as many appellations as there are colors in the spectrum, and more (e. g., Daltonism, dyschromatopsis, chromatopseudopsis, parachromatism, etc., etc.). An interesting story is related of one of the ways in which young Dalton's attention was directed to the very important subject of Daltonism. As a mere boy he happened to be present at a review of troops. Hearing those about him remarking on the beautiful military costume, he inquired "in what the color of the soldier's coat differed from that of the grass on which he trod?" The laughs and derisive shouts which greeted this extremely earnest request for information set Dalton to thinking and experimenting. He found himself unable to distinguish more than three of the spectrum colors: blue, purple, and yellow. "That part of the image which others call red, appears to me little more than a shade or defect of light; after that, the orange, yellow and green seem one color, which descends pretty uniformly from an intense to a rare yellow, making what 1 should call different shades of yellow. In 1833 the Government conferred upon Dalton an annual pension of £ 150, which, three years later, was raised to ? 300. A bust in his honor, which cost £ 2000, and which came from the hand of Chantrey, was placed in the entrance hall of the Manchester Royal Institution. In 1834 he received from the University of Edinburgh the degree of LL.D. the only degree that was ever conferred upon him. In April, 1837, he was stricken with paralysis. In the spring of the following year he received a second stroke, and, two years later, a third. On the morning of May 27, 1844, he fell from his bed, and was found lifeless by his attendant. He was buried in Ardwick Cemetery, near Manchester. American Encyclopedia of Ophthalmology, Vol.5,p.3734-3735; (DSB 537-547)

Damato, Francis Joseph (1914-1986) Francis Joseph Damato was born in Malta. He was educated at St Paul's School, Valetta, and the Royal Malta University Medical School where he qualified in 1937. His brother, Pierre, became an ENT surgeon and a Fellow of the College and another brother, Emanuel, who predeceased him, was a popular general practitioner. Two of his nephews also took up medicine and one of them, Bertil Damato, became FRCS. Francis Damato survived the bombardment of Malta during the second world war when he was a house surgeon in the emergency hospital in the dockyard area until it was forced to close. He came to the UK to train in ophthalmology in 1944, working with F.A. Williamson-Noble at the Western Ophthalmic Hospital and Sir Allan Goldsmith at the Central London Eye Hospital. He took the DO course at Oxford University in 1948, and returned to Malta in 1949 where he was appointed ophthalmic surgeon to the Central Hospital on the retirement of Professor Preziosi. He wrote various articles on the causes and incidence of blindness in Malta, including trachoma (a study stimulated by a visit to Tunisia as a young man) and diabetic retinopathy. Later he was appointed senior ophthalmic surgeon to the Maltese Health Department and the University of Malta, and consultant in ophthalmology to the Royal Navy in Malta. Damato earned following titles: MRCS and FRCS 1948; MD Malta 1937; DO Oxford 1948; DOMS London 1945. LFRCSE

Damian. A physicist of the Greek middle ages, concerning whose personality very little is known. He is supposed to have flourished in the 5th century, but even this is not certain. However, he wrote (in Greek),a work on optics which is one of the most important

still extant from the early Christian centuries. In this work he first enunciated the following elementary principles, or axioms, which he then proceeded to amplify: 1. We are enabled to see by means of certain rays, or emanations,which pass out from our eyes and strike upon surrounding objects.2.That which passes out from us, is "light." 3. This outstreaming light moves in straight lines. 4.And indeed in the form of a cone.5. This cone is right-angled. 6.The cone is not equally filled with light in all its parts. 7.All objects are seen either under a right, or under an acute, angle. 8.For which reason, things that are seen under a wider angle than usual appear to be larger than normal. 9.We see distinctly almost alone with the axial portion of the light-emanation. 10.The visual power operates, by nature, chiefly in a forward direction. 11.The point of the visual cone, within the eye, lies more to the inner side than does the pupil, and forms the center of the surface of a sphere from which the circumference of the pupil cuts off a quarter. 12. We see all visible objects either by a rectilinear expansion of our visual radiation or by a reflection or refraction thereof. 13.Concerning the relation of our visual organ to the sun. 14.In cases of reflection our visual rays form equal angles with the reflecting surface. The same thing is true concerning the sun's rays. An excellent German translation of this work of Damianus (as well as of extracts from Geminus) was made by Richard Schöne, which, together with the original texts, was published in Berlin in 1897. American Encyclopedia of Ophthalmology, Vol.5,p.3741-3742.

Dandolo, Enrico (1108-1205) Doge of Venice (the first of his name to reach that high estate) and Prince of Bohemia, the "*blind old Dandolo*" of Byron's Childe Harold's Pilgrimage. He was born as nephew of the patriarch of Grado. When a very young man, he visited Constantinople where he was arrested as a spy, and, according to some accounts, was blinded by order of the Emperor, Emanuel Comnenus of Constantinople, who subjected him to what was known as "abbasination." This consisted in compelling the victim to gaze for a long time into a polished basin, usually of brass, the concavity of which, catching the rays of the sun,concentrated these into the eyes of the victim. The pain produced by such an exposure is said to have been so great that many of the subjects of the punishment went not only blind but insane. According to the accounts of other writers, however (e. g., that of Villehardouin) Dandolo was blinded by a wound. At the advanced age of eighty-four (namely, in 1192) Dandolo was elected Doge, or Duke, of the Venetian republic, and commander-in-chief of the Venetian army and fleet. This office he held for thirteen years. While still in power (1201) the French crusaders requested assistance from Dandolo in their expedition to Palestine. The shrewd old blind ruler, it is true, granted the use of his galleys, and also provided arms, provisions and money; but, in return, he insisted that, in lieu of a money rental, the French should make an expedition, with him at the head, against Zara, a city which had recently revolted against Venetian rule. These terms, at first demurred to, were finally accepted. Cross in hand, then, this long blind nonagenarian assumed the command of the fleet. And Zara fell. About this time there came to Dandolo, asking for help for the sender's father, a message from Alexis, son of Isaac Angelus, who, once Emperor of the East, had been deposed and blinded. Dandolo listened to the messenger's entreaties, and then once more, so powerful was the old Doge's eloquence, he persuaded the crusaders once aga in to postpone their expedition to the Holy Land, and to join him in a war against Constantinople. Arriving before the capital of the East with five hundred ships, the Venetians and the crusaders found the harbor closed against them by means of an enormous chain. Once again, Bandolo was equal to the emergency. He had brought with him a pair of colossal scissors, by means of which the obstruction was rapidly divided. Constantinople was at once attacked, and the first to land, "by means of a drawbridge let down from the higher yards to the walls," and to enter the city, was Dandolo, the blind 97 year old. And the city he was entering, furthermore, was the very one in which, long years before, he had been subjected to "abbasination". The blind old fighter then proceeded to restore the blind old emperor to his former position and prosperity. At the death of Isaac, Dandolo was remembered to such an extent that he was offered the dominion of the entire East. This temptation, however, he promptly rejected. Being then urged to accept the crown of a portion of Romania, he did so, and ruled with justice and moderation. He died June 1, 1205, aged 97, one of the greatest men in history. American Encyclopedia of Ophthalmology, Vol.5,p.3742-3743.

Marcel Danis

Danis, Marcel (1883-1943) Belgian ophthalmologist who obtained his MD degree under Emile→Gallemaerts in 1907. He was appointed chief of the department of ophthalmology at the Brugmann hospital in 1925, St.Jean hospital in 1930 and St.Pierre hospital in 1935. He was professor of ophthalmology at Brussels University from 1930 until his death. Danis realized the *first* colour fundus photographs in Belgium. For a short time he was with Maurice→Appelmans secretary of the Belgian Ophthalmological Society. Danis wrote *Les Aspects Normaux et les Anomalies congénitales du Fond de l´Œil-Atlas Ophtalmoscopique*, Paris 1940 (Verriest)JPW

Danis, Pierre (1920-) Belgian ophthalmologist, born in Brussels. Danis studied at the Brussels University but, as it closed during the second World War, he obtained the M.D. degree at the Liège University in 1943. From 1943 to 1945 he specialized in ophthalmology with Léon→Coppez in Brussels and in neurology with Ludo Van Bogaert in Antwerp. From 1946 to 1948 he specialized again in ophthalmology in Geneva with →Franceschetti, and, as graduate fellow of the Belgian American Educational Foundation, in Baltimore with Woods, Friedenwald and Walsh, and in Harvard with David→Cogan. From 1948 he worked at the Department of Ophthalmoloqy of the Brussels University in the St. Pierre Hospital as assistant and later as adjunct departmental head. In 1959 he obtained the special doctorate in ophthalmology with a thesis on *retinal electrophysiology*. He was professor of ophthalmology from 1960 to 1985. The scientifical activities of his department were mainly in the fields of ocular histopathology and experimental pathology (retinal vascularisation, ultra-microscopic manifestations of ocular thesaurismoses, effects of cold upon the ocular tissues and lysosomial diseases with Marthe →Brihaye- Van Geertruyden, Daniel →Toussaint, Sylvie Pohl-Mockel and Jacques →Libert), visual physiology and physio-pathology, especially concerning the visual field and strabismic amblyopia (with Guy Meur and Liliane Conreur), and retinal electrophysiology with A.→Zanen). Pierre Danis has been treasurer, secretary of the Belgian Ophthalmological Society and of its french-speaking section. He has been a founder member of the European Ophthalmic Pathology Club and of the Neuro-ophtalmological section of the World Federation of Neurology. He was guest of honour of the Verhoeff Society. He is member of honour of the Club Gonin. (Verriest)

Dardenne, Michael Ulrich (*1924) German ophthalmologist. MD Bonn University 1950, Internal medicine under Jansen, physiological chemistry under Dirscher both in Bonn. Biological chemistry under Mandel in Strasbourg (France). Institute for experimental ophthalmology Bonn under H.K. →Müller. Founder of a private eye hospital in Bonn-Bad Godesberg. F. Hollwich Ophthalmologenverzeichniss 1964,p.69-70(extensive)

Dartnall, Herbert (1913-1998) British ophthalmologist born in Lewisham. During the Second World War, he served in Egypt and Italy as a chemical warfare adviser, supervising the disposal of Allied and Axis chemical weapons. Dartnall was a leading authority on retinal photopigments.Dartnall's first paper in the journal Nature (1938, with C F Goodeve) refined the correlation by showing that it is the fraction of photons absorbed at each wavelength that must be compared with human sensitivity. Dartnall went on to develop a method known as "partial bleaching" to separate out individual photopigments from retinas containing more than one type of pigment. Then in a theoretical paper of 1953 he introduced the celebrated "Dartnall nomogram", which proposes a single template to describe the absorption of all visual pigments when absorption was plotted against the frequency of the stimulating light. Although it later turned out that the shapes of these absorption spectra are most constant when expressed in terms of the logarithm of the frequency of the light, Dartnall's idea of a fixed template still underlies modern theoretical analyses of vision.He himself was later to say that this was a classic example of arriving at the correct answer with only half of the data, and half of that being wrong.In 1947 he became a member of the Medical Research Council's new Vision Research Unit, under the direction of Hamilton Hartridge and housed in the old London Ophthalmic Hospital, in Judd Street. It was here that he developed partial bleaching. Dartnall was appointed Director of the MRC Vision Unit in 1962, and in 1969 moved with the unit to Sussex University. His ecological and evolutionary interests led him to measure the retinal pigments of a variety of animals, including the giant panda Chi-Chi at London

Zoo. He took part in an expedition to the Comoros Islands, where he measured the pigments of the coelacanth, the "living fossil" fish.After his retirement in 1978, a continuing collaboration with younger colleagues led to the first demonstration that there are variant forms of the red-sensitive pigment of the human retina - suggesting that different people pass out their lives in slightly different perceptual worlds. He wrote or co-wrote three books on visual pigments. In 1953 he became a member of the Worshipful Company of Spectacle Makers, serving as Master from 1987 to 1989. He was a founder editor of the journal *Vision Research.*Daily Telegraph 1998, April 4.

Dastot, Adolphe (1838-1911) Belgian ophthalmologist. Dastot was a pupil of Jules→Ansiaux in the ophthalmic institute of Liège and specialized also in Paris. He was sent in mission in Berlin in 1891 to study tuberculosis with Robert Koch. He wrote in 1861 a contribution on cataract operation. He has been president of the Belgian Ophthalmological Society in 1906-1907. (Verriest)

Davenport, Robert Cecil (1893-1961) British ophthalmologist. Davenport was born in Chungking in China, the country where his father, C. J. Davenport, F.R.C.S., was a surgeon of repute. He came to England for his education at Mill Hill School, and subsequently studied medicine at St. Bartholomew's Hospital, London. He qualified in the middle of the First World War and immediately joined the Army with which he served through the campaign in Mesopotamia, by no means an easy medical assignment for a young officer. After demobilization in 1920 he returned to St. Bartholomew's where in succession he held the posts of House-Surgeon, Ophthalmic House-Surgeon, Demonstrator of Physiology, and Chief Assistant to the Ophthalmic Department. During this time he took his qualification from the University of London in 1920, and he became an F.R.C.S. in 1921. Thereafter he came to Moorfields Eye Hospital in 1922 as Clinical Assistant and won the Moorfields Research Scholarship. At this early stage of his career he acted as Consultant Ophthalmic Surgeon to the East London Hospital for Children, the Western Ophthalmic Hospital, and the Central London Ophthalmic Hospital; but it was to Moorfields that he gave his professional life, serving the Hospital in one capacity or another for 39 years. He was made a Consultant Surgeon in 1930, was Senior Surgeon in 1948, and Honorary Consultant from 1959 until his death, sitting continuously first on the Committee of Management and then on the Board of Governors from 1937 onwards. This long service to Moorfields was broken only in the Second World War, on the first day of which, with a team of Sisters and Nurses from Moorfields, he took charge of the medical arrangements at St. Dunstan's' the great institution which made itself responsible for the treatment and rehabilitation of servicemen blinded in the war, with which he remained the Principal Medical Consultant until his death. His greatest work, however, was in his capacity of Dean of the Medical School, initially at Moorfields (1938-1948) and subsequently at the Institute of Ophthalmology (19481959). Holding this office as well as that of a senior consultant ' surgeon, he played a prominent part in the combination of the Royal London, the Royal Westminster, and the Central London Ophthalmic Hospitals to form the new Moorfields Eye Hospital, and in the founding of the Institute of Ophthalmology. In addition, he took a wide interest in the broader activities of ophthalmology. Joining the Ophthalmological Society of the United Kingdom in 1922, he served as a Secretary from 1934-36, was a Member of the Council from 1936-39, a Vice-President from 1948-51, and President from 1958-60. He was also President of the Section of Ophthalmology of the Royal Society of Medicine from 1955-57; was on the Council of the Faculty of Ophthalmologists from its inception in 1948 until 1960; and in the whole post-war period until his death he was the representative of Great Britain on the International Federation of Ophthalmological Societies.

Davids, Bernd (1909-?) German ophthalmologist. Kürschners Gelehrten- Kalender 1966,p.362. & F. Hollwich Ophthalmologenverzeichniss 1964,p.70.

Davids, Hermann (1878-) German. Teaching position in Münster/Westphalia 1920, Professor 1936. He wrote: "*Ein Beitrag z.Lehre der Magnetoperationen*"1903; "*Über traumat. Linsenluxation*"1913; "*Leitfaden f.d. Krankenpflege*," 2nd ed.1918. He also wrote 39 articles in *Graefe´s Archiv f.Ophthalmologie* and in *Knapp´sche Archiv f.*

Augenheilkunde.. Kürschners Gelehrten- Kalender 1966,p.362.; F. Hollwich Ophthalmologenverzeichniss 1964,71 (extensive).

Davidson, James (Sir James) Mackenzie (1856-1919) British ophthalmologist born in Buenos Aires where he was educated at the local Scottish school. Davidson , later received a medical training in Edinburgh, Aberdeen and London. He received his medical degree in Aberdeen in 1882. For a time assistant in surgery, he succeeded Professor Dyce →Davidson as ophthalmic surgeon at Aberdeen Royal Infirmary, a position he held until 1895. He was also ophthalmic surgeon to the Royal Infirmary, the Royal Sick Children´s Hospital and physician to the Blind Asylum. In 1897 he moved to London and from that time devoted his attention exclusively to the 1895 discovered Roentgen Rays. He published 1897 a paper in the *"Archives of the Roentgen Ray"* and from that time was one of the foremost workers on radiography. He became consulting surgeon to the X-Ray department at Charing Cross Hospital and at Moorfields, president of the Roentgen Society, president of the Radiology Section of the Medical Congress of 1913, fellow of the Physical Society etc. Davidson was knighted in 1912. As publications in ophthalmology may be mentioned: "The Electric Light Applied to the Ophthalmoscope" Lancet 1886; "Localization of Foreign Bodies in Eyeball and Orbit" in Transactions of the IX Intern. Congress in Utrecht. Many other papers where published in the Transactions of the Ophthalmological Society of the United Kingdom.AJO 2:769-770.

Davidson, William Gordon (1900-1964) British. Senior Consultant Ophthalmologist in North Lincolnshire. A Scot of birth he graduated in medicine it Aberdeen University in 1931, having won the Keith gold medal in surgery and the Dyce Davidson Gold Medal in Materia Medica. After a clinical assistantship at Moorfields he obtained the D.O.M.S. in 1934. Thereafter he was appointed to the staff of Scartho Road Infirmary and later to Grimsby General Hospital. He occupied the Chair of the Grimsby Division of the B.M.A. and 1964, the year of his death, had been invited to become the president of the North of England Ophthalmological Society. Brit.J.Ophthal.1964,48:636

Daviel being conducted to immortality

Daviel, Jacques (1696-1762) Famous French ophthalmologist. Inventor of the extraction of cataract, and, therefore, one of the greatest ophthalmologists of ancient or modern times. He was born, as the son of a village notary, at Barre, near Rouen,Normandy and died at the Hotel Balance in Geneva, Switzerland. Concerning his early education we know absolutely nothing. We do, however, know that he studied surgery both at Rouen and at Paris. In 1713 he was assistant surgeon in the army, and served in numerous hospitals. About this time the pest was brought to Marseilles by a ship returning from the Orient. The disease spread rapidly over the whole of Provence, and raged with frightful mortality. In Marseilles, of 100,000 inhabitants, over 50,000 perished. The physicians of the afflicted district called for volunteers. One of the first (and bravest) to reply was Daviel. This was in 1719. 'He had just married, and, accompanied by his young bride, he went to the afflicted district, where, day and night, he assisted the suffering and was utterly unmerciful to himself. He worked at Toulon, Arles Salon, and Marseilles. As a result of these untiring services, he received from the King a decoration which bore these words: "Pro Peste fugata." He was also appointed Surgeon-Major to a galley. In 1728 he began to devote himself exclusively to diseases of the eye, and soon had a great reputation. In 1736 he was called (in his capacity of ophthalmic surgeon) to Lisbon; in 1745 to Madrid; and, in 1750, to the Court of the Elector at Mannheim. Not, however, as an operator, however useful, will Daviel be remembered so long as ophthalmology shall endure, but as the inventor of the extraction operation for cataract. Of interest to ophthalmologists Daviel published, all told, the following writings: 1. <u>*Lettre sur les Maladies des Yeux.*</u> (Mercure de France, Paris,1748, pp. 198-221.) 2) <u>*Sur une Nouvelle Methode de Guérir la Cataracte par I'Extraction du Crystallin.*</u> (Mémoires de I'Académie Royale de Chirurgie, T. II, Paris, 1753, pp.337-352.) 3. <u>*Deux Lettres sur les Avantages de 1'0pération de la Cataracte par Extraction*</u>. ("Journal de Médecine," Paris, Fevr.,1756,PP.124-128.)4. Reponse de M. Daviel, etc. (Mercure de France Janvier 1760, T. II, PP. 172-196.) A complete treatise on ophthalmology was promised by Daviel in the 2nd item of the foregoing list. According to Moran, such a treatise was left by Daviel in MS but it has never been published or even found. American Encyclopedia of Ophthalmology, Vol.5,p.3751-3776.Albert

Davies, David Leighton (1874-1945) British ophthalmologist, born at Pencoed, Glamorgan, eldest son of the Rev. D. P. Davies. Educated at Christ College, Brecon and University College, London, he served for a period as clinical assistant in the eye department at University College Hospital. After taking the Fellowship he was appointed assistant ophthalmic surgeon at Cardiff Royal Infirmary in 1910, became ophthalmic surgeon in 1920 and consulting ophthalmic surgeon when he retired in 1937. He was also consulting ophthalmic surgeon to the King Edward VII Welsh National Memorial Association for Tuberculosis, and an official medical referee for ophthalmic cases for Monmouth and Glamorgan. He served as demonstrator and lecturer in anatomy at the Cardiff Medical School and later as lecturer in ophthalmology at the Welsh National School of Medicine, and was at one time an examiner for the D.O.M.S. of the English Royal Colleges. Davies was a member of the Ophthalmological Society of the United Kingdom and served as president of the South-western Ophthalmological Society. He was a regular attendant at the Oxford Ophthalmological Congress. After retirement Davies lived in Llandrindod Wells, Radnorshire, where he died. He earned following titles and degrees: M.R.C.S. 10 May 1900; F.R.C.S. 9 December 1909; M.B. London 1900; B.S. 1901; M.D. 1902; M.S. 1904; L.R.C.P. 1900. A selection of his publications are: *Dacryorhinostomy in treatment of lachrymal sac obstruction: results of Toti's anastomotic method*. Proc. Roy. Soc. Med. 1921, 14, 59. *Anophthalmia and microphthalmia*. Brit. J. Ophthal. 1917, 1, 415. *Chronic glaucoma*. Lancet, 1928, 1, 699. Brit. J. Ophthal. 1945, 29: 331; LFRCS 1930-1951.

Davis, Charles Huff (1875-1918) American ophthalmologist and otolaryngologist born at Lebanon Va. His training in the arts and sciences was received at the University of Tennessee. For a time he was a reporter on "The Knoxville Sentinel." Turning his attention to medicine, he received the medical degree at the Lincoln Memorial University, Knoxville, Tenn., in 1898. He at once proceeded to study the eye, ear, nose and throat in Chicago where he was appointed senior interne in the Illinois Charitable Eye and Ear Infirmary. But shortly afterward he returned to Knoxville, where he practiced as ophthalmologist and otolaryngologist. He was specialist for the Southern, Louisville and Nashville railways, and for the Aluminium Company of America, at Marysville, and for The American Zinc Company, of Tennessee, at Mascot. He was a Fellow of the American Medical Association, the American College of Surgeons, the American Laryngological Society, and a number of similar bodies. AJO 1919,2:165

Davis, Frederick Allison (1883-1970) American ophthalmologist, professor of ophthalmology at the University of Wisconsin School of Medicine. Born in Weatherford. Texas, Davis received his medical degree from the University of Pennsylvania in 1909, served a two-year internship at the hospital of the University of Pennsylvania, and spent three years in ophthalmology and otolaryngology training at the New York Eye and Ear Infirmary. Following further study in ophthalmology in London and Vienna, he entered private practice in Madison, Wisconsin, in 1914. In partnership with Corydon Dwight, Eugene Neff, and his long-time friend and associate, Peter A.→Duehr in the Davis-Duehr Eye Clinic, Davis continued in the active practice of ophthalmology until retirement in 1967 at the age of 94. Davis founded the Eye, Ear, Nose and Throat Division of the University of Wisconsin Medical School in 1925 and served as professor and chairman until 1930. With the separation of ophthalmology and otolaryngology in 1930, Wellwood Nesbit assumed the professorship of otolaryngology and Davis remained as professor of ophthalmology until his retirement in 1954. He received international recognition for the study, "*Primary Tumors of the Optic Nerve* (A Phenomenon of Recklinghausen's Disease)," and was awarded the Herman Knapp gold medal in 1939, by the eye section of the American Medical Association for this work. He had a life-long devotion to cataract surgery and was one of the first to perform and popularize the intracapsular extraction. Many of his publications dealt with cataract operations, particularly the incision and closure of the globe. He was a member of the American Academy of Ophthalmology and Otolaryngology Symposium on cataract surgery in 1953. He was a diplomate of the American Board of Ophthalmology, a member of the American Ophthalmological Society, the American Academy of Ophthalmology and Otolaryngology, the Chicago and Milwaukee Ophthalmological Societies, the American Medical Association, and the

Wisconsin and Dane County Medical Societies. He was a member of Alpha Omega Alpha, honorary medical fraternity, and Nu Sigma Nu medical fraternity, and was its national president in 1926, and honorary grand national president in 1953.AJO 1970,69:889-890

Dawson, Thomas. An 18th century English physician, of slight ophthalmic importance. He published "*An Account of a Safe and Efficacious Medicine in Sore Eyes and Eye-Lids*."(London, 1782).The medicine referred to was a salve of the nitrate of mercury, the so-called "yellow ointment". This ointment had been brought to Dawson's attention by a relative, for whom the "yellow ointment" had been prescribed, thirty years before, by a Dr. Nettleton, of Halifax. Though the composition of the salve has been altered(the yellow oxide being now employed in place of the nitrate) the name, "yellow ointment " has remained in general use. American Encyclopedia of Ophthalmology, Vol.5,p.3777.

Daza de Valdes *see* **Valdes, Daça de**

De Dominis, Marco Antonio (1560-1624) Yugoslav scientist, later archbishop of Split. De Dominis was born in Rab (Yugoslavia) and died Rome (Italy). He studied in Padua and later lectured mathematics, logic and philosophy at Verona, Padua and Bescia until 1596 becoming later Bishop and Archbishop. He wrote two works on physics: *De radiis visus et lucis in vitris perspectivis et iride tractatus* ... Venice 1611 (The best early modern explanation, or elementary theory, of the rainbow) and *Euripus seu de fluxu et refluxu* (about tides). Albert

De Jaeger, Antoine (1889-1972) Belgian ophthalmologist. De Jaeger studied medicine in Leuven and ophthalmology in Ghent (with Antoine Hoorens in the H. Familiekliniek), in Paris and in Lausanne (with →Gonin). When he had to leave the St. Jan hospital in 1956 because of the age limit, he founded an own eye-clinic where he worked until his death. He published on *strabismus and amblyopia*, *hair as suture material*, and sulfonamides (report for the Belgian Ophthalmological Society in 1946). He was a well known art collector.(Verriest)

De la Garde, Philip Chilwell (1797-1871) British ophthalmic surgeon. He was born in Chelsea, England and became apprenticed to the surgeons Robert Patch, Samuel Peppin, and Samuel Barnes. De la Garde then trained and practiced surgery in London at St. Bartholomew's Hospital. He authored: *A treatise on cataract* London 1821. Albert

De Laey, Jean-Jacques (1940-) Belgian ophthalmologist. De Laey was born in Bruges. He is the nephew of André De Laey (1914-1982), also an ophthalmologist. He obtained his M.D. degree at the Ghent University in 1966 and thereafter began immediately to specialize in ophthalmology in the department of Jules Francois. He obtained the special doctorate in ophthalmology in 1977 (with a *fluo-angiographic study of the choroid in man*) and succeeded to Francois in 1979 as professor of ophthalmology. Later on he was elected chairman of the Medical Council of the Ghent Academic Hospital. De Laey's principal scientifical and clinical interest lies in *fluorescein angiography* and more particularly in normal and pathological choroid vascularisation. He described carefully the clinical characteristics of a great number of *fundus diseases as acute vascular accidents*, *juvenile and senile macular degeneration*, *traumatic angiopathy*, *tapetoretinal degenerations*, *acute placoid pigment epitheliopathy*, *cystoid macular edema*, *diabetic retinopathy*, *choroidal neovascularisation*, *central serous choroidopathy*, *choroidal detachment*, *birdshot chorioretinopathy* etc. On the other hand he wrote on the *treatment of diabetic retinopathy* and of *malignant melanoma of the choroid*. Some intoxications received also his attention. He made with Neetens a report on ocular examination in childhood for the Flemish section of the Belgian Ophthalmological Society. De Laey cares much about postgraduate training and organized a number of courses. He organized also international conferences in Ghent as the *International symposium on fluorescein angiography* (1976) and the *Joint meeting of the International Society for Genetic Eye Diseases* and the *International Society for Pediatric Ophthalmology* (1984). He is managing editor of the journal "*International Ophthalmology*" and board member of "*Ophthalmic Paediatrics and Genetics*", "*Klinische Monatsblätter für Augenheikunde*"

and "*Ophthalmic Literature*".De Laey brought some minor changes to the staff that he inherited from Francois. (Verriest)

De Lantsheere, Joseph (1862-1926) Belgian ophthalmologist. De Lantsheere obtained his M.D. degree in Leuven. He specialized in ophthalmology with →Venneman in Leuven, →Lebrun in Brussels (Institut Ophtalmique du Brabant), →Panas in Paris, →Hirschberg in Berlin and →Fuchs in Vienna. He worked not only for the railways but also in an own clinic. He was a specialist of the *problems relating to professional aptitude and to disability from work accidents* (he wrote on this in 1904 an excellent report for the Belgian Ophthalmological Society). He wrote also on other subjects as *lead intoxication* (1899), *keratoconus* (1901) etc. He was the treasurer of the Belgian Ophthalmological Society during 25 years. (Verriest)

De Lapersonne, Felix *see* **Lapersonne, Felix de**

Geminiano De Ocampo

De Ocampo, Geminiano T. (1907-1987) Filipino Ophthalmologist, Professor Emeritus of University of the Philippines. Director and Founder of the De Ocampo Eye Hospital (1952). He was born in Malolos, Bulacan on September 16, 1907, graduated with First Honor from Malolos Elementary School (1921) and Bulacan High School (1925). He then studied at the University of the Philippines (UP) and graduated from the University in 1932, and received his M.D. degree. He extended his higher studies as Kellogg Fellow in Ophthalmology at Johns Hopkins and Columbia University (1946-47). On his return home, he was appointed the Clinical Research Professor of Ophthalmology, University of the Philippines, and founded Philippine Eye Research Institute, U.P. and served as the First President during 1965-1972. He devoted his lifetime to academic and professional pursuits for the development and progress of Philippine Ophthalmology, which we are proud of today. He is indeed the Father of Modern Philippine Ophthalmology: he espoused the eye specialty in the Philippines to become a separate and distinct entity. He infused Filipino nationalism and pride amongst Filipino ophthalmologists in the frontiers of clinical ophthalmology and basic researches. With his wisdom, inspiration and encouragement he paved the way for Filipino ophthalmologists to excel in their chosen goals. He kept Philippine ophthalmology abreast with that of the western world by introducing FIRSTS in almost every phase of ophthalmology. In 1948, he introduced the use of sutures in cataract surgery; in 1949 he performed the first successful corneal transplantation; in 1952, he opened the first eye hospital; in 1955 he founded and established the first research institution for basic ophthalmology- the Philippine Eye Research Institute – thereby providing a venue for Filipino ophthalmologists to forge ahead in ophthalmologic research and science. He authored and presented 150 scientific articles on ophthalmology here and abroad. But foremost of all, he trained and produced Filipino ophthalmologists, who are now at the helm of present day ophthalmology, who can stand at par with any in the world. He was a great and respected teacher. He wrote a total of 404 articles and books in 7 volumes: they covered medical, clinical, experimental and theoretical Ophthalmology and Otolaryngology. There are also subjects of research, the practice and art of medicine, blindness and the community medical organizations. Noteworthy are the books on the following, i.e. "*System of Medical Research*. 1980", "*Theoretical Bio-ophthalmology*, posthumous publication", "*Dr. Rizal-Ophthalmic Surgeon*" and " *Award Winning Medical Research- Selected papers of Dr. Geminiano de Ocampo*". They are currently in possession of "Geminano T. de Ocampo Medical Research Foundation, Inc. " founded in memory of Dr. de Ocampo. The foundation is for promotion of Eye Research in the Philippines. He represented the Philippines in many international societies, and he felt importance of friendship, exchange and cooperation among Ophthalmologists of the Asia-Pacific Region. He met Dr. John Holmes of Hawaii, Dr. Ronald→Lowe of Australia in Manila in 1958, and they discussed the possibility of a new Asia-Pacific Academy of Ophthalmology (APAO). Thus, the New Academy was founded in 1958 during the 18th International Congress of Ophthalmology in Brussels, with encouragement and blessing of the International Council of Ophthalmology. The first Congress of the Academy was held in Manila, and Dr. deOcampe served as the first Academy and Congress President in 1960. For the memory of this outstanding Ophthalmologist, the APAO established de Ocampo Lectureship to be given to those who

accomplished distinguished contributions to Ophthalmology. Dr. de Ocampo is recipient of three presidential awards – the Cultural Heritage Award, Life Scientist Award and Science Leader Award – and 30 medical research awards from 1955 to 1980 from the Philippine Medical Association, Philippine College of Surgeons, Philippine Society of Ophthalmology and Manila Medical Society and a member of many prestigious honor scientific organizatons locally and abroad. The APAO granted him its highest honor the "Jose Rizal Medal" in 1968. Dr. Geminiano de Ocampo, although rigidly an academician and scientist at heart, has always nurtured compassion and social concern for the less fortunate segments of our countrymen. He initiated the first "Sight-Saving Week" in the country and championed the theme that "*no Filipino shall go blind*" without the benefit of expert eye care. Considered "*Father of Modern Philippine Ophthalmology*" and truly an outstanding product of this generation and century in Asia, he instituted and left for the present and future generations of Filipino ophthalmologists a lasting legacy of ideals, principles and a unique approach in solving ophthalmological problems.(by Espiritu, R.B.→Salceda S.R. and Leticia de Ocampo Elegado)

de Schweinitz George Edmund (1858-1938) American ophthalmologist, the son of Bishop Edmund de Schweinitz, of the Moravian Church, Bethlehem. He was educated at Bethlehem Moravian College and at the University of Pennsylvania Medical School, graduating in 1881. As an ophthalmologist de Schweinitz won international fame. He had been professor of ophthalmology at Jefferson Medical College and in the University of Pennsylvania. At various times he was President of the American Medical Association, the American Ophthalmological Society, the Academy of Natural Sciences and the American Philosophical Society. His well known text-book (*Diseases of the eye* Philadelphia 1892) has passed through many editions and is popular in England as well as in the United States. He also co-edited (with B.Alexander Randall) : *An American text-book of diseases of the eye, ear, nose and throat* Philadelphia 1899 and, with Wilder, Ball and Weeks *The Relation of the Cervical Sympathetic to the Eye* Chicago 1904. In 1930 he was awarded the Leslie Dana Medal for his work on prevention of blindness. In 1923 he delivered the Bowman Lecture before the Ophthalmological Society of the United Kingdom. Its title was, " *Concerning certain ocular aspects of the pituitary body disorders, mainly exclusive of the usual central and peripheral hemianopic field defects*," 88 pages of the transactions are given to this noble effort. And since then he has been one of the small hand of honorary members of the Society. De Schweinitz served in France during the great war as Lieut.Colonel in the American Medical Force. He retired from active practice about 1936 when his health began to fail. A mere catalogue of de Schweinitz's attainments gives a quite inadequate idea of his personality and of his outstanding position, not only in the history of ophthalmology but also of medicine in the United States. He was not only a great surgeon but also a great physician, and it was eminently apt that he should have held the presidency of the Philadelphia College of Physicians. His life was unremittingly devoted to ophthalmology and to the encouragement of medicine in the famous and old established University of Pennsylvania. An object which he had much at heart was the enrichment of the magnificent medical library in Philadelphia, and much of the time of his annual visits to this country was devoted to seeking out medical incunabula in London and elsewhere. BJO 1938, 22:697-698.JPW

De Smets, Alexandre (1862-1947) Belgian ophthalmologist. De Smets studied medicine in Leuven and in Ghent, ophthalmology in Ghent (with→Deneffe) and in Paris (with →Galezowski, →Landolt and →Masselon). He settled in 1884 in Antwerp. He published on *ocular hygiene in schools* (report for the Belgian Ophthalmological Society in 1898), *proptosis by hyperthyroidism* (1902, 1906), *spasmodic myopia* (1904), *vision in deaf-mutes* (1910) etc., but mainly on *history of medicine and ophthalmology*. He was a bibliophilic collector. As he conveyed people to the dutch frontier during the first World War, he was condemned to death by the German occupant, but was saved by the 1918 armistice. (Verriest)

De Vincentiis, Carlo (1849-1904) Italian ophthalmologist of Naples. De Vincentiis received his M.D. at the University of Naples in 1871. He became professor of

ophthalmology at Palermo in 1877. In 1887, he returned to Naples, where he taught at the university and practiced ophthalmology until his death. He wrote: *Saggio di blefaroplastie*. Napoli: R. Stab. Tipografico del Comm. Francesco Giannini, 1883. Albert

De Wecker *see* **Wecker, Louis de**

Dean, H. Johnson (1869-1910) American ophthalmologist and oto-laryngologist of Museatine, Iowa. 'He was born in Museatine. After his graduation from the high school at Museatine, he attended for a time the State University. His medical degree was received from Jefferson Medical College, Philadelphia, Pa., in 1890. He was resident physician at the Jefferson Medical College Hospital in 1891, and, later, resident physician to the Orthopedic Hospital and to the Infirmary for Nervous Diseases,also in Philadelphia. He was Clinical Assistant at the Wills Eye Hospital, Philadelphia, from 1893 to 1898. In 1898 he returned to his native town, in which he practiced as ophthalmologist and oto-laryngologist until his death. At the time of his death he was Eye, Ear, Nose and Throat Surgeon to the Hershey Memorial Hospital, Museatine,Iowa. Dr. Dean was a member of numerous medical societies and other scientific associations. American Encyclopedia of Ophthalmology, Vol.5,p.3785.

Debecker, Julien (1937-1974) Belgian ophthalmologist. Debecker obtained the M.D. degree at the Brussels University. From 1964 to 1967 he specialized in ophthalmology under Pierre→Danis and did research work in the Laboratory of physiopathology of the nervous system of Jean E. Desmedt. He obtained the special doctorate in 1967 with a thesis on the *evoked cerebral potentials and their use in human psychophysiology*. Since 1967 he was full time in the Laboratory of physiopathology of the nervous system, where he teached neurophysiology. (Verriest)

Antoine Deidier

Deidier, Antoine (1670-1746) French general surgeon of the eighteenth century, who had a considerable reputation as an oculist. He received his medical degree at Montpellier in 1691, and was immediately appointed to the chair of chemistry in that institution.In 1720 he was sent to Marseilles to treat patients suffering from the pest. In 1732 he returned to Montpellier, where, four years later, he died. His most important works are, 1. *Chimie Raisonnée*. (Lyons,1715.) 2. *Anatomie Raisonnée du Corps Humain*. (Paris,1742.) 3. *Consultations et Observations Médicinales.* (Paris, 1754.)Among his "*Consultations*" occur the following on oculistic subjects: "*Upon a Lachrymal Fistula,*" "*Upon an Ophthalmia*," *"Upon an Incipient Gutta Serena*" "*Upon an Involuntary Running of Tears,*" "*Upon an Enfeeblement of the Sight, Consecutive to a Blow with a Sword,*" "*Observations upon a Cancer of the Eye*." American Encyclopedia of Ophthalmology, Vol.5,p.3805.

Dekking, Henri Marinus (1902-1966) Dutch ophthalmologist who qualified as a doctor in 1927, and was appointed assistant at the Eye Hospital (Inrichting voor Ooglijders) at Groningen, where the director Prof. Dr. G. F. Rochat stimulated his interest in diagnostic photography. Within three years he had constructed an apparatus for the photography of the corneal surface based on the ring figure of Placido; he wrote his dissertation on this subject and in 1930 obtained his doctorate *cum laude*. The same Year he became director of the Eye Hospital at Nijmegen. He published a number of articles on infra-red and colour photography of the eye and in 1935 collected this work in a book: "*Photographic Investigation of the Eye*" Dekking also found time for experiments in measuring the opacity of the anterior segment: he developed his opacity-meter, based on the principles of nephelometry, and after many modifications this apparatus was perfected in 1948. In 1932 he proposed a modification of the ophthalmoscope, and the following years investigated the influence of infra-red rays on the retina. During the war years he constructed an adaptometer with automatic registration. His findings with this apparatus were expressed in a theory on the mechanism of retinal adaptation. After the war Dekking worked for a year in Indonesia, where he took up a temporary appointment as professor in Batavia. His original publications on the cause of camp-eyes date from this period. In 1947 Dekking succeeded his teacher Rochat as professor at Groningen, here he found a difficult situation because after the war it was almost impossible to find permanent staff for the University clinic and the facilities for clinical research were inadequate. Despite his almost overwhelming clinical duties, Dekking nevertheless found time to develop his work in the

field of diagnostic photography and his original recording apparatus for audio-visual documentation. His clinical publications, which constantly illustrated his talent for the development of new apparatus for diagnosis and for operative treatment, can be found in Ophthalmologica (formerly Zeitschrift für Augenheilkunde[JPW]), of which he was one of the editors-in-chief, and also in the periodicals on medical photography. From 1952 onwards, apart from a break of two years, he was chairman of the Dutch Society for Scientific Films. In 1951 and 1952 he was chairman of the Dutch Ophthalmological Association, and at the same time, at the request of the late Professor→Weve undertook the editorship of Ophthalmologica. Brit.J.Ophthal. 1967, 51:288

Del Monte see **Monte, Alberto del**

Delafield, Edward (1795-1875) American obstetrician and pediatrist,who devoted considerable attention to ophthalmology. He received the degree of Bachelor of Arts at Yale College in 1812 and his medical degree at the College of Physicians and Surgeons in the City of New York in 1815. In company with Dr. John Kearney →Rogers he studied for a time in Europe, and, after his return to New York, these two men together organized (1820) the *New York Eye Infirmary*. Here he practiced as ophthalmologist, and lectured on diseases of the eye for many years. He wrote but little, being far too busy with other matters. A few reports by him, however, appear in the early volumes of the American Ophthalmological Society, of which he was one of the founders.He wrote: *Biographical sketch of J. Kearny Rodgers,M.D* New York 1852. He also edited one American edition of →Travers *"On the Eye"*. American Encyclopedia of Ophthalmology, Vol.5,p.3806-3807.

Delarue, François (c.1785-1841?) French physician. Born in Mauzot, Puy-de-Dôme, France, about 1785 he studied medicine at Paris, and there received his medical degree in 1810. He settled in Paris, became physician to the Bureau of Charity, and gave free medical lectures especially on diseases of the eye. Among his writings the most important are: *"Avis sur le Traitement des Maladies Vénériennes, etc."* (Paris, 1816) ; *"Mémoire sur les Bons Effets des Attouchements avec la Pierre Infernale,* etc." (Paris 1823) *"Le Vade-Mecum ou, Guide de Chaque Complexion pour Prolonger la Vie"* (5 ed.,Paris 1829). His only ophthalmologic composition is *"Cours Complet des Maladies des Yeux, Suivi d'un Traité d'Hygiene Oculaire "* (Paris, 1820). This work lacks very much of being a "Cours Complet"exhibiting as it does vast lacunae where important matters ought to be. Nevertheless, it is clear, succinct, and, so far as it goes, highly practical. The date of Delarue's death is not procurable. He is known to have been alive in 1840. American Encyclopedia of Ophthalmology, Vol.5,p.3808. Albert

Delens, E. (1839-1917) French honorary surgeon who devoted himself exclusively to ophthalmology. Delens was given an independent ophthalmic service at the hospital Lariboisière, and remained its director until his retirement in 1903. He wrote in Duplay & Reclus treatise a valuable summary of ocular pathology.AJO,1:293 ; Archives d´Oph.,vol.35,p.704.

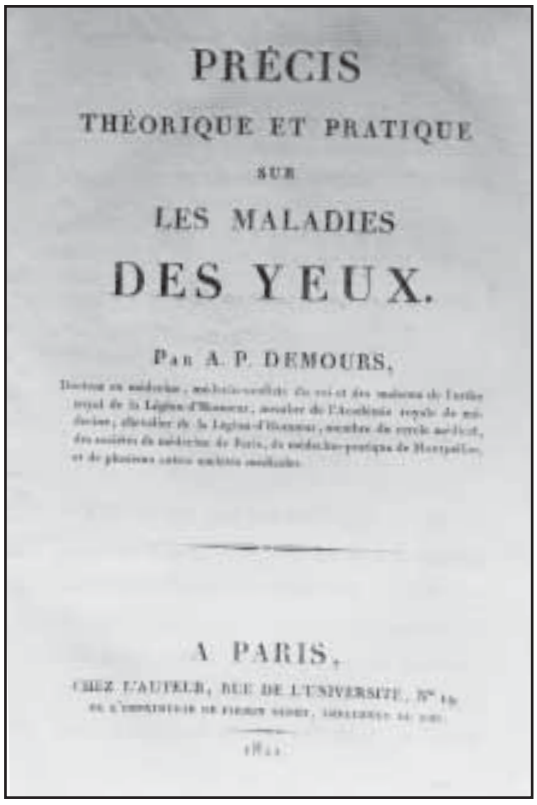
Delmarcelle, Yves (1928-) Belgian ophthalmologist, son of Antoine Delmarcelle, himself ophthalmologist, became M.D. in Liège and made an academic career at the National Fund for Scientifical Research and at the Liège University. He wrote about 50 papers mainly on glaucoma, hereditary ocular conditions and ocular biometry (1957). Delmarcelle authored with J. François, F. Goes and others *Biometrie Oculaire Clinique*, Brussels 1976 (Verriest) JPW

Delpech, Jacques Mathurin (1777-1832) One of the pioneers of orthopedic surgery, and the first (in 1816) to perform a subcutaneous section of the tendo Achilles. He studied for the most part in his native city of Toulouse, but received his doctor's degree at Montpellier in 1801.In 1813 he became a professor in Montpellier. In this city, too, he erected, at his own cost, an orthopedic institute in which he exhibited a well-nigh incredible activity in surgical orthopedics. One day, while on his way to this institute, in which he had done so much for science and humanity, he, as well as his coachman, was shot and killed by a patient on whom he had operated for varicocele. The horses, running away, brought the

carriage, with its two dead occupants, to the very gates of Delpech's orthopedic institute. Delpech's more important writings are *Clinical Surgery at Montpellier* (1823-28) and *On Orthomorphia* (1829). Though he wrote but little relating to the eye, he is to be remembered by ophthalmologists, because, by his orthopedic operations in general and his subcutaneous tenotomies in particular. American Encyclopedia of Ophthalmology, Vol.5,p.3809-3811.

Demarquay, Jean-Nicolas (1811-1875) French physician who wrote a great variety of pathologic, surgical and other medical works. He also co-authored two publications with →Giraud-Teulon and Saint-Vel. In ophthalmology, he wrote: *Des tumeurs de l'orbite* Paris 1853, *Traité des tumeurs de l'orbite*. Paris 1860. Albert.

Democritus of Abdera (About 470 B. C.) A Greek philosopher, the teacher of Leucippos, and the founder-in-chief of the Atomistic theory, which is the corner-stone of modern chemistry and physics. He is chiefly remembered for this "Atomistic theory." That theory was, in brief that the entire universe is composed of extremely minute bodies, which are not merely invisible, but also indivisible(hence, the name *a-tom*). The qualities of none of these atoms can ever be changed, but only their position. According to the arrangement of the atoms, the various sorts of substances are produced, as well as the various processes, or visible changes which occur in and among those substances. Democritus dissected many individuals of numerous species of animals, and published a work on the anatomy of the chameleon. He studied the pulse in great detail, theorized upon the cause of epidemics and developed very largely the physiology of reproduction and of all the special senses, particularly sight. His theory of the nature of vision is extremely interesting. It is, of course, a natural outgrowth from, or corollary to, his atomistic theory of the universe. In his view, the soul itself, as well as the various (perhaps one might say, according to him, other) portions of the body, is composed of atoms, only that the atoms of the soul are finer and more subtle than any of the others. He also thought that, from every object in the outer world, atoms were being eternally thrown off, and that these atoms arranged themselves into tiny pictures of the object from which they had proceeded. These pictures, flying in all directions, bombarded everything that lay within their path, including, of course, eyes. Some of the pictures, entering the organ of sight by way of the pupil, were, inside the eye, perceived, or "seen," by the various intra-ocular "humors," or fluids. These fluids, or intra-ocular humors, Democritus took to constitute the essential organ of vision, the sight-perceiving apparatus. They were, therefore, to him what the retina is to us. It is said that Democritus, in order to become the more perfectly master of his intellectual faculties, put out his eyes by means of a burning-glass. The story, however, is not generally credited. American Encyclopedia of Ophthalmology, Vol.5,p.3813.


PRÉCIS
THÉORIQUE ET PRATIQUE
SUR
LES MALADIES
DES YEUX.
PAR A. P. DEMOURS,
A PARIS,
CHEZ L'AUTEUR, RUE DE L'UNIVERSITÉ, N° 19
Antoine Pierre Demours

Demosthenes, Philalethes (1st Century AD) Most important oculist of the first century AD, now scarcely known at all. He seems to have lived and practiced at Marseilles, and to have flourished especially in the reign of Nero. His work on ocular diseases stood as the highest authority for more than a thousand years, but is now lost completely. American Encyclopedia of Ophthalmology, Vol.5,p.3814-3815.

Demours, Antoine-Pierre (1762-1836) Famous French ophthalmologist, son of the equally celebrated ophthalmologist, Pierre →Demours. Antoine-Pierre studied medicine in general and ophthalmology in particular with his father from the time of his earliest recollection. Not so great an investigator as his father, he was, nevertheless, unlike his parent, a bold and skilful operator. In fact, his daring (and, one might well-nigh add, his success) knew but little bounds. His services were sought by patients from every land. He became ophthalmologist to Ludwig XVIII and to Karl X of Bavaria. Among his writings are the following:1. *Mémoire sur la Manière d' opérer la Cataracte*. Lu à l'Assemble, dite Prima Mensis, le 1, Nov., Paris 1784,. 2. *Ophtalmostat de Demours fils*. (Journal de

Méd.,Chir.,Pharm.,1785, tome LXIII, p. 230, and *Commentaires de la Faculté de Méd. de Paris*, 1717-1786, Paris 1803, p. 1231.) 3.*Observatioms sur une Pupille Artificielle, Ouverte tout auprès de la Sclérotique.* Paris, 1800. 4. *Traité des Maladies des Yeux, avec des Planches Coloriées représentant ces Maladies d'après Nature, suivi de la Description de l'Oeil Humain*, traduit du Latin de S. T. →Soemmering, par A.P.Demours, Médecin Oculiste du Roi. (4 vols., Paris, 1818.) The plates are very beautiful, and, for the most part, true to nature. They were the best, undoubtedly, that had appeared at the time of their publication. In this work are included hundreds of interesting and instructive case-histories, drawn from the practice both of himself (20 years)and of his father (a full half century).5. *Précis Théorique et Pratique sur les Maladies des Yeux* (Paris,1821).Demours fils had the honor of introducing into France mydriasis as a preliminary step in certain ophthalmic operations, e. g., cataract. It is likely that the practice itself was the invention of Himly. Demours died Oct. 4, 1836, from grief over the death of his son, who was drowned in the Seine. He was a very noble and affectionate man. American Encyclopedia of Ophthalmology, Vol.5,p.3815.Albert

Pierre Demours

Demours, Pierre (1702-1795) Famous French ophthalmologist, father of the equally celebrated Antoine-Pierre →Demours. Born in Marseilles, France, where his father was an apothecary, he studied medicine at Paris and Avignon, receiving his degree at the latter institution in 1728. Settling in Paris, he was soon appointed Demonstrator of the Collection of Natural History in the Royal Garden. Two years later, at the solicitation of Antoine Petit, he turned his attention to ophthalmology. In this branch he was very successful indeed as therapeutist and original investigator, translator and original writer, but not as surgeon. A great timidity seemed ever to bar him utterly from the use of points and edges; ball-terminated probes, however, and spatulas he employed without fear. Demours' discoveries in the field of ocular anatomy have rendered him immortal. These discoveries related especially to the choroid, the cornea, the vitreous and aqueous humors. He described the corneal basal membrane, and, as many believe, for the first time in history. Priority in this discovery, however, he had to dispute with Descemet, who, it would seem, defeated him. At all events, "la lame cartilagineuse de la cornée," as Demours called the structure, was entitled by other writers of the time, at first, " Demours' membrane," later, however, the "membrane of Descemet. " Today it is still know by the latter expression. Among the writings of Demours are:1. *Sur la Structure Cellulaire du Corps Vitré*.In: "Histoire de l'Académie Royale des Sciences," Année 1741, p. 60. 2. *Observations sur la Cornée*. Loc.cit. 3. *Dissert. sur la Mécanique des Mouvements de la Prunelle*. In: Mém. de l´Académie des Sciences, 1750, p. 586. 4. *Lettre à M.Petit en Réponse à sa Critique d'un Rapport sur une Maladie de 1'oeil Survenue après 1'inoculation de la Petite Virole*.(Paris, 1767.) 5. *Nouvelles Reflexions sur la Lame Cartilagineuse de la Cornée*.(Paris, 1770.) 6. *Réflexions sur une Maladie des Yeux ou l´on Indique les Véritables Causes des Accidens qui surviennent à l´0pération bien faite de la Cataracte par Extraction et ou l´on Propose un Moyen pour y Remédier.* (Jour.de Médecine, xvi, Jan., 1762, pp. 49-60.) Demours practiced as an oculist for 50 years. He became physician to the King, and Fellow of the Academy of Sciences. He died June 26,1795, leaving his work to be continued by his son, Antoine-Pierre. American Encyclopedia of Ophthalmology, Vol.5,p. 3816.Albert

Vistor Deneffe

Deneffe, Victor (1835-1908) Belgian ophthalmologist. Deneffe was born in Namur and died in Ghent. He studied medicine at the University of Ghent (M.D. in 1864) and ophthalmology under different masters including Van →Roosbroeck, →Desmarres and →Sichel. In fact ophthalmology was only of secondary interest for this man who was rather a general surgeon, an obstetrician, an historian, an humanist and even a politician as he was during many years a member of the Ghent town-council. He obtained the special doctorate in 1864 with a thesis on *bladder punction*. After teaching a free course in history of medecine, he was appointed at the Ghent University successively as professor of surgical pathology, of theoretical obstetrics (both in 1863) of ophthalmology (in 1869) and of operative medicine (in 1875). He became emeritus in 1905 but had already resigned as professor of surgical pathology in 1876 and of ophthalmology in 1899. From the ophthalmological point of view his principal merits have been the organization from 1890 of a systematical campaign against trachoma (disease from which he suffered himself since

1875) and an unique collection of antique ophthalmological and other surgical instruments (now displayed in the Museum of History of Sciences of the Ghent University). Deneffe was a member of the Belgian Academy of Medicine and its president in 1893. In 1888 he made for this society a lecture on the *perfectibility of colour vision in man*. This lecture (in which real facts are misinterpreted) has been much esteemed by the british statesman Gladstone (at that time lord-rector of the Glasgow University). In the field of ophthalmology Deneffe wrote also on *keratocentesis* (1863), *the influence of alcohol on the optic centers* (1872), the *topical use of anesthetics and antiseptics* (1883-1889), and, of course, the *history of ophthalmology*.(Verriest) He wrote : *Chirurgie antique; Étude sur la trousse d'un Chirurgien Gallo-Romain du Ille siècle*. Anvers 1893, *Chirurgie antique; Les Oculistes Gallo Romains au Ille siècle.* Anvers, Paris, Leipzig 1896, *Une Operation de Cataracte, à Tournai en 1531* Ghent 1892. van Duyse 247. The Ophthalmoscope, London 1908,p.652; Albert

Dennis, David Nichols (1858-1930) American ophthalmologist of Erie, Pennsylvania. Born in Grafton, Massachusetts, he came of old New England stock, receiving his degree from Jefferson Medical College in 1881. He had an international reputation as a writer and ophthalmic surgeon, and was noted for the number of successful operations which he had performed. His diversions were those of a cultured gentleman and they formed an integral part in his life. He had an intense love of music and of the fine arts, and had gathered an unusual and varied collection of books. Dennis was a member of many organizations, social, medical, and cultural. These included the Society of Colonial Wars of New York, the Sons of the American Revolution, the American Ophthalmological Society, the Buffalo Ophthalmological Society, the Tyrian Lodge of Masons, the University Club, and the American College of Surgeons.AJO 1931,14:69-70

Denonvilliers, Charles Pierre (1808-1872) French surgeon of Paris who received his M.D. in 1837 at the University of Paris, where he became professor of anatomy in 1849. He was renowned as a plastic and ophthalmic surgeon. He authored *Propositions et Observations d´Anatomie, de Physiologie et de Pathologie* Paris 1837, *Compendium de Chirurgie pratique* Paris 1845 (Spanish 1859) and together with Léon Gosselin (1815- ?), he also wrote *Traité théorique et pratique des maladies des yeux*. Paris 1855. Albert

Derby, George Strong (1875-1931) American ophthalmologist, a son of Hasket Derby, in whose notable professional footsteps he followed. His preliminary education was at Noble's School, after which he entered Harvard University being graduated in the class of 1896 in arts, and in 1900 in medicine. He then studied in Europe for two years following which he returned to Boston and entered into private practice. In 1916 Derby accompanied the Harvard Medical School Unit, later known as Base Hospital no 5, to France as ophthalmologist. This unit arrived in France on May 30,1917, from which time until his return to the United I States in January, 1919, he was one of the most important figures in the ophthalmological service in France and was well known by all of the eye physicians of the American Expeditionary Forces where his professional skill, organizing, ability and personal charm were conspicuously prominent. He was cited by General Pershing (1860-1948) *"for exceptionally meritorious and conspicuous services as consulting eye surgeon in the American Expeditionary Forces"*. He was connected with the Massachusetts Eye and Ear Infirmary for eight years as ophthalmic clinic assistant, ophthalmic assistant surgeon, ophthalmic surgeon, and for the past seven years as ophthalmic chief of service. To his position as Williams Professor of Ophthalmology in the Harvard University Medical School he brought the fine and forceful organization ability so well shown in his work as assistant consultant in ophthalmology with the American Expeditionary Forces. This same ability with his fine qualities as a teacher made his position of chief surgeon at the Massachusetts Eye and Ear Infirmary of untold value to that institution. He was a keen observer, positive in his convictions, and a pioneer in ophthalmology. The last of his many fine papers on ophthalmological subjects, read before the meeting of the American Medical Association, was on *"The need of medical social service in eye clinics"*. This paper clearly showed the value of his pioneer work in this particular field. This, and his work with ocular tuberculosis, light adaptation, glaucoma, and improved technique for cataract operations has been of great help to ophthalmic surgeons and their patients. His

long and excellent services to the Section of Ophthalmology of the American Medical Association as its secretary and later as its chairman make an enviable record which was added to by his notable services to the American Ophthalmological Society as a Council member. AJO 1932,15:158-159. JPW.

Derby, Haskett (1835-1914) American ophthalmologist from Boston, father of George Strong Derby. He received his training in Arts and Sciences at Boston Latin School and Harvard College.He then studied medicine at Harvard , at the University of Vienna, and at the Graefian Clinic. He received his medical degree in 1858, and began to practice ophthalmology in his native city about 1861, very soon acquiring an international reputation. He was a member of the Heidelberger Ophthalmologische Gesellschaft, and was one of the founders and once president of the American Ophthalmological Society. He served in a medical and surgical capacity during the War of the Rebellion and was for thirty years consulting surgeon to the Massachusetts Charitable Eye and Ear Infirmary. He founded in 1887 the Eye Clinic in the Carney Hospital, at Boston, and for many years was lecturer on ophthalmology at the Harvard Medical School. A clever diagnostician, he was also a calm, deliberate and successful operator, and a clear and forceful writer. He was strict in his discipline with students and patients alike, but was even more exigent still in the demands which he made upon himself. His punctuality was a matter of common remark, and he was a tireless worker. Though very undemonstrative, Dr. Derby was a man of kindly feeling and of great public spirit. He was ever busy in some great enterprise for the universal welfare. He was trustee of the Public Library and of the Children's Institutions Department at Boston. He wrote: *The modern operation for cataract* Boston 1871, *Anaesthesia and non-anaesthesia in the extraction of cataract* Cambridge (USA) 1882; *Graefe's Clinical Lectures on Amblyopia and Amaurosis*. (Engl.Trans.by Dr.Derby, 1866.); *Eine Analyse von 61 Staaroperationen*. (Boston Med. and S.J.1871.); *The Importance of the Ophthalmoscope as an Aid to General Practice*.(Boston Med. and S.J.,1871.); *Die Behandlung der Kurzsichtigkeit mit Atropin*. (New York,1875.) American Encyclopedia of Ophthalmology, Vol.5,p.3830-3831. The Ophthalmoscope, 1914, p.691.

Derby, Richard Henry (1844-1907) American ophthalmologist of New York City. He received at Harvard University the degree of A. B. in 1864 and that of M.D. in 1867. After a brief period as house surgeon in the Massachusetts General Hospital, he proceeded to Germany, where he studied ophthalmology for some years under von →Graefe. For a considerable portion of this time, he acted as von Graefe's assistant. Returning to America in 1870, he began to practice ophthalmology in New York City, and remained in this location until his death. He was a member of the New York Academy of Medicine and of the New York Ophthalmological Society, and a member of the American Ophthalmological Society from 1871. He was consulting ophthalmologist to the Orthopedic Hospital and the Trinity Hospital, and was one of the consulting physicians in the Hospital for Scarlet Fever and Diphtheria. He was also a trustee in the New York Institution for the Blind. He was a very active man in fields other than that of ophthalmology. Thus, he was a member of the council of the Charity Organization Society, of the State Charities Aid Association, of the Committee of Twenty-One in 1881 (appointed for the purpose of reforming the street-cleaning system) and a member of the Committee of Seventy in 1894. He was also a vestryman in Trinity Church. He was an excellent ophthalmologist, being both a shrewd diagnostician and a dexterous operator. American Encyclopedia of Ophthalmology, Vol.5,p.3831-3832.

René Descartes

Descartes, René (1596-1650) French philosopher.″*The father of the newer philosophy*.″ His Latin name was *Cartesius*, and his nickname *Du Perron* (from a small estate which he inherited). Born at La Haye, Touraine, France,he received almost his only education, from 1604 to 1612,at the school of La Flèche, a Jesuit institution which had just been founded by the king. When sixteen years of age, he returned to his father´s house, now at Rennes, and there took lessons in horsemanship and fencing. One year later he went to Paris to enjoy the pleasures of dissipation, but soon becoming disgusted by the useless life he was leading, and also by the political intrigues and horrors of the French capital, he removed to the Netherlands, where he soon took service in the army of the Prince of Orange. Two years later, his time of enlistment having expired, he proceeded to Bavaria, where he again

enlisted, and was present with the Bavarian army at the battle of Prague. Free from service again, he travelled in various lands,and settled at last in Holland, where he lived many years. He died, however, in Sweden, February 11, 1650. The most of Cartesius's philosophy does not concern us here. We may, however, mention that his theories, "The sum of all the motion in nature is unalterable" and "Heat becomes motion, and motion heat," he forestalled, or at least to some extent anticipated, the well known doctrines of the "*Conservation of Energy*" and "*the Mechanical Equivalent of Heat.*" By his declaration that the bodily functions are based upon the molecular motions of the solid and the liquid tissues, he gave their cue to the two great medical systems of the 17th and 18th centuries-the so-called "iatrophysical" and "iatrochemical." He also asserted that sound and light (the latter including color) were also merely modifications of motion. He did not, however, believe that the action of light occurs by means of vibrations of the ether, but, instead, "*by the propagation of direct motion from one minute particle of subtle matter to the next, and so on in right lines, till the last of the series affected the eye.*" He hence believed, almost as a necessary corollary, that the passage of light through space takes place instantaneously, "*as a blind man feels with the end of a stick.*" The existence of the different colors he could not (as a necessary consequence) explain by different velocities and wave-lengths, but only by a rotary motion of the particles that act directly on the eye. The rapidest rotary motion of all, gives red; the next most rapid, yellow; while blue and green can occur only when the rotary motions are slower than the direct. In his Sixth Discourse, he thoroughly expounds the perception of distances, anticipating all that →Berkeley stated, years later, on this important topic in his " *Theory of Vision.*". Descartes works are: *Musicae Compendium* (written 1618, published 1650); *Renatus Des-Cartes Excellent Compendium of Musick* (1653); *Regulae ad Directionem Ingenii* (written 1628, published 1701); *Le Monde de Mr Descartes; ou, le traité de la lumière* (written 1633, published 1664); *Discours de la méthode pour bien conduire sa raison, & chercher la verité dans les sciences. Plus la dioptrique; les meteores; et la geometrie* (1637; *A Discourse of a Method for the Wel-guiding of Reason, and the Discovery of Truth in Sciences*, 1649); *Meditationes de Prima Philosophia* (1641; and its 2nd ed., with *Objectiones Septimae*, 1642; *Six Metaphysical Meditations; Wherein It Is Proved That There Is a God*, 1680); *Principia Philosophiae* (1644); *Les Passions de l'âme* (1649; *The Passions of the Soule*, 1650).Collected correspondence : *Lettres de Mr Descartes: où sont traitées plusieurs belles questions touchant la morale, physique, medecine, & les mathematiques*, ed. by Claude Clerselier, 3 vol. (1666-67); and *Correspondance*, ed. by Charles Adam and Gaston Milhaud, 8 vol. (1936-63, reprinted 1970). The best edition of his works is: Charles Adam and Paul Tannery *"Oeuvres de Descartes"*, in 12 vols.(1897-1913).See also modern translations: *Le Monde; ou, traité de la lumière*, trans. into English by Michael Sean Mahoney (1979); *Treatise of Man*, trans. by Thomas Steele Hall (1972); *Discourse on Method, Optics, Geometry, and Meteorology*, trans. by Paul J. Olscamp (1965); *The Philosophical Works of Descartes*, trans. by Elizabeth S. Haldane and G.R.T. Ross, 2 vol. (1911-12, reprinted 1978); *The Philosophical Writings of Descartes*, trans. by John Cottingham, Robert Stoothoff, and Dugald Murdoch, 2 vol. (1984-85); *Descartes: Philosophical Letters*, trans. and ed. by Anthony Kenny (1970, reprinted 1981); *Descartes' Conversation with Burman*, trans. by John Cottingham (1976); *Principles of Philosophy*, trans. by Valentine Rodger Miller and Reese P. Miller (1983); *The Passions of the Soul*, trans. by Stephen Voss (1989).American Encyclopedia of Ophthalmology, Vol.5,p.3844-3845. Albert.JPW

Descemet, Jean (1732-1810) French, Parisian ophthalmologist, for whom "Descemet's membrane" is named. Descemet became well-known as a botanist and general physician, as well as an ophthalmologist. He is chiefly remembered because of his discovery of the basal membrane of the cornea. Even in this matter, however, his priority was long contested by Demours, whom he would seem, at length, to have defeated. Descemet's chief writing is the item mentioned below, in which he describes the corneal basal membrane. However, Garrison-Morton points out that "Descemet's membrane" was actually first described by Duddell (No. 641). Two years before his death, Descemet was appointed to a teaching position in the newly-erected Royal Lyceum at Paris. *Quaestio medica chirurgica An sola lens crystallina caratactae sedes*? [praeses C. F. Therouldel [Paris 1758]. American Encyclopedia of Ophthalmology, Vol.5,p.3847; Albert

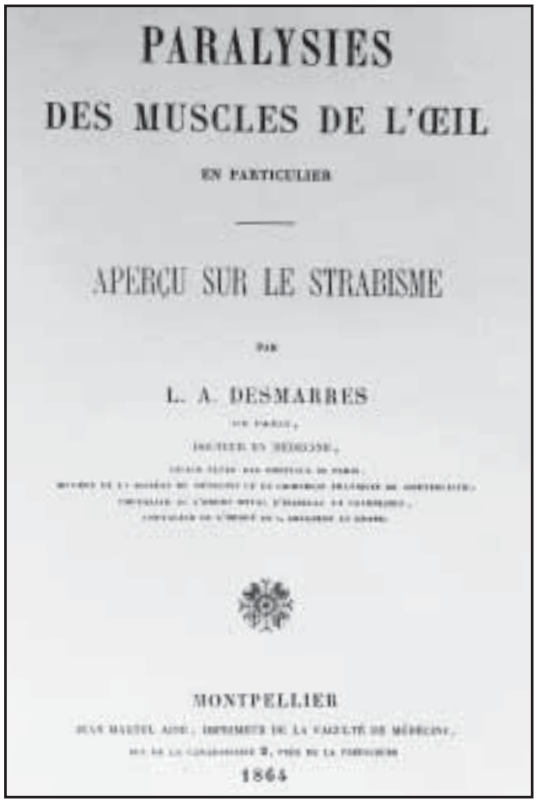
Deschales, Claudius Franciscus (1621-1678) A French Jesuit Father; professor of physics first at Marseilles, later at Lyons. He wrote a colossal treatise in three thick folio volumes entitled, "*B.P. Claudii Francisci Milliet Deschales Cambriensis e Societate Jesu Cursus s. Mundus Mathematicus*, Lugduni, 1674. " One division of this treatise, called "*De Oculorum Suffusionibus, muscis, et Aliis Hujuscemodi*" contains a passage of very great interest to ophthalmologists, forming, as it does, the first correct pronouncement of the true seat and nature of muscae volitantes. The passage in question is as follows: " *Once I attended a consultation of rather skilful physicians concerning one of our own number, who saw before him almost continually a floating mark, like a suspended fly, which sat upon every object looked at. The physicians explained that it was the trace of a cataract in the pupil. One of them, more sharp-sighted than the others, would actually see the mark in the middle of the pupil. I explain that a very small black body in the pupil, which is not close thereby, would have caught a ray from every object; and it cannot be seen, because of lying too close to the crystalline body, for the rays which proceed from it to be able to unite at the retina." "In an experiment with the artificial eye, the small spot upon the pupil does not appear upon the retina when this stands at the correct distance; all that happens is that the coloring of the image is less intense. "The same thing is true, furthermore, concerning opacities of the cornea. Thirdly, I declare that that dark spot may be a bulla in the vitreous humor, pretty close to the retina, because, in order to appear to be fixed upon a visual object, it must cut off from 'the given object either all, or the most, of the rays. Let A and B be objects, which send rays into the pupil CD, so that the rays belonging to A unite at E , and those sent out from B in F. Let us conceive of a very small dark object either in the pupil CD or in the lens GH or even in that part of the vitreous humor which lies nearest to the lens; then one of the rays from A will be intercepted, and also one from B; therefore no ground exists wherefore the spot should appear rather at A than at B. The same holds true of the cornea. When, however, a dark point exists in the vitreous humor just in front of E, then it can intercept all the rays from the point A and thus it can appear as if in an object at A there were some defect; there can, in fact, appear to be a dark spot upon it. "For still more probable I hold this, that often in the retina such a defect is found, since the retina often hardens in places and receives no impression from the object. Then there must appear in the object a black spot. This spot, however, will not appear to be fixed, but movable. For we do not turn the same part of the retina immovably upon the same part of the object, but we contemplate first this object, then that. "Such a condition occurs in those who have gazed at the sun, because the retina has been injured*." Thomas Willis (q. v.) preceded Deschales in the view that defect of the visual field might be due to abnormalities, of the retina, but he made the great mistake of supposing that, to this cause were to be assigned the muscae volitantes instead of those defects which bear a fixed relation to macular (central) vision. American Encyclopedia of Ophthalmology, Vol.5,p.3850-3851.

Louis Florent Deshais-Gendron

Deshais-Gendron, Louis Florent (fl. 1770) French ophthalmologist. He studied at Montpellier and practiced medicine in Paris, where round 1762, he was professor and demonstrator of ophthalmology at the Ecole de Chirurgie. His textbook on ophthalmology was the first to appear since Maitre-Jan's, half a century before: *Traité des maladies des yeux, & des moyens & opérations propres à leur guérison* (2 vols.) Paris 1770. Albert

Desmarres, Alphonse (1840–1913) French ophthalmologist, son of Louis Auguste →Desmarres. Alphonse Desmarres wrote: "*Leçons cliniques sur la chirurgie oculaire*" Paris 1874.The Ophthalmoscope, London 1913,p.570.

Desmarres, Louis-Auguste (1810-1882) Famous French ophthalmologist, who was born in Evreux, France. At first he was the steward of an estate, later he gave violin and water-color lessons to defray his college expenses. Studying in Paris he received his medical degree in 1839. He became, by chance, an intimate acquaintance of the great →Sichel, and was made by this master ophthalmologist his private secretary and the chief of his crowded clinic. In 1841 he established a private ophthalmic hospital of his own, which became a celebrated institution among students of ophthalmology. Among the pupils of Desmarres at this institution was the keenly observant Albrecht von →Graefe, afterwards to become immortal as one of the founders of modern ophthalmology. Always a brusque,


PARALYSIES

DES MUSCLES DE L'ŒIL

EN PARTICULIER

APERÇU SUR LE STRABISME

L. A. DESMARRES

MONTPELLIER

1864

Louis Auguste Desmarres

rough, outspoken man, Desmarres attracted his listeners by the sheer force of his scientific merit. He had but little eloquence, and he made few friends. Desmarres was widely-known for his routine employment of scarification and other forms of blood-letting in connection with various ophthalmic affections. For the purpose of scarification he invented an instrument which is still employed(1914) and is still known as the "scarificator" of Desmarres. He also invented a pterygium operation and an epicanthus operation. He invented a cystitome, a lid-clamp, and a lid retractor. He was really the discoverer of scleritis, though the disease had indeed been (barely) mentioned by von →Ammon (1829) →Velpeau (1840) →Chelius (1843) →Fischer (1846) and by various other writers in other years. The most important writing of Desmarres was his "*Traité Theorique et Pratique des Maladies des Yeux.*" avec 78 figures intercalées dans le texte, Paris, 1847[GM 5863]. German translation, elaboration and enlargement by Seitz and Blattman, Erlangen, 1852. (2d French ed., 3 vols., 1854-58.) This was a very remarkable textbook, the best, in fact that had ever appeared in any language at the time of its publication. Also his *Opérations qui se pratiquent sur les yeux*. Paris 1850 and *Paralysies des muscles de l'oeil en particulier*. Montpellier 1864. Desmarres's other publications are as follows: 1. *Epicanthus Accidentel Temporaire survenu pendant le Cours d'une Conj. Purulente et Ayant Disparu après cette affection.* (Annales d'Oculistique, VI, p. 236, F.evr., 1842.) 2. *Sur une Nouvelle Méthode d'employer le Nitrate d'Argent dans quelques Ophthalmies par M. Desmarres, Chef de Clinique de M. Sichel*. (Op. cit., VII, pp. 45, 105, 259.) 3. *Mémoire sur les Dacryolithes et les Rhinolithes*. (Op. cit., VII, p. 149; VIII, pp. 85, 201; IX, p. 21.) 4. *Sur la Guérison des Taches Anciennes de la Cornée par I'Ablation des Lamelles Opaques*. (Op. cit., IX, p. 96.)5. *Kerèctomie ou Abrasion de la Cornée dans les Opacités Anciennes de cette Membrane.* (Op. cit. X, p. 5.) 6. *Note sur la Kératoplastie*. (Op. cit., X, p. 183-184.) 7. *De la Cataracte Pigmenteuse ou Uvéenne et de son Diagnostic Différentiel.* (Op. cit., XIII, p. 132.) 8. *De l'Emphysème des Paupières.* (Op. cit., XIV, p. 97.)9. *Synchisis Etincelant*. (Op. cit., XIV, p. 220.) 10. *Nouvelles Observations de Synchisis Etincelant*.(Op. cit.,XVIII, p. 23.) 11. *Cholesteritis de l'Oeil*. (Op. cit., XXIV, p. 195.) 12. *Examen des Yeux ou Ophthalmoscopie.* (Op. cit., XVI, pp.13, 122, 291.) 13. *Nouvel Instrument pour I'Extirpation des Tumeurs des Paupières.* (Op. cit., XVI, p. 3.) 14. *Recherches Pratiques sur la Parancenthese de l'Oeil*. (Op.cit., XVIII, p. 255. 15. *Formule pour la Préparation des Crayons de Nitrate d'Argent et de Nitrate de Potasse.* (Op. cit., XX, p. 157.) 16. *Observations Prat.,* etc. (Op. cit., XXIII, p. 7) 17. *Guérison du Ptérygion par un Nouveau Procédé, dit par Dérivation.* (Op. cit., XXV, p. 207.) 18. *Extraction des Cataractes Fausses Membraneuses Secondaires au Moyen de la Serretéle*. (Op. cit., XXVI, p. 166.) 19. *Note sur la Phlebotomie Oculaire.* (Op. cit., XXVIII, p. 153.) 20. *Du Larmoiement.* (Op. cit., XXXI, p. 86.) 21. *De l'exophthalmos Produit par I'Hypertrophie du tissu Cellulo-Adipeux de I'Orbite.* (Op. cit., XXXIV, pp. 273, 283.) 22. *Inflammation des Os et du Perioste de 1'Orbite*. (Op. cit.,XXXIV, p. 275.) 23. *Ankyloblepharon Artificiel dans un Cas de Paralysie Rebelle de la 7e Paire.* (Op. cit., XXXIV, p. 276.) 24. *Oblitération du Sac Lacrymal au Moyen du Chlorure de Zinc.*(Op. cit., XXXVIII, p. 44.) 25. *Indications et Contre-Indications de I'Oblitération du Sac Lacr.*(Op. cit., XXXVIII, p. 44.) 26. *Tumeur Fibroplastique de la Chambre Antérieure.* (Op. cit., XXXVIII, P. 100.) 27. *Note sur une Espèce peu Connue de Tumeur de la Chambre Antérieure.* (Op. cit., XXXVITI, p. 191.) 28.*Operations qui se pratiquent sur les Yeux*. Paris 1850[GM 5864]. 29. *Compte Rendu de la Traduction du Traité Pratique sur les Maladies de I'Oeil de W. Mackenzie, Faite sur la 4ème Edition, par →Warlomont et →Testelin*. (Op. cit., XXXVIII, p. 103.) American Encyclopedia of Ophthalmology, Vol.5,p.3852-3854. Albert

Desmonceaux, Abbé (1734- ?) A French abbot, physician and ophthalmologist of the 18th century, to whom has been improperly assigned the honor of first proposing the removal of the transparent lens in high myopia. Born in Paris he became very early a priest, but, in consequence of a most ardent desire to be of the utmost possible service to the sick, he studied medicine, surgery and ophthalmology in his leisure hours. His

medical, surgical, and ophthalmologic services he gave to all without money and without price, and, on these terms, he became extremely popular. Among his writings are "*Lettres et Observations Anatomique, Physiologiques et Physiques, sur la Vie des Enfants Naissants*" (Paris 1775) and "*Traité des Maladies des Yeux et des Oreilles Considérés sous le Rapport des Quatre Ages de la Vie de l'Homme*" (2 vols., Paris 1786). American Encyclopedia of Ophthalmology, Vol.5,p.3854-3856. Albert

Desmoulins, Jean D. (*in Latin* **Molineus.)** French botanist-physician of Lyons, France, who flourished in the 16th century. In his honor was named by Commerson a plant (Molinea) whose native habitat is the Isle of France. Ophthalmologically, Desmoulins is of importance only because of a mistake-a mistake committed by Benedict, who, in 1825, confusing Desmoulins (of the 16th century) with Desmonceaux (of the 18th century), assigns to the 16th century man the honor of first proposing the removal of the lens in high myopia. Much confusion resulted from the mistake, Otto complained bitterly that he was unable to find in the writings of Desmoulins the ophthalmologic passage which Benedict cites. And, as late as 1900,→Pflüger remarks (page 1 of "*The Operative Removal of the Transparent Lens*") "Only the communication of Desmoulins concerning this operation remains to be found." This mistake was discovered by the observant Julius →Hirschberg, who, in his "*History of Ophthalmology*" remarks, "This Desmoulins has no existence".American Encyclopedia of Ophthalmology, Vol.5,p. 3856-3857.

Deuja, Amar (1955-) Nepalese Ophthalmologist, Consultant Ophthalmologist and Chief of Glaucoma Service, Lumbini Rana Ambika Eye Hospital, Bhairahawa. He graduated from Calcutta Medical College in 1981 with MBBS and then received DOMS and MS in 1988 from Kasturba Medical College , Nanipal, Mangalore University, India. After having completed his Ophthalmology training in 1988, he worked at various hospitals and universities, i.e. trainer to the manpower, Malawi, Africa (1999), Consultant Ophthalmologist, Kedia Eye Hospital, Birganj, Nepal (1995-1997), Kushimoto-Arita Hospital, Kushimoto, Japan (1994) and New York Eye and Ear Infirmary (1991-1993). He is in the present position as above since 1998. His main interest is glaucoma and he presented paper at the XVI Congress of the Asia-Pacific Academy of Ophthalmology in 1997. (Nepal Eye Hospital, P.O.Box 1297, Kathmandu, Nepal) (SM)

Richard Heinrich Deutschmann

Deutschmann, Richard Heinrich (1852-1935) German ophthalmologist, born in Liegnitz, Prussia. Deutschmann received his M.D. in 1873 at the University of Göttingen, and taught ophthalmology and physiology there until 1887. Settling in Hamburg, he practiced ophthalmology and conducted research on the pathology and surgical treatment of the eye; he developed a new procedure for the treatment of detached retina. A serum was called after him "*Deutschmannsche Serum* (Münchner med.Wochenschrift 1907,54,921). Deutschmann edited from 1893 (with E. Fuchs, O. Haab & A.Vossius) *Beiträge zur Augenheilkunde* and wrote *Über die ophthalmia migratoria (sympathische Augenentzündung)*. Hamburg and Leipzig 1889. (Deutschmann received the Graefe Prize in 1889 for this essay). Albert.BJO 1936,20:125.JPW.

Deval, Charles (1806-1862) born in Constantinople and spent most of his life in Paris. He received his M.D. at the University of Paris in 1834, studied ophthalmology under→Sichel for several years, and then established his own practice. He wrote: *Chirurgie oculaire: ou traité des opérations chirurgicales* Paris 1844, *Traité de l'amaurose ou de la goutte-sereine* Paris 1851, *Abhandlung über die Amaurose oder den schwarzen Staar* ... Quedlinburg and Leipzig 1853, *De l'affaiblissement de la vue et de la cécité dans l'amaurose ou goutte-sereine et dans la cataracte et des moyens les plus efficaces d'y remédier*. Paris 1855, *Traité théorique et pratique des maladies des yeux*. Paris 1862. American Encyclopedia of Ophthalmology, Vol.5,p.3861-3862.

Devoe, Arthur Gerard (1909-) American Ophthalmologist, Professor Emeritus of the College of Physicians and Surgeons of the Columbia University, New York. Born in Seattle Washington, he graduated from Cornell University with M.D. degree granted in 1935, and studied Ophthalmology at the Institute of Ophthalmology, The Presbyterian Hospital in New York (1937-40): he received his Doctor of Medical Sciences from the Columbia University in 1942. After having served at various Hospitals, he was appointed

Professor and Chairman of the Department of Ophthalmology, New York University, Postgraduate Medical School (1950-1959). He then led a large group of Ophthalmologists and Vision Scientists at the Department of Ophthalmology, College of Physicians and Surgeons of Columbia University, as the Professor and Chairman: during his tenure (1959-1974), he organized the Department to the World's foremost Ophthalmology Institute. He served as Associate Editor (1952-1955) and Editor (1960-1970) of the *Arch. Ophthalmol*. and as the Chairman (1964-1966) and Consultant (1966-1975) of the American Board of Ophthalmology. He also served on many Committees and Councils of the Federal and New York Government and of many non-governmental Organizations. His service to the professional societies include President of the American Ophthalmological Society (1973), of the New York Ophthalmological Society (1964) Board of Directors of the Pan-American Ophthalmological Society and many others, and he is Honorary Member of the Mexican, Chilean, Brazilian, Peru, Canadian Ophthalmological Societies and of Instituto Barraquer Barcelona. His research interest covered a wide area of Ophthalmology, but the cornea has been the main subject and he published many original papers in this field. He edited *Symposium on Surgery of the Ocular Adnexa* (1966). He is a founding Member of the Castroviejo Cornea Society and gave the first Castroviejo Lecture in 1975 (*Controversial problems in corneal surgery*. Palestra Ophthhalmologica Panamericana, 1: 15, 1977). Also he gave many honor lectures, e.g. the Gifford Lecture (*Complications of keratoplasty*. Am. J. Ophthalmol. 79: 907, 1975), the 6th Frederick H. Verhoeff Lecture (*Current status of the cataract operation*. Trans. Am. Ophthalmol. Soc. 73: 204, 1975), Georg K. Smelser Lecture (*Critical evaluation of current concepts in cataract surgery*. Am. J. Ophthalmol. 81: 715, 1976), Charles May Lecture, 1961 (*Keratoplasty: past, present and future*), McPherson Memorial Lecture, 1967 (*Five years experience with artificial cornea*), The Ralph I. Loyd Lecture, 1967 (*Management of fungus infections of the cornea*), XII Albert C. Snell Memorial Lecture (*Clinical management of the edematous cornea*), George E. d Schweinitz Lecture, 1968 (*The Management of fungus keratitis*), Edwin B. Dunphy Lecture, 1969 (*Disorders of the peripheral cornea*), The Mark J. Schoenberg Lecture, 1970 (*Epithelial invasion of the anterior chamber*), McLean Lecture,1972 (*Epibulbar dyskeratosis*), John C. Cunningham Lecture, 1973 (*Trends in Ophthalmology*). To honor his contributions, the Columbia University created the "*A.G.DeVoe Lectureship in Ophthalmology*", at the College of Physicians and Surgeons to be given to outstanding Ophthalmologists of the World. (SM)

Dewar, Henry (1780-1860?) Scottish surgeon of Edinburgh,who served as an army surgeon in Egypt (1801). He received his M.D. with the thesis *Dissertatio De ophthalmia Aegypti* Edinburgh 1804. Albert

Dhanda, Rajendra Pal (1917-) Indian Ophthalmologist, renowned teacher of Ophthalmology. He was the first to do Clinical Electro-retinography in India and did important studies of ERG in Vitamin-A deficiency, Glaucoma and Systemic Hypertension. All of these works were done on an ECG machine with his own fabricated contact lens electrode when no ERG apparatus was available in India (*Electro-retinography in children*. Ind. J. Pediatr.23: 349, 1956; *Electroretinography Diagnostic and prognostic evaluation*. J. AIOS 9: 1-19, (1960). Sir Stewart Duke-Elder quotes his works in his *System of Ophthalmology*. Dr. Dhanda is one of the early members of the All India Ophthalmological Society to be awarded the prestigious Adenwala Oration Gold Medal by the society for his works of ERG. He is the first to start regular Corneal Surgery Service in India in 1960. He conducted Ten Comprehensive Training Courses in corneal surgery for senior Ophthalmologists between 1964-1985 and trained over 250 Ophthalmologists. He has been an invited Guest Speaker at all the three *World Cornea Congresses* in Washington D.C. and the International Corneal Conference at Filatov Institute, Odessa USSR in 1978. He has the unique distinction of being the Chairman of the Ophthalmology Expert Group of the Indian Council of Medical Research (ICMR) twice. He has also served on the Specialty Board and Credential Committee of National Academy of Medical Sciences, India. He received Research Grants in Aid for clinical research by the ICMR during the years 1951-1963 and ICMR sponsored publication of his monograph "Corneal Grafts" that contained for the first time histological findings of tropical corneal diseases. He was invited by Gujarat Government to develop the Postgraduate Institute of Ophthalmology at Ahmedabad in 1967. He is the one to initiate full Professorship in

Ophthalmic Super-specialties, which Gujarat Government sanctioned. The Postgraduate Institute of Ahmedabad is the first to have full Professors in Cornea-Eye Banking, Retinal Diseases and Strabismology. Dr. Dhanda has been an active member of the AIOS since 1950s. He was President of AIOS in 1983. He published more than 120 scientific article in National and International Literature, e.g. *Keratoplaty in a trachomatous country*. Am. J. Ophthalmol. 55: 1217, 1963, *Follow-up studies in keratoplasty*. J. AIOS 13: 95, 1965 and *Avitaminosis and the cornea in India*. Orient. Arch. Ophthalmol. 3: 116, 1965. His book "*Corneal Surgery*, Little Brown and Co. Boston, 1972" is the first contribution on this subject from a tropical Country. The book was updated and published in India in 1992. His monograph on "*Cataract*" and "*Textbook of Clinical Ophthalmology*" have been important reference books. In addition, he has contributed chapters on Cornea and general Ophthalmology in books edited by others, including the one by Dr. Arthur S. M. Lim published in Singapore. Dr. Dhanda provided rural Ophthalmic Services in the States of Madhya Bharat, Madhya Pradesh and Gujarat from 1951 to 1984; he carried out rural eye camps on a scientific basis as early as in 1950s. He served as the Chief Investigator and he surveyed under a project by the ICMR to find "*Incidence and Prevalence of Blindness in India*". The Government of Gujarat also sponsored this project in mid 1970s. He was the Founder President of the Eye Bank Association of India in 1989-1992. The idea of such an organization to consolidate the efforts of different workers was executed and a constitution framed under his guidance.(SM)

Dhanens, Benoni-Dominique (1843-1876) Belgian ophthalmologist who was born in Watervliet. He obtained the M.D. degree in Ghent in 1870 and specialized in ophthalmology under →Bowman and →Critchett at Moorfields Hospital in London, under →Donders in Utrecht, under →Mooren in Düsseldorf and under →Saemisch in Bonn. In his papers he showed that *ophthalmic diseased are better cured in inpatients departments* (1872) and discussed *intermittent photopsia* (1872), *school myopia* (1872), *entropium* (1873), *treatment of pannus* (1876). (Verriest)

Dhungel, Indu Prasad (1956-) Nepalese Ophthalmologist, Senior Ophthalmologist of Fateh-Bal Eye Hospital, Nepalgunji, Nepal. He graduated from Tribuhuwan University with B.Sc., Kathmandu in 1974, from Government Medical College of Nagpur, India with MBBS in 1980 and received MD degree in 1992 from All India Institute of Medical Sciences, New Delhi, India. He worked at the Himalaya Eye Hospital (1994) and later at Scheer Memorial Hospital Banepa (1994-1997) and he is in the present position since 1997. He conducts surgical and comprehensive eye camps in remote villages, runs a busy eye clinic and teaches young Ophthalmologists and assistants. He has presented many papers on pediatric ophthalmology, retinal diseases and anterior segment problems at international seminars. (NWRECC, Fateh Bal Eye Hospital P. O. Box, No. 32, Fultekra, Nepalgunj, Nepal, phone: +977-81-20598; fax: +977-81-21618;
e-mail: baral@fbeh.wlink.com.np) (SM)

Dianoux, E (?-?) French ophthalmologist. He was a professor of ophthalmology at the medical school at Nantes. He wrote: Du scotome scintillant, ou, amaurose partielle temporaire. Paris 1875. Albert

Dickinson, William (?-1894) A pioneer of American ophthalmology. The date and the place of his birth are unknown. He received his medical degree at Harvard University in 1851. He then spent nearly five years in Europe, where he studied with →Sichel, →Desmarres, →Arlt, →Jaeger, and von →Graefe. In 1857 he settled in St. Louis, where he practised and taught ophthalmology. At the outbreak of the war he was commissioned Brigadier Surgeon of the U. S. A., and served in this capacity for some time. After the war, he re-established himself in St. Louis, and became very prominent. He was active in society work, and became connected with several hospitals as ophthalmologist. His most important services to ophthalmology were rendered in the course of his long-continued but always unsuccessful, efforts to secure the establishment by the legislature of a State Eye and Ear Hospital. For eleven years (1861-72) he labored unceasingly toward this end. His Eye and Ear Hospital bills were always defeated, though, as a rule, by a very narrow majority. In the course of his efforts to secure the passage of these bills, he accumulated an enormous amount of information, statistical and other, and, at his death, he left to a

friend his collection of books, documents, and papers, with the earnest request that the work should be carried on until it was successful. On Jan. 24, 1894, he left St. Louis for California, in search of better health. So utterly exhausted, however, was Dickinson before he started on this long and tiresome journey, that he died only a few days after he had reached the land from which he had hoped so much. American Encyclopedia of Ophthalmology, Vol.5,p.3960.

Johann Friedrich Dieffenbach

Dieffenbach, Johann Friedrich (1792-1847) A famous German general surgeon of Berlin who should be regarded as the founder of plastic surgery, and who invented the strabismus operation. Born in Königsberg, Prussia, he lost his father at a very early age. In 1812 he studied theology at Rostock and Greifswald. For the next two years he was engaged in voluntary military service. From 1816-20 he studied medicine at Königsberg. Here he showed decided aptitude for surgery and anatomy, and,on his own account, engaged in a series of attempts at the transplantation of hairs and feathers. He had just obtained a prosectorship, when, as a consequence of a love affair with a married woman, Johanna Moterby, he was obliged to leave the city. Going to Bonn he received, on the recommendation of the powerful von →Walther, a commission to escort to Paris in his capacity as physician "a sick, blind, Russian lady, the widow of Rostoptschin, the burner (in 1812) of Moscow." In Paris he formed the acquaintance of Boyer, Dupuytren, Larray, and Magendie. Then for a time he studied with →Delpech and Lallemand at Montpellier. Returning to Germany, he received his medical degree at Würzburg, presenting the dissertation, "*Nonnulla de Transplantatione et de Regeneratione*." Herbipoli 1822.[GM 5740] Most of the movements of his life would seem to have been controlled almost entirely by the aforesaid married lady, Johanna Moterby, who, at length, had secured a divorce from her husband and married Dieffenbach. In 1823 Dieffenbach settled in Berlin. Here he would seem to have had some difficulty at first in establishing himself in practice. Success, however, at length was his, and his popularity may readily be imagined from a song which the children of Berlin were wont to sing about the streets "*Wer kennt nicht Doctor Dieffenbach, den Doctor der Doctoren? Er schneidet Arm und Beine ab, Macht neue Nas und Ohren*." He was always a brusque and energetic man, quick and quick tempered, but quicker still to seek pardon and to grant it; talkative, genial, given to much praising, warm of heart and generous beyond all bounds. Add to these social qualities the highest possible degree of surgical inventiveness, a hand so quick and accurate as to be a marvel and almost a mystery, and, still further, a brilliant and fiery eloquence and you have Dieffenbach, the idol of all his patients, of all his students, of all the faculty, and, in short, of everybody. He died Nov. 11, 1847, when about to enter and perform an operation. Dieffenbach has well been called "the creator of plastic surgery." This remarkable man should also be remembered as the inventor of the strabismus operation. Before this time, cross-eyes were treated or mistreated, by means of mere masks, bandages, and similar forms of ineffectiveness. Louis Stromeyer, professor of surgery at Hanover, in 1838 proposed the employment of muscular section as a means of treating cross-eye, and he even went so far as to perform the operation on a cadaver. But Dieffenbach, in 1839, reported the case of a boy of seven on whom he had actually performed this operation for an inward squint, in the presence of →Jüngken, and with an almost perfect result. Dieffenbach was also exceedingly active, later, in perfecting the technique of his new operation. In 1844 the Paris Academy of Sciences divided the Monthyon prize* between →Stromeyer and Dieffenbach: "To M. Stromeyer for having first proposed and performed the strabismus operation on the cadaver, and to M. Dieffenbach for having first performed the operation with success on the living subject." Dieffenbach's most important writings are as follows: 1. *Die Abgeänderte Umschlungene Naht als Schnelles Heilmittel bei Gesichts-Wunden.* (J. Hecker's Lit. Annalen f. d. Ges. Heilkunde, vol. 8, p.129, Berlin, 1827.) 2. *Neue Heilmethode des Ectropium*. (J. N.Rust's Magazin f. d.Ges.Heilkunde, Berlin, 1830, p.938.) 3. *Fall von Blepharoplastik*. (v.Ammon's Zeitschrift,vol. IV, p.438.) 4. *Beitrag zur Verpflanzung der Hornhaut.* (v.Ammon's Zeitschrift, vol. 1, 2, p.172-176, 1831.) 5. *Beiträge zur Subkutanen Orthopädie.* (Casper's Wochenschrift, 1839, No. 38.) 6. *Chirurgische Erfahrungen, besonders über die Wiederherstellung zerstörter Theile des Menschlichen Körpers nach Neuen Methoden*.(3 vols.in 4 + Atlas, Berlin, 1829-34.)[GM 5743] 7. *Über die Durchschneidung der Sehnen und Muskeln*, Berlin 1841.[GM 4323] 8. *Über das Schielen und die Heilung desselben durch eine Operation*.Berlin 1842.[GM

5856] 9.*Ueber Schiel-operation*. (Leipzig, 1845.) 10. *Der Aether gegen den Schmerz*. (Berlin, 1847).*see also Florent →Cunier. American Encyclopedia of Ophthalmology, Vol.5,p. 3962-3964.

Dieter, Walter (1895-?) German ophthalmologist.Received his MD 1920 at Tübingen.Lecturer 1925 Leipzig. From 1934 professor and chair in Breslau. Devoted considerable attention to physiol.optics, vegetative physiology and pathology of the eyes. Kürschners Gelehrten- Kalender 1966,p 386; F. Hollwich Ophthalmologenverzeichniss 1964,p.76.

Friedrich Dimmer

Dimmer, Friedrich (1855-1926) Austrian ophthalmologist, born in Prague. He studied in Vienna receiving there his M.D. in 1878. He then became the student and assistant of →Arlt, →Jaeger, and →Fuchs. He taught at Innsbruck from 1895 to 1900 and in Graz from 1900 to 1910 before returning to Vienna. Dimmer's research focused on the physiology of the retina, techniques for photographing the fundus, and the development of corrective lenses for aphakia. He wrote *Der Augenspiegel und die ophthalmoskopische Diagnostik*. Leipzig and Wien 1887 (3rd edition 1921), *Beiträge zur Anatomie und Physiologie der Macula lutea des Menschen*. Leipzig and Vienna 1894, *Die ophthalmoskopischen Lichtreflexe der Netzhaut* ... Leipzig and Vienna 1891, *Die photographie des Augenhintergrundes Wiesbaden* 1907. Albert

Diodorus. A celebrated blind philosopher of ancient Rome, preceptor to Cicero. He was a man of immense learning and industry. There was another blind philosopher of about the same period, known as Diodorus the Stoic. American Encyclopedia of Ophthalmology, Vol.5,p.3974.

Diogenes of Apollonia (Circa, 460 B. C.) Greek philosopher of the first (the Ionic) school of philosophy.[*Not* to be confounded either with Diogenes, the famous Cynic (about 412 B. C.), or with Diogenes Laertius,. the biographer of the Greek philosophers (about 200 AD)]. He taught, like his predecessor, Anaximines, that air is the source of all things, the one primary element. In accordance with this fundamental doctrine, he ascribed immense importance to the various winds in the etiology both of disease and of health. Ophthalmologically Diogenes possesses considerable interest, because he was one of the *first* in all history to attempt an explanation of the visual act. His explication is just a bit involved-or at least we may say that it seems to be so, for we know of the matter only through certain fragments transmitted by Theophrastus-but, as nearly as we can tell at the present time, his theory of vision was this: Certain passages lead down into the eye a kind of air which is really but a small portion of the soul itself. This bit of soul, being in the eye, meets in the pupil an image of the object looked at, and so perceives it. It will have been observed that Diogenes makes no attempt to explain how the image arrives in the pupil, neither does he understand at all that the brain has ought to do with the matter. In fact, the brain was supposed even by the great Hippocrates (who lived somewhat later) to be merely an enormous gland. Diogenes taught also that the great variations in visual acuity presented by the eyes of different persons, were due (1) to differences in the fineness of the soul itself, and (2) to differences in the fineness of the passages by which the soul was enabled to penetrate the eye. He also thought that the color of eyes had much to do with visual acuity, at least under special circumstances. Thus, dark eyes (according to him) see better by day; light-colored eyes, on the contrary, by night. American Encyclopedia of Ophthalmology, Vol.5,p.3974-3975.

Diomedes. Son of the impetuous Tydeus, and, at the siege of Troy, leader of the tribes which belonged to the government of the Amythonidoe. According to Pausanias ("Description of Greece," II,24) he erected in Argos a temple to the sharp-sighted Minerva, out of gratitude for the aid which that goddess had rendered him, when, before Troy, he had been attacked by some affection of the eyes. American Encyclopedia of Ophthalmology, Vol.5,p.3975.

Dioscorides, Pedanins (c.40 - c.91 AD) The greatest materia medicist of antiquity. Born in Anazarba (later Caesarea Augusta) in Cilicia of Asia Minor he became a physician,

traveled in Egypt, Italy, Spain, Gaul, Germany, and Greece, and died, it is not known where. Familiar with all the medical writers of his time, he was also an independent investigator. His book, "*On Materia Medica*," is not merely the most complete, it is also the oldest, that has come down to our day. Though devoted to medicines of every conceivable kind, it is especially of interest to modern oculists. Some of the ocular diseases which Dioscorides mentions, together with a few of the remedies which he recommends in each case, are as follows: *For Diseases of the conjunctiva*. Pomegranate flowers, sheep's tongue (the plant so-called), hyoseyamus, ironstone, betel, sesame, mouse-ear, and saffron. *For Diseases of the lids*. Ebony, burnt-sponge, oil of roses, blackthorn (for blepharitis), aloes (for itching).*For trachoma*: Myrrh, burnt mussel-shell with honey, copper ore, iron ore (hematite), mustard juice, and the juice of unripe grapes. *For Diseases of the lachrymal apparatus*: The soot from resin and also that from pine cones (for epiphora), decoction of myrtle, with bean meal (for lachrymal abscess). *For Diseases of the eyeball*. Bean meal for prolapse of the eyeball. *For Diseases of the cornea*. For ulcers, myrrh; also frankincense and the soot of liquid pitch. For phlyctenules, onion juice. For corneal sears, cedar, resin of the Ethiopian oil tree, an innocent boys urine, boiled with honey. *For Diseases of the iris*. Burnt kernels of dates, bean meal, oxide of iron, lapis lazuli. *For Weakness of sight* etc.: Oil of bitter almonds, resin of the Ethiopian oil tree, gall of the water scorpion. *For glaucoma*: saffron-salve. *For cataract*: petroleum, gall of the water-scorpion onion juice. *For Injuries of the eye*. Mother's milk, with frankincense, hematite, aloes, bean meal with wine, and lapis lazuli. American Encyclopedia of Ophthalmology, Vol.6,p.3997-3998.

Dische, Zacharias (1896-1988) American biochemist of Polish origins. He was born in Poland and served in the Austrian-Hungarian army, and received the M.D , degree from the University of Vienna. He entered the biochemistry laboratory of Professor Furth and became chief of biochemistry of the Institute of Physiology of the University of Vienna in 1931. He discovered the pentose shunt reaction of intermediary hexose metabolism. In 1938 he went to France where he worked briefly at the University of Marseille and discovered the "feedback mechanism" of the control of enzymatic processes. He then worked at Mount Sinai Hospital, and then the departments of biochemistry and ophthalmology of Columbia University. There he clarified the chemical mechanism of the clarity of the cornea, lens, and vitreous. He discovered a large number of color reactions to identify various sugars. He received the Proctor Medal award of the Association for Research in Ophthalmology on June 9, 1965.AJO 1988,105:570

DiStefano, Deborah (1950 -) American ophthalmologist, born in Massachusetts. DiStefano received her MD 1976 at the Medical College of Wisconsin and specialized there in ophthalmology. She was certified in 1982. DiStefano completed a corneal fellowship at Massachusetts Eye and Ear Infirmary at Harvard University in Boston 1980-1982. She was awarded "Who's Who In The South and Southeast 1983-1984 and in 1996 through 1999 "*Best Doctor in America*" as seen on "60 Minutes". DiStefano is an Assistant Clinical Instructor at the University of Tennessee, College of Medicine. She was recruited from Harvard to Chattanooga in 1982 to become the Chairperson of the Department of Ophthalmology at the University of Tennessee at Chattanooga unit. She remained in that position for 10 years. She then resigned to focus more on her refractive practice and her family. Her refractive surgery experience began in 1984 with both RK and AK and she performed 7000 to 8000 cases. She is a member of the American Medical Association, International Society of Refractive Surgery, American Society of Cataract and Refractive Surgery, and American Academy of Ophthalmology. JPW

Dix, John Homer (1813-1884) American ophthalmologist, born in Boston. Dix received his M.D. at Jefferson Medical College, Philadelphia, in 1836 and returned to Boston, where he became an eminent ophthalmic surgeon. Dix was the first in America to perform Dieffenbach's operation for strabismus. He was a founding Member of the American Ophthalmological Society. He wrote: *Treatise on strabismus, or squinting, and the new mode of treatment*. Boston 1841, *Treatise upon the nature and treatment of morbid sensibility of the retina, or weakness of sight* Boston 1849. American Encyclopedia of Ophthalmology, Vol.6,p.4053-4054. Albert

Dixon, James.(1813-1896) British ophthalmologist. He became in 1836, a Member, and, in 1843, a Fellow, of the Royal College of Surgeons. He practiced in London for many years, at first in Green St., afterwards in Portman Square. He was, for a time, assistant at St. Thomas's Hospital and Surgeon to the London Ophthalmic Hospital. He was not a prolific writer, although he published *A Guide to the Practical Study of Diseases of the Eye* London 1855 (2d ed., 1859; 3d ed., 1866), and the article, "*Diseases of the Eye*," in Holmes's *System of Surgery* was written by him. He also wrote a few brief articles and letters for medical journals. Dixon was a gentleman of the old school, affable, courteous and extremely obliging. The British Medical Journal speaks of his "high-bred and courteous personal bearing." All agree that a better and moral loyal friend could never have existed. And every human being seemed, potentially at least, to be his friend. In 1870 he met with a sorrow from which he was never able to recover the death of his wife. Very soon after this blow, he left London, and, retiring to his country home at Dorking, spent the remainder of his life (more than a quarter of a century) in the study of history and literature. American Encyclopedia of Ophthalmology, Vol.6,p. 4054-4055.

Dobbie, J. Graham (1926-1990) American professor of ophthalmology and founder of the retina service at Northwestern University. Dobbie´s career as a physician and teacher spanned nearly 30 years, beginning on his return to Chicago in 1961 as the area's first retina surgeon. It was a time when indirect ophthalmoscopy and scleral buckling were virtually unknown in many areas throughout the Midwest, which prompted Graham to recall years later that his early lectures on the direct ophthalmoscope and peripheral retina were often met with respect but minimal enthusiasm . He travelled among several Chicago institutions in those first years, founding and directing retina services at Cook County and Hines Veteran Administration hospitals, and in 1963, the retina department and laboratory at Northwestern University where he served as director until 1985. Dobbie was born on April 28, 1926, in Oak Park, Illinois. After high school, he enlisted in the United States Navy and became a demolition expert. He used to joke that it was this early training in handling explosives that contributed later to his dexterity and good judgment in the operating room. He graduated from Northern Illinois University in 1950 and received his medical degree in 1955 from Marquette University where he was an honors graduate and a member of Alpha Omega Alpha. He served his internship and residency at Cook County Hospital. The following year he received his master of science degree in physiology at Loyola University. This interest in physiology took him to London in 1958, where as a special National Institute of Health fellow he studied physiologic mechanisms in glaucoma. Personal contacts that year with many British and European research ophthalmologists developed into endearing friendships that remained very special to him for the rest of his life. In 1959, Dobbie began a retinal fellowship with Charles→Schepens at the Massachusetts Eye and Ear Infirmary and the Retina Foundation. Although he loved Boston and considered staying, he wanted most of all to start his own practice and establish a retinal center in Chicago. He joined the teaching staff at Northwestern University in 1961 as clinical assistant, the first subspecialist in the department, and in 1984 was appointed professor of ophthalmology. Dobbie was a charter member of the Retina Society and president in 1986 and 1987. He was elected to the American Ophthalmological Society in 1980 and was a member of the Club Jules Gonin, Oxford Ophthalmological Congress, American Academy of Ophthalmology, and the Eye Study Club. He devoted many years to the Chicago Ophthalmological Society and , as its president in 1974, guided the society through a difficult period of emerging concern over ethical standards and proper conduct related to physicians and advertising. Dobbie published over 50 articles on diseases and surgery of the retina and was a frequent visiting professor and participant and moderator at numerous meetings and seminars. He was especially interested in intraocular fluid dynamics and wrote his American Ophthalmological Society thesis on circulatory changes associated with retinal detachment, a project he continued to study until a few weeks before his death. Onchocerciasis was another of Graham's special interests. With Maurice Langham, his friend and colleague for many years, he traveled repeatedly to Africa to examine and treat patients with river blindness. AJO 1991,111:394-395

Dodd, Henry Work (1860-1921) British ophthalmologist, lecturer on ophthalmology and surgery. He was born at Victoria, Vancouver Island, B.C., and educated at Norwich

School, under the Rev. Augustus Jessop, D.D. Dodd studied medicine at St. Bartholomew's Hospital, London. For some years he was Clinical Assistant at The Royal Westminster Ophthalmic Hospital, and was eventually appointed to the staff of that institution. He also held the posts of Ophthalmic Surgeon to, and Clinical Lecturer on Ophthalmic Medicine and Surgery at The Royal Free Hospital, and Ophthalmic Surgeon to The West-End Hospital for Nervous Diseases. During the existence of the Volunteer Medical Staff Corps he took an active interest in its affairs, and upon its disbandment retired with the rank of Major. His contributions to the literature of ophthalmology were mostly published in the Transactions of the Ophthalmogical Society of the United Kingdom. BJO 1921,5:382-383

Doden, Wilhelm (1919-?) German ophthalmologist. University lecturer Freiburg/Br.1957, professor 1962. Professor and Chair at Frankfurt University in 1967. Contributions in following treatises: *Handbuch der Tuberkulose*,vol.IV,1958; *Schielen-Pleoptik-Orthoptik-Operationen,*Issue 38,1961; *Entwickelung und Fortschritt der Augenheilkunde,* 1963; *Axenfeld-Pau´s Lehrbuch der Augenheil-kunde,* 11th ed.1973. *Almanach f.d. Augenheil-kunde*, 1973. Editor of *Amotio Retinae* since 1970. Kürschners Gelehrten- Kalender 1966,p399. F.Hollwich Ophthalmologenverzeichniss 1964,p.78-80(extensive).

Dodo, Tsuguo (1911-) Japanese Ophthalmologist, Professor Emeritus of Hiroshima University. He graduated from Kyoto University in 1935, studied Ophthalmology under Prof.→MORI Shinnosuke and received his Doctor of Medical Sciences in 1943 from the University (thesis: *Experimental Studies of aneurin in the retina*, J. Jpn. Ophthalmol. Soc. 47: 671, 1942; ibid. 47: 519, 1943). He served as the Professor and Chairman of the Department of Ophthalmology of Hiroshima University from 1951 to 1975. He has been a leader in research of retinal detachment. He gave a special lecture *"Scleral resection and shortening in retinal detachment surgery"* at the 13th Congress of the Japanese Society of Clinical Ophthalmology in 1959, and his many publications include *"Diapupillary resection of vitreous opacity*. J. Ophthalmol. Soc. Jpn. 59: 1955" and *"Window making procedure for posthemorrhagic vitreous membrane*, ibid. 68, 1964". The Vitreoretina Society of Japan granted him the Mori Award for his outstanding contributions in 1998. In recognition of his distinguished service, the Government conferred on him the Third Order of the Rising Sun in 1984.(SM)

Doggart, James Hamilton (1900-1989) British ophthalmologist. James Hamilton Doggart was born at Bishop Auckland. After education at King James Grammar School, Bishop Auckland, and Queen Elizabeth Grammar School, Darlington, he served for a short while as a Surgeon Sub-Lieutenant in the Royal Navy in 1918. He entered King's College, Cambridge, as a senior open foundation scholar in 1919, before moving on to St. Thomas's Hospital. After qualifying he was ophthalmic house surgeon at St.Thomas's, then house surgeon and casualty officer at the Royal Northern Hospital. Doggart was extremely unlucky to reach the peak of his ophthalmic training in the late 1920s and early '30s, when the policy of Moorfields Hospital was rarely to accept a UK doctor as a house surgeon. Australia and New Zealand were the chief beneficiaries of this policy. As a result, early in his career, Doggart substituted pathology for surgery as his main interest, serving as pathologist at the Westminster Ophthalmic Hospital and, later, Lang Research Scholar at Moorfields Hospital from 1930 to 1933. Later he was appointed as assistant surgeon, then surgeon and lecturer in ophthalmology at St George's Hospital; ophthalmic surgeon to the Hospital for Sick Children, Great Ormond Street, and lecturer in the Institute of Child Health; ophthalmic surgeon to Lord Mayor Treloar Hospital; assistant surgeon to the Central London Ophthalmic Hospital and eventually assistant surgeon, then surgeon, to Moorfields Eye Hospital as well as lecturer in the Institute of Ophthalmology. Jimmie, as he was widely known, was a bibliophile and classics scholar who enjoyed reading ancient Greek. He loved the ambience of a literate community and never felt at home in the operating theatre. Consequently he was happy to leave the *"carpentry of ophthalmology"*, as he called it, to others, while he interested himself in the medical aspects of his specialty. He found his metier in coping with diseases of the eye in children; in slit lamp microscopy (at that time a new method of investigation); and in the esoteric problems of ophthalmic medicine, on which he published a number of books: *Diseases of children eyes*,(1947, 2nd

1950) *Children eye nursing* (1948) *Ocular signs in slit-lamp microscopy and Ophthalmic medicine* (1949). He also wrote numerous chapters in books of multiple authorship as well as many medical papers on ophthalmology. He wrote in lucid style, bordering on the poetic, and the substance of his message was polished and superbly presented. He was an examiner in ophthalmology for the Royal College of Physicians and examiner for the ophthalmic FRCS, and he also served as Faculty of Ophthalmology representative on Council of the Royal College of Surgeons. Doggart was a liveryman of the Society of Apothecaries, and an honorary member of the Australian, New Zealand, Canadian and Peruvian Societies of Ophthalmology, and of the Oto-neuro-ophthalmological Society of the Argentine. He received following titles: CStJ 1962; MRCS 1922; FRCS 1928; MA Cambridge, 1925; M13,13Ch 1925; MD 1931; LRCP 1922.The Times, 18 October 1989; Brit. med. J. 1990, 300:324-5. LFRCSE

Dogiel, Jan von (1830-?) Celebrated Russian physiologist, much of whose work has been important for ophthalmology. Dogiel was born at Zalesia, in Lithuania. After his general training in the gymnasium at Kowno, he entered the Medico-Chirurgical Academy in St.Petersburg. Later he proceeded to Moscow, where he received the degree of Doctor of Medicine in 1863. After a number of years in political and military service, he studied at Heidelberg under Helmholtz, Kirchhoff, and Bunsen, then, for two full years, in Ludwig's laboratory at Leipzig. Returning to his native land in 1868, he became professor of physiology at St. Petersburg in the same year. His most important contributions to our speciality are: "*Zur Lehre der Irisbewegung*" (with J. Bernstein, Verhandl. d. Naturhist.-Med. Vereins, Heidelberg, 1866) ; "*Ueber den Muskulus Dilatator Pupillae bei Säugethieren, Menschen und Vögeln* (M.Schultze's Archiv f.Mikr.Anat. 1870 and 1886); "*Die Betheiligung der Nerven an den Schwankungen in der Pupillenweite*" (Pflüger's Archiv. vol.56,1894); "*Zur Kenntniss der Eiweissreactionen und von dem Verhalten des Albumins der Lichtbrech. Medien des Auges.*" (Pflüger's Arch., Bd.19, 1879). American Encyclopedia of Ophthalmology, Vol.6,p.4056.

Dohlhoff, Georg Eduard (1799-1852) German surgeon,who devoted considerable attention to ophthalmology. Born at Halle,Germany he studied there medicine graduating in 1819. In 1822 Dohlhoff settled in Magdeburg, and in 1826 became assessor and in 1832 Councilor in the Medical College of the Province of Saxony. His only ophthalmologic writing was " *Ueber die Augenheilkunde des Celsus*" (in *Graefe and Walther's Jour.*, 1823). American Encyclopedia of Ophthalmology, Vol.6,p.4056.

Dohlman, Claes Henrik (*1922) American ophthalmologist of Swedish origin. He was born in Uppsala, Sweden, and received his schooling in Lund. He gained his M.D. degree 1950 and then entered ophthalmology training in Lund under Professor Sven Larsson. The years 1952-54 were spent in?fellowship training in the United States. Thus, for eighteen months he?worked under Dr. Jonas→Friedenwald, Wilmer Institute, Johns Hopkins?Hospital, primarily on proteoglycan histochemistry. Eight months were spent at the Retina Foundation in Boston, supervised by Drs. Endre Balazs and Charles→Schepens. More ophthalmology training followed back?in Sweden. During the following years Dohlman continued his interest in?biochemistry of the cornea and he finished his doctorate in biochemistry?at the Karolinska Institute in Stockholm on the metabolism of the sulfated proteoglycans in the cornea (*Chemical and metabolic studies on?the cornea with particular reference to keratoplasty*. (Dohlman), Berling, Lund 1957). His preceptors were Professors Lennart Roden,?Harry Bostrom, Sven Gardell and Torvard Laurent. Dohlman was then promoted to "Docent" at the University of Lund. In 1958 he received an invitation to come to Boston and work at the then Retina Foundation (present Schepens Eye Research Institute), as well as at the Massachusetts Eye and Ear Infirmary and Harvard Medical School. This was preceded by three months of training in corneal surgery in Lyon, France, under Professor Louis→Paufique. After his arrival in Boston, Dohlman started the Cornea Service at the Massachusetts Eye and Ear Infirmary for clinical care of cornea patients, as well as related training and clinical research. He also started a laboratory for corneal physiology at the Retina Foundation. These activities grew substantially over the years to become a large referral service for complicated cornea patients, as well as a program for two-year fellowship training and corresponding research

in various aspects of corneal disease. Dohlman's own research during this time changed from biochemistry to corneal physiology and included such problems as corneal edema and corneal nutrition. Also, a number of clinical studies on keratoplasty, corneal edema, herpetic infections and trauma were published, mostly together with fellows. In 1968, Dohlman was appointed Assistant Professor at Harvard Medical School, 1969 Associate Professor, and 1974 Professor of Ophthalmology. That same year he became Chairman of the Department of Ophthalmology of Harvard Medical School, Chief of Ophthalmology at the Massachusetts Eye and Ear Infirmary and Director of the Howe Laboratory of Ophthalmology at Harvard. He stayed in these administrative positions for a total of fifteen years. During this time there was less time for personal involvement in research but the previously recruited clinical colleagues and scientists continued the established research lines. In 1989, at the age of 67, Dohlman retired from the administrative positions but continued full time work with cornea patients, as well as with teaching and research. His interests gradually became more focused on the development of keratoprosthesis surgery. He and his clinical and laboratory collaborators have developed keratoprosthesis designs, surgical techniques, postoperative treatment and repair procedures to a degree that has made this procedure considerably more successful than previously. His bibliography lists some 235 publications. Some examples are as follows: ″*Corneal edema*.(Dohlman, Klyce), In: *Principles and Practice of Ophthalmology*, 2nd edition. Albert, D. and Jakobiec, F. (eds), Philadelphia, WB Saunders.In press″, ″*Glucose concentration and hydration of the corneal stroma*. (Turss, Friend, Reim, Dohlman), Ophthalmic Res. 2:253-260, 1971″, ″*Collagenase in corneal ulcerations*. (Slansky, Gnadinger, Itoi, Dohlman), Arch. Ophthalmol. (Chicago), 82:108, 1969″, ″*Evaluation of adhesives for corneal surgery*. (Refojo, Dohlman, Ahmad,Carroll, Allen), Arch. Ophthalmol. (Chicago), 80:645, 1968″, ″*The precorneal tear film: I. Factors in spreading and maintaining a continuous tear film over the corneal surface*. (Lemp, Holly, Iwata, Dohlman), Arch. Ophthalmol.(Chicago), 83:89, 1970″, ″*Keratoprosthesis*. (Dohlman), In: *Cornea*. Krachmer J, Mannis M, Holland E. (eds). *Mosby Year-Book*, Vol. III, 1997, p. 1855-1863″.″*Guillaume Pellier de Quengsy*″ in Mannis,J. and Mannis,A *Corneal Transplantation-A History in Profiles* (Wayenborgh: Ostend 1999). He delivered the Friedenwald Award Lecture in 1971, ″*The function of the corneal epithelium in health and disease* (Dohlman), Invest. Ophthalmol.10: 383-407, 1971″ and the Castroviejo Award Lecture in 1981. Dr. Dohlman has also made considerable contribution to World Ophthalmology by training fellows from many countries, most of whom have later achieved important positions in the field. More than 200 such fellows have been trained in the Cornea Service since 1960. At this time (1999), C. H. Dohlman is still pursuing his work on a full time basis as Professor. (Department of Ophthalmology, Massachusetts Eye and Ear Infirmary, Harvard Medical School,, 243 Charles Street, Boston, MA 02114, U. S. A., phone: 1-617-573-3240, fax: 1-617-573-4369)(SM)

Doijer, D. (? –1896) Dutch ophthalmologist, who taught his special subject at Leyden, Holland, for 27 years. The place and date of his birth are unknown. He was the first, however, to be appointed to the chair of ophthalmology at the Government University. He was an intimate friend of →Donders of Utrecht, and of Meyer, of Copenhagen. For a time he was military surgeon in the Dutch East Indies (Java). In 1860 he returned to his native country to resume the study of the eye. Having studied with Donders again for two and a half years, he returned to Batavia, where, in a very short time,he resigned his military position, and engaged in private practice as an ophthalmologist. Doijer returned to his native country in 1869, at the at the age 42 years having become financially independent. He, was almost immediately elected extraordinary professor of ophthalmology at the Royal University of Leyden. He was a man of great industry and of high moral character. American Encyclopedia of Ophthalmology, Vol.6,p.4057.

Döllinger, Ignaz (1770-1841) German anatomist and physiologist,of some importance in ophthalmology. Born in Bamberg, son of the body-physician of the Prince Bishop of Bamberg, he pursued his academic studies at the University of Bamberg, and then studied medicine at Würzburg, Padua, and Vienna. He received his medical degree in 1791, and two years later became professor of medicine at Bamberg. In 1803 he was called to the chair of anatomy and physiology at Würzburg, a position which he held for twenty years,

when he moved to Munich in order to accept the corresponding chair at the university there. Later, he accepted the chair in the same subjects at Landshut. His most important investigations relate to the circulation of the blood, the processes of secretion, and to embryology. He wrote, however, "*Ueber das Strahlenblättchen im Menschlichen Auge* " (Nova Acta Acad.Caes. Leop. nat.Curiosum,IX,p.268) and Illustratio Ichnographica Fabricae Oculi Humani (Wirceb.1817,4). American Encyclopedia of Ophthalmology, Vol.6,p.4057-4058.

Dollond, John (1706-1761) The inventor of achromatic lenses. Dollond was born in London, and followed for many years the occupation of his father, that of silk-weaving. However, his leisure hours were all employed in the acquisition of a thorough knowledge, of physics, mathematics, and the ancient languages. In 1752, he gave up weaving and entered into partnership with his son Peter, who for a number of years had been in the business of manufacturing optical instruments. In 1758 Dollond invented the achromatic lens, a, device which, in the opinion of Sir Isaac →Newton, was an absolute impossibility. Newton had, in fact, declared that "all refracting substances diverge the prismatic colors in a constant proportion to their mean refraction," and believed the matter to be beyond dispute. →Euler, in 1747, suggested the possibility of an achromatic lens-system, basing his belief on the mistaken assumption that the human eye is achromatic. Dollond, proceeding further, discovered the basic fact that flint glass does really produce a greater dispersion in proportion to its refraction than does crown glass. The rest of the problem was easy. He merely combined a double-concave lens of flint glass with a double convex lens of crown glass. The images produced by the combination(a proper proportion between the constituent lenses being observed)were, though enlarged, yet absolutely achromatic. In 1761 Dollond became a Fellow of the Royal Society and Optician to the King. A little later in the year, while reading a work on astronomy, he was stricken with apoplexy and soon died. American Encyclopedia of Ophthalmology, Vol.6,p.4058.

Dombrowski, John Paul (1857-1904) American ophthalmologist of central Illinois. Born in Poland, he moved with his father's family at a very early age into eastern Germany, where, at Königsberg, he received his preliminary Education. He received His medical degree at the University of Berlin in 1880.Taking a surgeoncy on a steamer in the Brazil trade, he made many trips to South America. On one of these trips he made the acquaintance of a Mr. Wolff, editor of a German newspaper at Peoria, Ill., who persuaded him to settle in Peoria, Ill., where he soon acquired a large and lucrative practice, not only in Peoria but in the entire central part of Illinois. In 1894 he returned to Germany for further study and research. Returning to Peoria, Dombrowski was even more successful than before. He was an indefatigable student, spending many hours daily at his books and at the expense of his health. For many years before his death he suffered much from digestive disturbances. It was his habit to rise at 4 or 5 AM, light the fire prepared in a stove in his study, and then crawl into an arctic sleeping bag, and read the current English, French and German literature of his special field. On the stove he kept a pot of coffee from which he drank to excess. He spent considerable time in perfecting himself in operative surgery of the head, sending to Chicago for dissecting material. This material was kept in an old ice-box in a back room of the house. One cadaver, that of a child, was sent directly to the house by mistake, where it was opened in the presence of the entire family, and the consternation that ensued may be easily imagined. In appearance Dombrowski was tall and slender, with heavy black hair, brushed à la pompadour. His eyes were very black and piercing, and he wore a small black mustache. He spoke with a marked German accent, which he was unable to overcome in spite of much study. His recreations were very few. He was fond of music, and was an accomplished pianist. One of his few luxuries was his team of magnificent black horses. These he delighted driving at breakneck speed, caring little whether the carriage ran on two wheels, or the usual four. This habit was so confirmed that Mrs. Dombrowski and his three children would never ride with him. American Encyclopedia of Ophthalmology, Vol.6,p.4059.

Donaldson, Ebenezer (1860-1909) Irish ophthalmologist,born in County Cork, Ireland. Donaldson studied at the Dublin School of Medicine, and, after the completion of his work,settled in Londonderry. He founded the *Londonderry Eye, Ear and Throat Hospital*,

of which he was joint surgeon with Dr. Hunter. He never entirely relinquished general practice, but much of his work was ophthalmic. He was a constant contributor to *The Ophthalmoscope*. He died in 1909, aged 49.The Ophthalmoscope 1909.

Frans Cornelis Donders in 1873

Donders, Frans Cornelis (1818-1889) One of the greatest ophthalmologists of all time. He was born in Tilburg in Noord-Braband, Holland, the son of a merchant who died a year later. Of nine orphans, the subject of this sketch was the only boy. From his 13th to his 17th year, he attended the Latin school at Boxmeer, where, from all accounts, the instruction in everything excepting Latin only, was extremely poor. The mother desired her son to become a theologian and minister, and Donders, it seems, for a time attempted to develop himself in accordance with his mother's wishes-though all the while his predilection ran toward natural science. In contests such as these, youth, eventually, is seen to have its way. So, in 1835, Donders began his medical studies in the military-medical department of the University of Utrecht. After several years of study there, also at Vliessingen and at The Hague, he proceeded to the University of Leyden, where he received his medical degree in 1840. His thesis was entitled "*Dissertatio Sistens Observationes Anatomico-Pathologicas de Centro Nervoso.*" He was then for a time "Lector Anatomiae et Physiologiae" at the Royal Military-Medical School at Utrecht. He resigned this position in 1848, in order to accept the extraordinary professorship of these subjects at Utrecht University. Now 30 years of age, and renowned in both anatomy and physiology, he had not even dreamed of devoting his attention especially to ophthalmology. Little by little, however, because of his investigations into the anatomy and physiology of the eye, he was drawn to the speciality in which he was soon to become so famous. The change was much assisted by the fact that, as a physiologist, he was frequently consulted by practicing physicians with regard to questions of physiologic optics. In 1851, the annus mirabilis for ophthalmology (that was the year in which the ophthalmoscope was invented.) he went to London to attend the first great exposition in that city, and, while there, he chanced to call at the house of Sir William →Bowman, the noted English oculist, and, as luck would have it, whom should he meet in that house but the celebrated German ophthalmologist, Albrecht von Graefe? Between these three, warm-hearted, as well as distinguished, men, arose at once an intimacy that was never broken up until, in 1870, the youngest of the trio, the lamented Albrecht von Graefe, was removed from the circle by death. Until that date, however, these three men were in constant correspondence with one another. They were, in fact, a constant source of stimulus and encouragement , each to the other two, and of aid and assistance to one another in every proper way. From the time of his meeting with Bowman and von Graefe, the ophthalmologic genius of Donders seems to have been thoroughly aroused. He had written on ophthalmology before this time, but now first one epoch-making book or article on the favorite subject, and then another, came sparkling from his pen-for he always wrote with a crystalline clearness and with a kind of verve which showed his heart was in his work. In 1852 he was made professor-in-ordinary of ophthalmology in his home university. From that time forward he wrote more brilliantly than ever. His masterpiece was entitled "*On the Anomalies of Refraction and Accommodation of the Eye*" (ed. by New Sydenham Society, 1864; German trans. by Otto→Becker in 1866; an Italian by A.→Quaglino, and a French edition by de→Wecker in "*Manuel d'Ophtalmologie*," (This epoch making affair has not been wholly superseded even to the present day. What ophthalmologic library, indeed, can be considered complete without a copy of "Donders"?). The most important of his other writings are as follows: (Composed before the meeting with →Bowman and von →Graefe:)1. "*De Bewegingen van het Menschelyk Oog*" (1846). 2. "*Ueber die Bestimmung des Sitzen der Mouches Volantes*" (Zeitschr. für Physiolog. Heilk., 1847). For further historical information on this subject, see, herein, the sketches of →Deschales and→Pitcairn. 3. *De Anwending van Prismatische Brillenglazen tot Genezing van Scheelzien*" (Het Nederlandsch Lancet, 1848).(After the fateful meeting:) 4. "*Voedings-Beginseln. Grondslagen Eener Algemeene Voedingsleer*. (1852). 5. "*Over den Invloed des Luchtdrukking op de Hartswerking*" (Ned. Lancet). 6. "*Bewegingen van Longen en Hart by de Ademhaling*" (1853). 7. "*De Werking der Oogspieren*" (1854). 8. "*Over de Verhouding der Onzichtbare Stralen van Sterke Breekbaarheid tot de Vochten van het Oog*" (1854). 9. "*Over den M. Cramptonianus en over het Accomodatie Vermogen by Vogels*" (1855). 10. "*Winke iiber den Gebrauch von Brillen*" (1858). 11. "*Het Lichtbrekend*

Stelsel van het Menschelyk Oog in Gezonden en ziekelyken Toestand" (1861).12. "*Astigmatisme en Cilindrische Glazen*" (1862).13. "*De l´Action des Mydriatiques et des Myotiques*" (1865).14."*Invloed der Accomodatie op de Voorstelling van Afstand*" (1869).15. "*Het Binoculaire zien en de Herkenning der Derde Dimensie*" (1869).16. "*Explication sur les Systèmes Chromatiques* " (1882). From 1855 until his death, he acted as co-editor with →Arlt of the *"Graefe Archiv für Ophthalmologie."* In 1858 he founded the "Nederlandsch Gasthuis voor Ooglijders" (Netherlandish Hospital for Eye-Sufferers). The funds for the institution were all contributed voluntarily by the Dutch people. Donders also invented a number of ophthalmic instruments and apparatuses. Of these the most important is his "Ophthalmotonometer". In 1866-67 he founded his physiologic laboratory which soon was known throughout the ophthalmologic world. In fact it was in this laboratory that many of Donders' most important discoveries and inventions were made. On the occasion of his 70th birthday, a notable festival was held in Utrecht, laymen and doctors alike participating. Very much sorrow, however, was shown, as well as joy, on this celebrated occasion,for, by the rigorous laws of Holland, a man of 70 years must leave forever his position as a teacher.Soon after the 70th birthday, with its elaborate festival and its strange commingling both of joy and of grief, Donders proceeded again to London, where he was honored in every way. While,however, he was in that city, he suddenly lost the faculty of speech. His memory, too, very soon began to fail. Then consciousness itself disappeared, and, at length, on Mar. 24th 1889, he passed away honored and mourned, it is scarcely necessary to add, by many thousands. American Encyclopedia of Ophthalmology, Vol.6,p.4060-4064.

Donegana, Carlo (1776-1828) Italian physician of Como,Italy. He studied in Milan and in Pavia under Antonio→Scarpa, and became surgeon, oculist, and obstetrician to the town of Como. He improved Scarpa's iridodialysis procedure by combining it with an incision into the detached tissue (iridotomedialysis); he also published an influential study of retinoblastoma. He wrote: *Della pupilla arificiale ragionamento corredato di osservazioni e rami del chirurgo*. Milano 1809.

Donné, Alfred (1801-1878) A Parisian anatomist, physiologist, and hygienist, of some importance in ophthalmology, because of his "*Recherches Physiologiques et Chimico-Microscopiques sur les Globules du Sang, du Pus, du Mucus, et sur ceux des Humeurs de l'Oeil* " (1831) He was born at Noyon (Oise) and received his medical degree in 1831, gave courses in microscopy, and was appointed sublibrarian to the Faculty. American Encyclopedia of Ophthalmology, Vol.6,p.4064.

Henri Dor

Dor, Henri (1835-1912) Swiss born, French ophthalmologist of Lyons. Dor studied medicine in Zürich. After that he travelled, working with famous masters of that time: →Jaeger in Vienna, →Sichel & →Desmarres in Paris, →Bowman and →Critchett in London and →Mackenzie in Edinburgh. He formed a close friendship with Albrecht von →Graefe in Berlin where he spent 18 months. After this he spent time with F.C. →Donders in Utrecht and finally settled in Vevey as ophthalmic surgeon in 1860. In 1867 he accepted the chair of ophthalmology in Berne. He migrated to Lyons in France in 1876. With the help of friends , he founded a clinic in which he cared for more than 35000 patients between 1877 and 1912. Dor founded with E. →Meyer of Paris in 1882 the *Revue Générale d´Ophtalmologie* and was co-founder of the Heidelberg Congress and of the French Ophthalmological Society. He wrote: *Des différences individuelles de la réfraction de l'oeil*. Paris 1860 ; *De l´emploi de la vase dans les bains de la Mer de Suède* Paris 1861 ; *De la Vision chez les arthropodes* (Bibliothèque Universelle) Genève 1862 ?;*Ueber einige der häufigsten Krankheiten und Formfehler des Auges* Bern 1868; *Kurze Anleitung zur Untersuchung der Seeschärfe* etc. Bern 1870 ; *Das Stereoscop und das Stereoscopische Sehen* Basel 1871; *Échelle pour mesurer l'acuité de la vision chromatique*. Paris 1878 ; *Compte-Rendu statistique de la Clinique ophthalmologique de l´Université de Berne* 1878. Sixty years after his death, near intact , Dor´s complete library, was acquired by J.-P. Wayenborgh in the early 70ties, completed (with Emil→Bock´s library), and was 1986 integrated in the Mary and Edward →Norton Library, Bascom Palmer Institute in Miami. American Encyclopedia of Ophthalmology,Vol.6,p.4065-4067; The Ophthalmoscope, 1912,741-742. JPW. Albert

Dornblüth, Friedrich Karl (1825-?) German military surgeon, of a slight ophthalmologic importance because of his "Bau der Cornea Oculi"(Zeitschr. für Rat. Med. N. F. vol.VII and VIII).Born at Plau, in Mecklenburg, the son of a well known physician, Albert Ludwig Dornblüth, he studied at Rostock, Leipzig and Heidelberg, receiving his medical degree in 1849, not in 1825 (the year of his birth)as Hirsch's "Biographisches Lexikon" will have it. After considerable service as military physician he settled as practicing physician in Rostock, where, in 1899, he became Medical Councilor. American Encyclopedia of Ophthalmology,Vol.6,p.4068.

Dove, Heinrich Wilhelm (1803-1879) German physicist and meteorologist. Dove was born in Liegnitz, Prussia and received a Ph.D. in 1826 at the University of Königsberg. He lectured there for some years before settling in Berlin, where he became a professor at the university in 1844. Mainly known for his contributions to meteorology, Dove also wrote on optics: *Darstellung der Farbenlehre und optische Studien*. Berlin 1853; *Optische Studien* Berlin 1859; *Anwendung des Stereoskops um falsches von echtem Papiergeld zu unterscheiden* 1859 (Use of the stereoscope to differentiate real from fake paper money); *Gedächtnissrede auf Alexander von Humboldt* 1869; *Über Electricität* Berlin 1848. Albert

Dowling, John E. (1935-) American biologist specializing in basic retinal studies. Presently Maria Moors Cabot Professor of Natural Science at Harvard University. He received his Ph.D. degree in 1961 from Harvard University having studied under Professor George Wald. His thesis was titled "*Vitamin A Deficiency and the Mechanisms of Night Blindness*". He was Assistant Professor at Harvard University (1961-1964), Associate Professor at Johns Hopkins University (1964-1971), and he returned to Harvard as full Professor in 1971. He was Chairman of the Biology Department at Harvard University from 1975-1978, Associate Dean of the Faculty of Arts and Sciences at Harvard from 1980-1984 and Master of Leverett House from 1981-1998. He was President of the Association of Vision and Ophthalmology in 1997-98, and is presently President of the Corporation of the Marine Biological Laboratory, Woods Hole, MA. He has served on the Editorial Boards of the *Proceedings of the National Academy of Sciences*, *Journal of Neuroscience*, *Brain Research*, *Investigative Ophthalmology and Vision Research*, *Journal of Comparative Neurology and Physiological Reviews*. He has published 3 books - *The Retina: An Approachable Part of the Brain* Harvard University Press, 1987, *Neurons and Networks* Harvard University Press, 1992 and *Creating Mind* W. W. Norton, 1998. With BARLOW Jr., Robert B., and WEISSMANN, he edited: *Gerald Biological Century: Friday Evening Talks at the Marine Biological Laboratory* 1993. He has edited 7 volumes of collected papers, and his laboratory has published over 220 papers in scientific journals or books on the fine structure of the retina (Dowling, J. E. and Boycott, B. B. *Organization of the primate retina: Electron microscopy*, Proc. Roy. Soc. B, 166, 80-111, 1966), *electrophysiology of retinal neurons* (Werblin, F.S. and Dowling, J. E. *Organization of the retina of the mudpuppy*, *Necturus maculosus: II. Intracellular recording*. J. Neurophysiol. 255, 339-355, 1969), *retinal pharmacology* Knapp, A. G. and Dowling, J. E. *Dopamine enhances excitatory amino acid-gated conductances in cultured retinal horizontal cells*. Nature, 325, 437-439, 1987 and most recently on retinal development and genetics Brockerhoff, S. E., Hurley, J. B., Janssen-Bienhold, U., Neuhauss, S. C., Driever, W. and Dowling, J. E. *A behavioral screen for isolating zebrafish mutants with visual system defects*. Proc. Natl. Acad. Sci., 92, 10545-10549, 1995. He is an elected member of the USA National Academy of Sciences, American Philosophical Society, and American Academy of Arts and Sciences. He received the Friedenwald Prize from the Association of Vision and Ophthalmology (1970); The Retinal Research Foundation Award of Merit (1981); The Prentice Medal from the American Academy of Optometry (1991); The Von Sallman Prize (1992), and the Helen Keller Prize (2000). He received an honorary M.D. degree from the University of Lund, Sweden in 1982. (Department of Molecular and Cellular Biology, The Biological Laboratories, Harvard University, 16 Divinity Avenue, Cambridge, MA 02138; phone: +1-(617)-495-2245, fax: +1-(617)-496-3321, e-mail: dowling@fas.harvard.edu)

Doyne, Philip Geoffrey (1886-1959) British ophthalmologist**,** born the elder son of Robert→Doyne, whose name is esteemed in ophthalmological circles all over the world.

He was educated at Winchester, Trinity College, Oxford, and St. Thomas's Hospital, from which he qualified in 1913 following this by his F.R.C.S. (Eng.) in 1914. He served with the R.A.M.C. in the 1914-18 war and spent three years in Mesopotamia, becoming the Army Eye Specialist in Baghdad. He settled in London after the war and in due time was appointed ophthalmic surgeon to St. Thomas's Hospital and surgeon to the Royal London Ophthalmic hospital (Moorfields). For a number of years he was ophthalmic surgeon to the Hospital for Sick Children, Great Ormond Street. He was an examiner for the Diploma in Ophthalmology at Oxford for some years before the university discontinued the examination. He became a Vice-President of the O.S.U.K., but a major affection was for the Oxford Congress founded fifty years ago by his father. Of this he was Master in the years immediately after the 1939-45 war. BJO 1959,43:255-256.

Doyne, Robert Walter (1857-1916) British ophthalmologist from Oxford, father of Philip G. Doyne. He was educated at Marlborough, Keble College, Oxford, the Bristol Medical School, and St.George´s Hospital, London. He then entered the medical service of the Navy and was surgeon on H.M.S. "Temeraire", but after marriage in 1885, settled in Oxford and devoted himself to ophthalmology. At that time there was neither an ophthalmic surgeon or clinic in the city. Even at the County Hospital there was no dark room, test-type or special appliances. After many difficulties he founded with the help of influential friends, the Oxford Eye Hospital. In 1902 Doyne was appointed the first Reader in Ophthalmology at the University of Oxford, a post instituted by Mrs. Margaret Ogilvie. He held that appointment which was conjoined with that of senior surgeon to the Oxford Exe Hospital until his health broke down in 1913.Doyne was also consulting ophthalmic surgeon to the Radcliffe Infirmary, surgeon to the Royal Eye Hospital, London and held besides a number of minor appointments. Doyne´s name was associated with several conditions: "*Doyne´s Cataract*" (Discoid cataract) , "*Doynes Choroiditis*" (a peculiar kind of degeneration of the choroid) , "*Doyne´s Iritis*"("Guttate", a form of inflammation of the iris) and "*Doyne´s conjunctivitis*" (a form of conjunctivo-blepharitis). He was the first in Britain to describe the condition of "pseudo-cataract" (so-called "lens with double focus") and to point out that the sight of those affected with retinitis pigmentosa might be sometimes considerably improved by the operation of removing the crystalline lens. Doyle invented several ingenious appliances (stereoscopes, tonometers and retinoscopes) and wrote"*Notes on the more Common Diseases of the Eye*" London 1896 and contributed many articles in the earlier years of *The Ophthalmoscope*. He wrote in that journal "The Eye in Sport" , an article he had intended to publish in book form. He was behind the University of Oxford in recognising eye work by instituting a Diploma in Ophthalmology in 1910. From 1904 Doyne inaugurated a series of annual meetings at Keble College which were so successful that in 1910 they were recognized as the "*Oxford Ophthalmological Congress*", of which he was appointed first Master. The Ophthalmoscope,1916, p.562-564. Albert

Draeger, Jörg (1929 -) German ophthalmologist. Medical degree 1955, University lecturer Hamburg University 1962, professor 1968, director Eye Clinic in Bremen same year, Professor and Chair of ophthalmology Hamburg University. He wrote: *Geschichte der Tonometrie* 1961 (History of Tonometry).President of the German Ophthalmological Society 1986-87; *Corneal Sensitivity.Measurement and Clinical Importance* 1984.Contributions in different treatises. Co-editor: *Ophthalmic Research..* 265 articles in international journals. Kürschners Gelehrten- Kalender 1966,p.416 & 1987,p.806. F. Hollwich Ophthalmologenverzeichniss 1964,p.82-83(extensive)

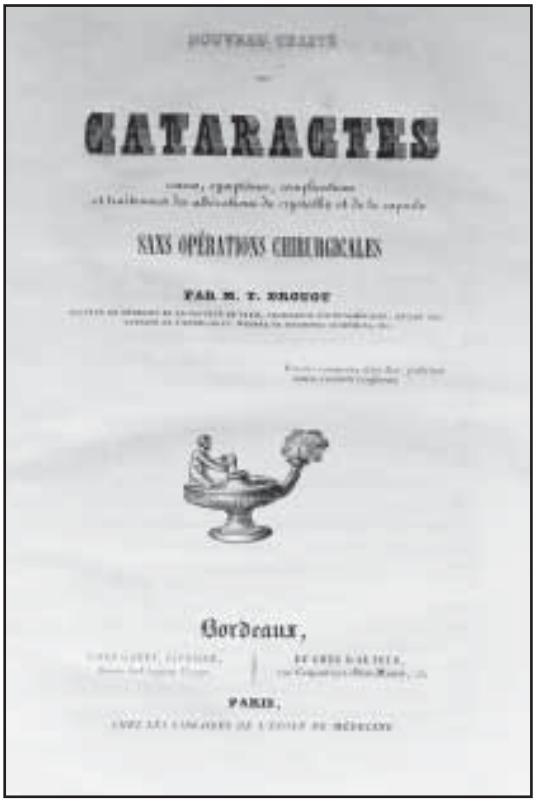
Drance, Stephen Michael (1925 -) Canadian Ophthalmologist, Emeritus Professor and Head of Department Ophthalmology University of British Columbia. Graduated from the University of Edinburgh in 1948. Became Squadron Leader in the Royal Air Force during National Service. Studied Ophthalmology in York under Mr.Magnus, Edinburgh under Drs Traquair & Scott and Oxford where his research career started under the supervision of Dr.Antoinette Pirie. His specialized interests in Glaucoma research started at Oxford. Obtained Diploma of Ophthalmology in 1954 and became a Fellow of the Royal College of Surgeons of England in 1956. Emigrated to Canada to become Assistant Professor at the University of Saskatchewan in 1957, Associate Professor at the University of British

Columbia in 1963, Professor in 1966 and Head of Department at UBC and the Vancouver General Hospital from 1973 till 1990. During this period built the Eye Care Centre at the Vancouver General and UBC which brought together the clinical and research activities of the Department. His research, predominantly in the glaucomas, resulted in 345 publications and editing 10 books. The main research interests included the *diurnal fluctuations of intraocular pressure* (Amer. Arch. Ophthal., 64:494, 1960), *the effects of scleral rigidity on the measurements of the IOP* (Amer. Arch. Ophthal., 63:668, 1960), *the mechanism of the water drinking provocative test* (Trans. Ophthal. Soc., U.K., 78:565-574, 1958), *the relationship of induced field defects and systemic blood pressure* (Amer. Arch. Ophthal., 68:475, 1962), *the risk factors for normal pressure glaucoma* (Brit. J. Ophthal. 56:229-242, 1972), *discriminant analysis in separating glaucoma patients from normals* (Arch Ophthalmol 96:1571-1573, 1978, Arch. Ophthal., 96:1571, 1978, *the use of static threshold perimetry in determining glaucomatous loss* (Can. J. Ophthal., 2:249, 1967, Invest. Ophthal., 8:84, 1969), *study of psychophysical disturbances in glaucoma* (Amer. J. Ophthal., 64:56, 1967; Can. J. Ophthal., 6:311, 1971; Ophthal. Research., 2:295-303, 1971; Can. J. Ophthal. 11:55, 1976; Can. J. Ophthal., 2:140, 1977; Arch. Ophthal., 99:829-831,1981; Am. J. Ophthal., 102:617-620, 1986; Perimetry Update 1990/91. Proceedings of the International Perimetric Society Meeting. (ed.) R.P. Mills, A. Heijl. Kugler and Ghedini, 351-56, 1990; Journal of Glaucoma 2:87-95, 1993; J of Glaucoma 5:156-169:1996), *the effects of aging on the axonal count of the optic nerve* (Arch. Ophthal., 98:2053, 1980; Am. J. Ophthalmol., 97:761-767, 1984), *the significance of the retinal nerve fibre layer* (A. J. Ophthalmol. 98:566-571, 1984; Am. J. Ophthal. 101:208-13, 1986; Arch. Ophthalmol. 103:203-5, 1985), *the mode and rate of progression of glaucomatous damage* (Am. J. Ophthal. 98(4):443-445, 1984; Am. J. Ophthal. 101:1-6, 1986), *the discovery* (Can. J. Ophthal., 5:137, 1970) *and importance* (Brit. J. Ophthal., 55:73, 1971) *of disc hemorrhages in the disease, the relationships of varying disc appearances with systemic and local factors* (Ophthalmology 103, 640 - 649,1996), *vascular and vasospastic risk factors in glaucoma* (Ophthalmology 102,61-69, 1995; AJO 119, 685 - 693,1995;A.J.O., 105:35-39, 1988; A.J.O 126;487-497, 1998; Brit J Ophth 77:25-29,1993; Ophthalmology 97:49-56, 1990;), *the validation of computerized perimetry* (Arch. Ophthal., 99:832-836, 1981), *the high prevalence of angle closure glaucoma in the Inuit population* (Can. J. Ophthal., 9:278, 1972). He has attempted to show that there are a number of *differing glaucoma populations varying as to their response to intraocular pressure* (Brit. J. Ophthalmol. 74, 196-200, 1990) *and manifesting different disc appearances and functional psychophysical damage* (Invest. Ophthalmol & Vis Sci 31:11:2367-72, 1990; Ophthalmology 98:1533-1538, 1991; Journal of Glaucoma 1;32-38, 1992; A.J.O. 108:636-642, 1989; Ophthalmology, 96, 9:1312, 1989; Ophthalmology, 96:12-15, 1989; A.J.O., 106:397-399, 1988) His last research study was *the co-design and co-supervision of the multicentre normal tension glaucoma study* (A.J.O 126;487-497, 1998). He was awarded Honorary Degrees from Dalhousie University, Halifax (1995), Oulu University (1998) and the University of British Columbia (1998). He became an Honorary Fellow of the, Australian Royal College of Ophthalmology (1992), and an Honorary Fellow of the Royal College of Ophthalmologists, (1995). He became in November 1998 Dr.Sc. Honoris Causa at UBC. He received the President's Career Award of the Science Council of British Columbia (1994). In 1987 he became an Officer of the Order of Canada. He was President of the Canadian Ophthalmological Society (1975), President of the International Perimetric Society (1980 - 1988), President of the Glaucoma Society of the International Congress of Ophthalmology (1982 - 1990), Honorary President of the International Congress of Ophthalmology in Toronto (1994), Chairman, Advisory Committee, Alcon Research Institute (1998 -), Vice President of the American Academy of Ophthalmology. He is the recipient of a number of awards among them the William Mc Kenzie Memorial Lecture and medal, Glasgow (The Ocular Circulation in Health & Disease, ed J.S.Cant ,Henry Kimpton, London 1969), the Doyne Lecture & medal, Oxford Congress (. Trans. Ophthal. Soc., U.K., Vol. XCV, Part II, p. 288, 1975.), the Bowman Lecture & medal, London (Eye 6,337-345;1992), the Gregg Lecture & medal, Sydney, the Inaugural Phelps Memorial Lecture of the American Glaucoma Society, Inaugural Goldmann Lecture of the International Glaucoma Society, Shaffer Lecture American Academy of Ophthalmology (Ophthalmology. 92, 1985), Schwickerath Lecture, German Ophthalmological Society Heidelberg (*Fortschritte der Ophthalmologie*,

85:611-613, 1988). He held a number of community posts including the Board of Directors Vancouver Art Gallery (1988 - 1990), President, Vancouver Chamber Choir (1996 - 1998), President, Vancouver Summer Festival Society (1997 -), Chairman University Hill School Board (1966 - 1979) (1561 Westbrook Crescent, Vancouover, BC V6T 1V9, Canada: phone: 604-228-8302; fax: 604-882-7970, e-mail: smd@interchange.ubc.ca) (AB)

Dreyer, Johann Traugott Ritter von der Iller (1804-1871) Austrian ophthalmologist of Vienna. Dreyer studied ophthalmology under Friedrich→Jaeger from 1830 to 1833. He received his M.D. in 1831, with a dissertation on a blepharoplasty procedure developed by his teacher: *Nova blepharoplastices methodus*. Vienna 1831. Dreyer became a military physician and administrator, his career culminating in his appointment as director-general of the army medical staff in 1855.

Drouot, Théophile (1803-1886) French ophthalmologist, born in Bordeaux. Drouot received his M.D. at Paris in 1832 and became a well known Parisian oculist. He wrote: : "*Recherches sur la Crystallin et ses Annexes*" (Bordeaux, 1837); *Nouveau traité des cataractes; causes, symptômes, traitement des altérations du crystallin et de la capsule sans opérations* Bordeaux c. 1840 ; *Des maladies de l'oeil, confondues sous les noms d'amaurose, goutte sereine paralysie, amblyopie, etc*. Paris 1841 ; *Des erreurs des oculistes sur la cataracte, l'amaurose et les traitements opposés à ces affections*. Paris 1843 ; *La verité sur le traitement médical des cataractes et sur les résultats à des opérations chirurgicales*. Paris 1848 ; *Des effets pernicieux du mercure appliqués au traitement des maladies des yeux*. Paris 1849 ; *Traité médical des cataractes des nevralgies, amauroses, etc*. Paris 1863 ; *Précis de médecine rationelle et de thérapeutique endémique et spécifique* 1850. American Encyclopedia of Ophthalmology,Vol.6,p4083. Albert


CATARACTES

SANS OPÉRATIONS CHIRURGICALES

Bordeaux,

PARIS,

Drouot´s undated book about Cataract treatment without surgery

Drummond, James L. (?-?) Irish comparative anatomist, who did excellent work in connection with the comparative anatomy of the eye. His life dates are unknown. An Irishman by birth, Drummond studied at the University of Edinburgh, receiving his medical degree in 1814,with the thesis, "*De Oculi Anatomia Comparativa*." He practiced for a time in Belfast. His most important composition was "*On Certain Appearances Observed in the Dissection of the Eyes of Fishes*" American Encyclopedia of Ophthalmology, Vol.6, p.4084.

Du Bois, Abram (1810-1891) American ophthalmologist. Du Bois was a pupil of Dr. Kearney →Rodgers, and one of the founders of the American Ophthalmological Society. He wrote very little, but was an excellent operator and a munificent benefactor of ophthalmology. For nearly fifty years he was attending and consulting surgeon to the New York Eye and Ear Infirmary, and, after his death his family presented the sum of $80,000 for the erection of a new pavilion at that institution as a memorial to the husband and father. William A. Du Bois, Matthew B. Du Bois, and Catherine Du Bois, sons and daughter of Abram Du Bois, also presented to Columbia University the sum of $18,000, to be used for the purpose of founding a scholarship in ophthalmology to be known as "The Doctor Abram Du Bois Memorial Fund." The holder of the scholarship is expected to devote himself to postgraduate studies, preferably of a scientific character, connected with ophthalmology in foreign and American universities. American Encyclopedia of Ophthalmology,Vol.6,p.4086-4087.

Du Laurens, André 1558-1609, French physician and anatomist. Du Laurens was born in Arles, in the South of France. He received his M.D. at Montpellier in 1583 and taught there until 1598. He became physician to King Henri IV. He wrote a famous anatomy (1589) and many other books. Among those *Discours de la conservation de la veuë* Paris 1598, English edition *A discourse of the preservation of the sight* London 1599. Albert

Du Perron see **Descartes, René**

Alexander Duane

Duane, Alexander (1858-1926) American ophthalmologist, born in Malone, N.Y. Duane was educated at Union College and qualified in Arts 1878, obtaining his M.D. at the College of Physicians and Surgeons, New York in 1881. After holding a resident appointment at the New York Hospital , he began to practice in New York City in 1884. Four years later, in 1886, he moved to Norfolk, Virginia where he practiced for the rest of his life. For many years he was associated with Hermann →Knapp. Duane contributed some 70 papers to journals , supplied the medical terms for Webster´s *International Dictionary* and those on ophthalmology for Forster´s *Encyclopaedic Dictionary of Medicine*. He translated Fuchs *„Lehrbuch der Augenheilkunde"* and wrote: *"A new Classification of the motor anomalies of the eye based upon physiological principles"* 1897, and *"Rules for Signalling on Land and Sea"*1899, 2nd edition 1901. He received in 1919 the honorary degree of D.Sc. from his old college, was a member of the American Ophthalmological Society since 1902. He received the Howe Medal in 1923 and was elected President of the American Society in 1924. Duane was particularly interested in physiological optics and was an authority on the movement of the eyes and their motor anomalies. British Journal of Ophthalmology,1929, vol.XI, p. 255-256

Dubreuil, Alphonse (1835-1901) French ophthalmic surgeon, professor at the surgical clinic at Montpellier from 1875 to 1895. He started his medical education in Montpellier, finishing in Paris in 1858. In 1866 he became surgeon at the Hôpitaux de Paris, moving later back to Montpellier. Dubreuil wrote *De l´iridectomie* Paris 1866 (Thesis) and *Elements de médecine opératoire* 1875.

Dubreuil, Joseph-Marie 1790-1852, French surgeon and professor of anatomy at Montpellier from 1838 to 1852. He wrote two treatises on arteries in 1841 and 1847 and a few papers on ophthalmology.(Truc/Valude)

Duchelard, Michel (19th century) Swiss itinerant cataract surgeon. He wrote: *Manuel de l'opération de la cataracte par extraction et par abaissement; de la pupille artificielle et de la fistule lacrymale* Berne 1812.

Duddel, Benedict (flourished in early 18th Century) British oculist. He was a pupil of →Woolhouse, the great English oculist and charlatan, who practised in Paris.Duddel's works are as follows: *"Prosodia Chirurgica"* (London 1729) ; *"Treatise on the Diseases of the Horny Coat of the Eye and the Various Kinds of Cataracts"* (London, 1729) ; *"Appendix to the Treatise of the Eye and the Cataract, with an Answer to Cheselden's Appendix Relating to His New Operation Upon the Iris of the Eye"* (London, 1833) ; *"A Supplement to the Treatise on the Diseases of the Horny Coat,"* etc. (London, 1736). Duddel is especially important for the history of cataract extraction. He it was who proposed (in the third of the works above mentioned) that, in cases of soft cataract which would not go to the floor of the vitreous chamber under the pressure of the cataract-needle, to make an incision in the cornea and the anterior capsule of the lens, and so to extract the cataract. The date of this proposal was 1733, so that, as the letter in which →Daviel announced (in *"Mercure de France"*) his method of extraction did not appear till 1748, it is easy to see that Duddel was, in a sense, a predecessor of Daviel in the performance of cataract extraction. However, Duddel actually extracted only such cataracts as had been dislocated into the anterior chamber, and, moreover, had in mind, it would seem, nothing but cataracts of the soft variety. The way in which Duddel performed his operation is interesting. He employed a lancet concealed in a canula. With this device he perforated the cornea just beneath the lower margin of the pupil. Then, drawing the lance back into the canula, he introduced the latter (with the lance still in it) into the anterior chamber and as far as the inferior pupillary border. Pulling the edge of the iris down, he once again made use of the lancet, this time for the purpose of incising the anterior lenticular, capsule. He then seized the lens with a hook, and drew it forth. Duddel also contributed useful information concerning the development of after-cataract. Thus, in answer to Taylor's inquiry as to whether, after a couching operation in a young person, a cataract can again appear in the same eye, without the reclined lens having mounted to its

old position, Duddel replied that this could be the case, the cause thereof being a cloudiness in the anterior capsule of the lens (arachnoides) produced by an inflammation in that structure. There is also a curious passage in the first of Duddel's ophthalmologic writings (*"A Treatise,"* etc-.) in which he declares that, in mirror-makers, little balls of mercury form in the anterior chamber of the eye and that these " be removed in no other way than via an incision in the cornea. American Encyclopedia of Ophthalmology, Vol.6, p.4088-4090.

Duddell, Benedict *see* **Duddel Benedict**

Duehr, Peter A. (1903-1994) American ophthalmologist. Chairman of the division of ophthalmology of the University of Wisconsin Medical School, Madison, from 1954 to 1970. Duehr was born in Hayward, Wisconsin, the eighth of nine children. After graduating as the valedictorian of the Hayward High School in 1922, he worked his way through college by serving during the summers as a fishing guide on Lac Courte Oreilles in northern Wisconsin. He received his bachelor's and master's degrees from the University of Wisconsin and his medical degree from Rush Medical College in Chicago, Illinois. In 1934, after completing a residency in ophthalmology and otolaryngology at the University of Wisconsin Medical School, he joined the part-time faculty of that school, rising to the rank of clinical professor of ophthalmology. During his tenure as chairman of the Division of Ophthalmology and while simultaneously chief of staff at the Davis Duehr Eye Associates of Madison, he recruited the nucleus of full, and part-time faculty members who provided the foundation for the subsequent development of the University of Wisconsin Medical School's Department of Ophthalmology and Visual Sciences. Duehr served as teacher and role model for the Medical School's ophthalmology residents for four decades. AJO 1994, 119:683-684; Arch Ophthalmol 1995,113:135

Duffin, Edward Wilson (1800-1874) British ophthalmologist born in Yorkshire, who received his M.D. at the University of Edinburgh in 1821. From 1828 to 1868 he practiced general surgery in London. He was one of the earliest introducers of the operation for strabismus in England. He authored: *Practical remarks on the new operation for the cure of strabismus or squinting*. London 1840.

Marc Dufour

Dufour, Marc (1843-1910) Famous Swiss ophthalmologist.He received his M.D. in 1865 from the Zurich University with the thesis *„La constance de la force et les mouvements musculaires"*. He worked under →Horner in Zurich, →Liebreich in Paris and von →Graefe in Berlin. In 1869, while still with von Graefe, he received a call to assist and later replace Recordon at the Lausanne *Asile des Aveugles* . After the 1870 war Dufour founded, in Lausanne, the Ophthalmic Institution and became professor of ophthalmology at Lausanne University, a post he retained until his death.Dufour received 1906 the *Légion d´Honneur* by the French government.He wrote: *"Guérison d´un aveugle-né; observation etc."* Lausanne 1876, *"Beiträge zur Ophthalmologie als Festgabe Friedrich Horner zur Feier des Fünfundzwanzigjährigen Jubiläums..etc."* Wiesbaden 1881, *"Leçon d´ouverture du cours de ophtalmologie pratique"* Lausanne 1891. The Ophthalmoscope, 1910,p.686-687. Albert Source Book of Ophthalmology,p.91.American Encyclopedia of Ophthalmology,Vol.6,p.4090.

Dufresne de Chassaigne, Jean Eugène (19th century) French surgeon who received his M.D. in Paris in 1834 with the thesis *Considerations sur le traitementde la fistule vesico-vaginale*. In ophthalmology he *Traité du strabisme* Paris 1841.

Dugas, Louis Alexander (1806-1884) American practitioner, born in Washington, Ga., he received his early education from a private tutor. Having studied for a time with a preceptor, Dr. John Dent, of Augusta, Dugas proceeded to the University of Maryland, at which institution he received his medical degree in 1827. For the next four years he studied in Europe. Returning to America, he settled for the practice of his profession in Augusta. In 1832 he was one of the founders of the Medical College of Georgia, in which institution he held the chair of surgery from that date until his death. He was several times president of the Georgia Medical Association and, from 1851 to 1858, was editor of the

Southern Medical and Surgical Journal. Though chiefly a general practitioner, he devoted much attention to the eye. He invented the Dugas operation for corneal staphyloma, much in vogue for many years, though now(1915) a little antiquated. He was the *first* in history to treat purulent ophthalmia by solutions of chlorid of sodium-a method of treatment which, as is very well known, not infrequently succeeds when the silver solutions are useless. American Encyclopedia of Ophthalmology, Vol.6, p.4090.

Dugès, Antoine (1798-1838) French physician, obstetrician and comparative anatomist, of some importance in ophthalmology. He received his medical degree at Paris in 1821. For a time Dugés was prosector of the medical faculty at Paris; then he removed to Montpelier and died in 1838. Aside from works of a general character, he wrote:1.*Recherches Expérimentales Relatives à 1'0pération de la Cataracte*.(Memorial des Hôp. du Midi,1830, pp.255-260.)2.*Hémiopsie Circulaire Guérie par les Narcotiques* (Ephém.Méd.de Montpellier,1828. Vol.11,pp.254-263)American Encyclopedia of Ophthalmology, Vol.6, p.4090.

Duke Carl Theodore of Bavaria. A member of the Royal family of Bavaria, who became a celebrated ophthalmologist. *See* **Karl Theodor**.

Duke-Elder, William (Sir William) Stewart (1898-1978) Scottish ophthalmologist. Duke-Elder was born at Tealing, near Dundee, the son of a Scottish minister. He graduated MA in 1919 with first class honours in natural science and took the BSc with distinction in physiology. He qualified with the MB, ChB in 1923, obtained the FRCS England in 1924 and the MD of St Andrews, in which he gained a Gold Medal, in 1925. In 1925 also, he obtained a PhD from London University. Early in his career at the instigation of Sir John Parsons he devoted time to researching the physiology of the eye at University College London with Professor Starling and in biochemistry with Dr Drummond. He was consecutively Plimmer Research Fellow (1926) writing at that time *The Nature of the Intra-Ocular Fluids*, London 1927; Laking Research Scholar (1926-29), Reittinger Professor (1926), BMA Scholar (1927), BMA Middlemore Prizeman (1929) and Research Associate (1933). At an early stage in his career he built up a large private practice and in 1932 he operated on the then Prime Minister, Ramsey Macdonald, for glaucoma which brought his name before the public. He achieved the distinction of being appointed Surgeon Oculist to King Edward VIII and subsequently to King George VI and then Queen Elizabeth II. He was knighted in 1933 and was appointed KCVO in 1946 and GCVO in 1958. Duke-Elder was best known for his many contributions to medical literature, the first and foremost being his *Textbook of Ophthalmology* in seven volumes (1932-1954). In recognition of this he was awarded the Fothergillian Prize of the Medical Society of London. Realising that some of this work already needed rewriting and updating, he decided to bring out, with the help of prominent colleagues, a much larger work entitled *A System of Ophthalmology* in fifteen volumes (1958-1976). *Recent advances in Ophthalmology* was published in 1927 and *Practice of Refraction* in 1928 (9th edition 1978). He also edited Parson´s Diseases of the Eye (13th, 14th and 15th edition 1959, 1964 and 1970). Duke-Elder authored, also in 1964, *The Eye-Clinical Surgery*. He wrote a large number of papers in different ophthalmic and other scientifical journals and was editor of *British Journal of Ophthalmology* and of *Ophthalmic Literature*. The amalgamation of the three main eye hospitals in London (Moorfields, the Royal Westminster and the Central London) and the formation of the Institute of Ophthalmology, was put into action a year before the inauguration of the NHS largely due to his efforts, encouraged and assisted by Sir John→Parsons and Ida→Mann. As early as 1937 Duke-Elder made plans for an Institute of Ophthalmology, for research done in the British Isles was mainly clinical and there was no centre where properly organised research work was undertaken. This was especially true of ocular pathology and the basic sciences. As Director of Research at the Institute for seventeen years he organised and coordinated the work. He gave much time to arranging

research projects and was instrumental in acquiring financial help from charitable organisations. It was largely for this that he was elected a Fellow of the Royal Society, a distinction which nowadays is rarely conferred upon members of the medical profession who are primarily involved in clinical work. He was the second ophthalmologist to gain this distinction in the present century. The establishment of a special fellowship examination in ophthalmology at the Royal College of Surgeons of England in 1947 was mainly due to his efforts. Previously anyone who wished to sit for it had to pass the examination in general surgery first. Duke-Eider was one of the pioneers who initiated the Diploma of Ophthalmological -Medicine and Surgery (DOMS), later to be changed to the Diploma of Ophthalmology (DO), and was one of the first to be appointed an examiner in these. In 1945, he helped to set up the Faculty of Ophthalmologists at the College. He was its first President, holding office for four years. The purpose of the Faculty was to act as a single authoritative and representative body to represent ophthalmology in matters of public and professional interest and to further the good of the community on ophthalmic matters. In 1950 he chaired the XVI International Congress of Ophthalmology in London. In the second world war he was consultant ophthalmic surgeon to the Army with the rank of Brigadier. His duties involved visits to overseas hospitals and units in many theatres of the war. He was subsequently civilian consultant in ophthalmology to the RAF and also ophthalmic advisor to the Ministries of Health, Supply and Labour and to the London Transport Board. The many medals he was given included the William MacKenzie Medal (Glasgow) in 1929, the Nettleship Medal (Ophthalmological Society of the UK) 1933, the Howe Medal (USA) 1946, the Research Medal of the American Medical Association 1947, the Donders Medal (Holland) 1947, the Doyne Medal (Oxford) 1948, the Gullstrand Medal (Sweden) 1952, the Medal of Strasbourg University 1962 and of Ghent University 1953, the Gonin Medal (International) 1954, the Lister Medal (Royal College of Surgeons of England) 1956, the Bowman Medal (Ophthalmological Society of the UK) 1957, the Ophthalmiatreion Medal (Athens) 1957, the Proctor Medal (USA) 1961 and the Lang Medal (Royal Society of Medicine of London) 1965. He also received the Bronze Star Medal of the USA and the Star of Jordan (1st Class). He was appointed a Knight Commander of the Phoenix of Greece and a Commander of the Orthodox Crusaders of the Order of the Holy Sepulchre (Jerusalem). In 1944 he was admitted to membership of the Most Venerable Order of St John of Jerusalem and in 1954 was appointed Hospitaller of the Order in succession to Lord Webb-Johnson. His services to the Order were immense. In 1882 under the Ottoman Government a British eye hospital and dispensary had been built in Jerusalem near the Jaffa Gate by the Order of St John for the people in Palestine suffering from eye disease. This hospital, was restored and reopened in 1919, its work grew rapidly and it was busy throughout the second world war. Following the break between the Arabs and Israelis, the resulting Armistice line was such that the hospital was now on the Israeli side of the city of Jerusalem and Arab patients could no longer be treated there. To cater for them (since they always constituted the bulk of patients) a temporary hospital was set up in two houses owned by the Order of St John in the centre of the old city, then in Jordan. As Hospitaller and Chairman of the Hospital Committee Duke-Elder worked hard to get a better hospital, and eventually contributions flowed in. A magnificently equipped new St John Ophthalmic Hospital, situated on the Nablus Road in East Jerusalem was opened in October 1960 by Lord Wakehurst, Lord Prior of the Order, on behalf of the rand Prior, the Duke of Gloucester. Before the hospital itself was completed he had organised the building of a set of pathological laboratories where early research into the cause of trachoma was carried out. He worked indefatigably as Hospitaller making all the appointments to the medical and nursing staff, keeping the equipment up to date and seeking financial help and visiting the hospital annually, with his wife. It was largely due to his efforts that the hospital flourished. He edited *Glaucoma-A Symposium*, Oxford, Blackwell 1955. (This book has an interesting photograph showing famous personalities involved in glaucoma research, standing with Duke-Elder). Upon request of the International Council of Ophthalmology he also wrote *A Century of International Ophthalmology*, London 1958. Duke-Elder, who had been promoted to the rank of Knight of the Order of St John, was subsequently promoted Bailiff Grand Cross of the Order and also Councillor of the Hospital Committee. *The Times* 3 April 1978; *Trans. Am. Ophthalmol. Soc.* 1980, 78:3; Lives of Fellows of the R.C.S.E. JPW

Duncan, Robert Hunter (?-1910) A prominent Canadian ophthalmologist, who was born in Barrington, Nova Scotia, and died at Jamaica Hospital, Long Island. His early education was received at Mt. Ellis University, New Brunswick, his medical training at the College of Physicians and Surgeons, Baltimore, Md., at which institution he graduated in 1889. Duncan was next a student for some time at the *Manhattan Eye and Ear Hospital*, New York City. For ten years he was superintendent and resident physician of St. John's Hospital, New Brunswick; surgeon to the Pacific Mail Line, and ophthalmologist to St. Bartholomew's Clinic. American Encyclopedia of Ophthalmology, Vol.6, p. 4091.

Dunnington, John (1894-1977) American ophthalmologist. After receiving a medical degree from the University of Virginia in 1915 at the age of 21, he took his residency training in ophthalmology at Manhattan Eye, Ear and Throat Hospital and then entered the Army Medical Corps. Here be met John M. Wheeler who was to have a vital influence on his career. After World War I, Dunnington entered private practice in New York City. At the same time he worked and taught at New York Eye and Ear Infirmary, Bellevue Hospital, and the University and Bellevue Medical College. When the Institute of Ophthalmology was founded in 1929 under the aegis of Dr. J. Wheeler, Dr. Dunnington accompanied him and thereafter was associated with the Columbia Presbyterian Medical Center and the College of Physicians and Surgeons of Columbia University. In 1940 be became professor of ophthalmology and, on Dr. Wheeler's death in 1942, acting director of the Institute of Ophthalmology. In 1944 he was appointed director, a post he held until 1959. Throughout this period, he developed a department of academic pre-eminence dedicated to the highest caliber of clinical ophthalmology. The numerous Dunnington residents were measured by his own exacting standards, and his astute judgment was demonstrated at his rounds, which became classic. After retiring as director of the Institute in 1959, Dunnington continued to practice ophthalmology until his death. Dunnington's career spanned an epoch during which enormous advances were made in the scientific aspects of ophthalmology. He encouraged basic and clinical research. For much of his career Dr. Dunnington was particularly interested in motility problems, and published numerous articles on the various aspects of strabismus between 1920 and 1950. His thesis for the American Ophthalmological Society was, "Tenotomy of the inferior oblique." Later in his career, his interests shifted to cataract surgery and particularly to surgical wound healing. Dunnington ably served ophthalmology in many areas. He was a frequent examiner of the American Board of Ophthalmology and was chairman from 1950 to 1952. He was a member and past president of the American Ophthalmological Society and the American Academy of Ophthalmology and Otolaryngology, a member of the American Board of Plastic Surgery, American College of Surgeons, and the Canadian Ophthalmological Society. He was a member of the Editorial Board of the Archives of Ophthalmology for many years, a director of Recording for the Blind, ophthalmic advisor for the Knights Templar Eye Foundation, Inc., and honorary vice-president of the National Society for the Prevention of Blindness. He received the Howe Medal in 1934, was an honorary member of the Ophthalmological Society of the United Kingdom, the Ophthalmological Society of Northern Greece, and the Pan American Association of Ophthalmology. His honorary lectures included the Schönberg and Gifford in 1950, the Jackson Memorial, 1951; Bedell, 1953; Bowman, 1955; Proctor, 1956; and de Schweinitz, 1957. AJO 1978,85:267-269

Dunphy, Edwin Blakeslee (1896-1984) American ophthalmologist, Henry Willard Williams Professor Emeritus of Ophthalmology at Harvard Medical School, and distinguished in many fields of his specialty. Dunphy was born in Newark, New Jersey. He received his A.B. from Princeton in 1918, and his M.D. from Harvard in 1922. Dunphy had been a Lieutenant (j.g.) in the United States Navy in World War I; and on the outbreak of World War II, rejoining the Navy, he was assigned to the task of ascertaining the ocular effects of poisonous gases. He was discharged in 1945 with the rank of Captain (MC.), USNR. Among the medical societies to which he belonged were the Massachusetts Medical Society, the American College of Surgeons (board of governors, 1961-1964). the American Medical Association (chairman, Section of ophthalmology, 1951), the New England Ophthalmological Society (president, 1946). the American Academy of Ophthalmology and Otolaryngology (vice-president, 1950; councillor, 1959-1962) and the

American Ophthalmological Society (vice-president, 1959; president, 1960). He was an honorary member of the Royal Society of Medicine (England). Other memberships included the National Research Council (Ophthalmology Committee, 1947-1948), the Ophthalmology Training Grant Committee (1956-1960), the National Society for the Prevention of Blindness board of directors, and the Association for Research in Ophthalmology. A diplomate of the American Board of Ophthalmology, he served as its secretary (1948-1955). He was a member of the Editorial Board of the Journal of Ophthalmology (1944-1965). He also served as consultant to nine hospitals. Dunphy was awarded the Howe Medal of the University of Buffalo (1957), was given the Alpha Omega Alpha Honors Award the following year, and the American Medical Association Prize in Ophthalmology in 1962. In the same year the Edwin Blakeslee Dunphy Lectureship was established and endowed by the Massachusetts Eye and Ear Infirmary. He was awarded the Howe Medal of the American Ophthalmological Society in 1965. Among the named lectures he delivered were the May (1956), the Gifford (1957) and the Edward Jackson (1963). Dunphy's accomplishments were notable, and many of his contributions to ophthalmology were of vital importance, but a mere recital gives little indication of his unique individuality. AJO 1984,98:525

Dupuytren, Guillaume (1777-1835) French surgeon born at Haute-Vienne near Limoges, Dupuytren moved at the age of twelve to Paris and shortly afterwards began the study of anatomy and surgery. At the age of sixteen (seventeen?) he had been appointed prosector and became a successful teacher. In 1801, still hardly more than of age, he began to lecture on pathological anatomy, and two years later wrote "*Propositions sur quelques Points d'Anatomie,de Physiologie, et d'Anatomie Pathologique* "1803). From this time forward, his life consisted of an even more rapid succession of scientific achievements.Among his appointments were body-surgeon to Louis XVIII and Charles X, and General Inspector of the University. He was made a baron. In the fall of 1833 he suffered a slight attack of apoplexy, and, in the following spring, made a journey to Italy in search of better health, which, he failed to find. Feb.8,1835, he died. The strengths of Dupuytren are still a great tradition. As an observer he possessed almost miraculous ability. Keen-sighted, strong of inference, he got at the heart of an obscure trouble, as it seemed to those who stood about him, almost instantaneously. His operative dexterity seemed almost equally marvelous. Still more wonderful, this versatile Frenchman enjoyed an even more exalted reputation as a lecturer. Never at a loss for a word, speaking in brief pictorial sentences, which, almost without exception, were strikingly germane to the subject, he attracted instantly and held throughout the time assigned to him the excited attention of even the dullest student. He is said to have preferred, among his patients, the poor and humble to the well-bred and the rich, and often to have operated on dozens of the extremely indigent while multi-millionaires were cooling their heels in his well-nigh forgotten waiting-room. In his work about the hospital he wore a white gown. In the street and at home, he was very simply dressed. He was always rough in manner, sometimes actually shouting, but kind of heart and truly in love with his work. As to his oculistic ability, opinions differ much. The most adverse opinion is that of Guépin, of Nantes, who said of him., "I have, followed closely the great Dictator of the Hôtel-Dieu, M. Dupuytren, and I am very far indeed from accepting the usual estimate of the man. From 1824-1829 I never saw him form one single artificial pupil. I have seen him fail in two-thirds of his cataract operations. I heard, as the patients answered him, that they saw, under the influence of the terror which he instilled into them; while, in reality, they were not able to count my fingers. The whole world knows his method of operating for lachrymal fistula, brilliant for the moment, but reprehensible for its ultimate result." Dupuytren's procedure for the "cure" of fistula lachrymalis, was, perhaps his greatest contribution to ophthalmology-*great*, that is, in a *negative* sense. It was, of course, inevitable that this barbarous proceeding should sooner or later be tried, and sufficiently advertised(as a failure) to be more or less permanently condemned. It consisted of an incision in the anterior wall of the lachrymal sac, and then of the introduction, via the incision and the nose, of a golden canula. The method was by no means new with Dupuytren, though it was generally supposed to be so. It had been anticipated, both by Wathen and Foubert. These surgeons, however, had not been able to secure for their discovery a very extensive attention; hence, as the "Dupuytren procedure" was often a cause of caries, palatal

perforation, and even death, it was well that the famous operator re-discovered it, so that, by bringing it to wide-spread notice, it could be condemned forever. Not quite, perhaps, forever. The procedure is still(1915) "discovered" from time to time and announced with great éclat in ophthalmologic journals. Dupuytren wrote little. The greater portion of his accomplishments have come down to our time in the books and articles of his numerous and appreciative students. American Encyclopedia of Ophthalmology, Vol.6, p.4092-4095.

Dutrie, Ogilvie Maxwell (1899-1977) British ophthalmologist. Ogilvie Duthie was born in Manchester. After education at Manchester Grammar School he enlisted in the Navy in 1916 as a Sub-Lieutenant. Entering Manchester University after the war he qualified in 1921 and became house surgeon to Professor John Morley at the Manchester Royal Infirmary. He was then appointed as a resident at the Manchester Royal Eye Hospital which he served for almost forty years as house surgeon, resident surgical officer, assistant surgeon and consultant. He also held appointments at the Christie Hospital and Salford Royal. After the second world war he secured the FRCS and was instrumental in forming the Manchester University Department of Ophthalmology against stiff opposition. He was later appointed reader in ophthalmology at the University and developed a very busy department with 65 beds, ably assisted by Alan Stanworth as his chief assistant. He was one of the first surgeons in England to adopt the technique of intracapsular extraction of cataract. Though a busy clinician his keen and alert mind made him an invaluable member of many committees and he was on the governing body of the Manchester Royal Infirmary. An original council member of the Faculty of Ophthalmology at Manchester, he was President for three years in the nineteen-fifties. He was also a former Vice-President of the North of England Ophthalmological Society. Outside his own clinical work his chief love was in the growth and progress of the Oxford Ophthalmological Congress, to the council of which he was elected in 1946. He gave invaluable help in the administration, became deputy master in 1957 and Master of the Congress in 1959 for the Jubilee meeting at Balliol College and the University School of Physiology. His interest in the Congress continued throughout his life and he presided over a past masters dinner only four months before his death. Duthie contributed some forty papers to the literature, notably on cataract and glaucoma. Brit. med. J. 1978,1:41-42. LFRCSE

Dutrieux, Pierre-Joseph (1848-1899) Belgian ophthalmologist, who performed the most of his professional duties in Africa. Born in Tournai, Belgium, he received his medical degree at Ghent and proceeded at once to Egypt. He settled in Cairo, and was soon appointed Professor to the local School of Medicine and body-physician to the Vice-roy of Egypt. Returning to Belgium, he was soon appointed by the King to the leadership of an expedition to the Congo. Ruined in health, he returned from Africa and practiced as an ophthalmologist in Paris, dying, however, Feb. 5, 1899, at the young age of 41. His chief ophthalmic compositions are: "*Considérations Générales sur l'ophtalmie Communement Appellée Ophtalmie d'Egypte, Suivie d'Une Note sur les 0pérations Pratiquées a l'Ecole Khédiviale des Aveugles au Caire, avec une préface en Forme de Lettre à Riaz-Pascha*" (Cairo, 1878); "*Contribution A l'Étude des Maladies et de I'Acclimatement des Européens dans I'Afrique Intertropicale*"(Ghent, 1880). American Encyclopedia of Ophthalmology, Vol.6, p.4096.

Duval Le Roy, Nicolas Claude (1730-1810) French physicist and astronomer, was born in Bayeux and spent most of his life in Brest, where he taught mathematics at the Académie Royale de la Marine. In addition to a number of original works on mathematics, physics, astronomy, and navigation, Duval produced in 1767 a translation of Robert Smith's Compleat System of Opticks (1738) : *Supplément a l'optique de Smith, contenant une théorie générale des instrumens de dioptrique*. Brest & Paris 1783.

Duval, Mathias Marie (1844-1907) French histologist and physiologist, son of the botanist Joseph Duval. He was born in Grasse,(South France) and studied medicine in Strasbourg receiving his MD in 1869. From 1873 Duval lived in Paris, where he taught anatomy for artists at the Ecole Nationale Superieure des Beaux-Arts from 1873 to 1899. He published more than 250 papers and dictionary articles. Of ophthalmic interest is his *Structure et usages de la rétine* Paris 1873. He also wrote *Cours de Physiologie* 1872 (and

further 7 editions until 1897, translated in English[Boston 1875],Spanish[Madrid 1876 & 1884],Greek[Athens 1887] and Russian[St.Petersburg 1893]), with L. Lereboullet: *Manuel du Microscope dans ses applications au diagnostic et à la clinique* 1873. In 1878, he wrote a biography a the famous French physiologist Claude Bernard.

Duyse, Daniel van (1852-1924) Belgian ophthalmologist. Van Duyse was born in Ghent and died in Brussels. He was the son of the poet Prudens Van Duyse, a protagonist of the flemish movement, and had three well known brothers: the musicologist Florimond, the writer Gustave and the archeologist Herman. Daniel obtained the M.D. degree at the Ghent University in 1876. He specialized in ophthalmology from 1877 to 1881 in Paris wunder →Panas, de →Wecker, →Galezowski, →Abadie and →Landolt, in Vienna under von →Arlt, →Fuchs, von →Jaeger, →Stellwag von Carion and →Mauthner, in London under →Critchett, →Bader and →Nettelship, in Berlin under J. →Hirschberg and in Heidelberg under 0.→Becker. Thereafter he specialised in 1883 in pathological anatomy in Strasburg under von Recklinghausen. He was appointed by the Ghent University as professor of pathological anatomy in 1891 and as professor of ophthalmology in 1899. He left this chair in 1920 in favour of his son Marnix. He was the founder of ocular teratology and wrote many works on *palpebral malformations* (with emphasis on *amniotic pressure*), *dermoid cysts*, *optic nerve malformations*, *aniridia*, *persistance of the pupillary membrane*, *macular coloboma*, *anophthalmia*, *cryptophthalmia*, *cyclopia*, *colobomatous cysts* etc. He was also a specialist in histopathology of the ocular and orbital tumours, particularly of the angiomas. Moreover he wrote many papers on clinical ophthalmology, e.g. on the use of pilocarpin, radiotherapy, traumatic enophthalmia, chromatopsia, and antiglaucomatous surgery. He was interested in the history of medicine and wrote papers on Michel Brisseau, the wandering oculists in the 18th century, ocular prothesis in the Antiquity etc. He wrote *Coup d´Oeil sur l´Histoire de l´Ophtalmologie en Belgique au XIXème siècle* Ghent 1912. He was the author of the chapters on embryology and teratology of the eye in the first "*Encyclopédie Française d'Ophthalmologie*" published by Lagrange and Valude and separately republished as a monograph: *Elements d´Embryologie et de Tératologie de l´Oeil*, Paris 1904. He was a founder member of the Belgian Ophthalmological Society and has been its secretary from its foundation to his death. He was member of the (French) Belgian Academy of Medicine. (Verriest)JPW

A drawing by Daniel van Duyse about ocular teratology with lateral proboscis.

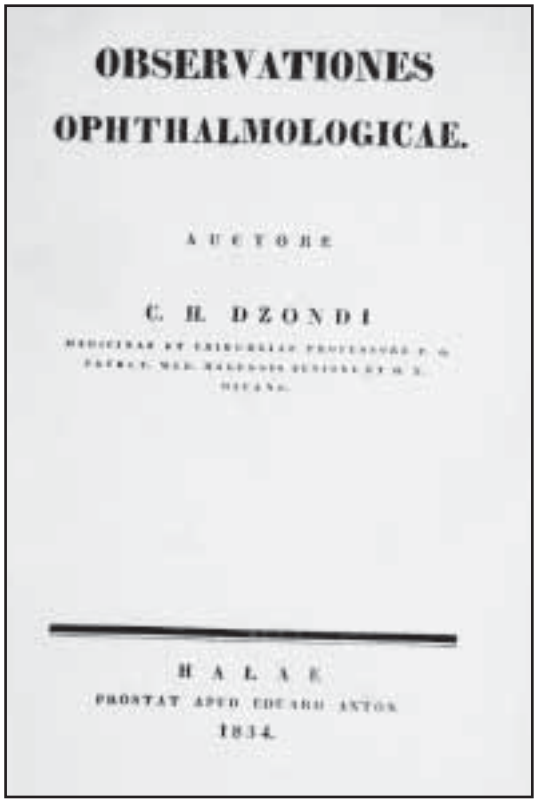
Duyse, Marnix van (properly Guillaume) (1885-1940) Belgian ophthalmologist, son of Daniel Van Duyse. He was born in Ghent and died in the same city. He obtained his M.D. degree at the Ghent University in 1910 and obtained also a degree as hygienist. Following the advices of his father he specialized abroad not only in ophthalmology (e.g. with Ernst→Fuchs in Wien) but also in basic sciences (pathological anatomy with Aschof, ocular bacteriology with von →Szily and ocular embryology with Schredde, all in Freiburg, and hematology with Pappenheim in Berlin). At his return in 1912 he became assistant in the department of pathology and obtained the special doctorate in ophthalmology in 1920. He succeeded his father as professor of ophthalmology in the same year 1920. As pupil and follower of his father he wrote important papers on *ocular teratology* (*palperal colobomas*, *epibulbar dermoids*, *uveal coloboma*, *aniridia*, *microphthalmia*, *cyclopid*, *arhinencephaly* etc.) and on *ocular histopathology* (tumours of the Meibomian and lacrymal glands, non pigmented cystic naevi lymphocytemic tumours of the corneal epithelium). As hygienist he wrote on *prevention of myopia*, *trachoma and measles*, on *medical school inspection* etc. As clinician he wrote a.o. on *ocular complications of diabetes*, *chiasmatic syndrome*, *glaucoma operations*, *nystagmus and ocular injuries*. With Julien Van→Canneyt he did experimental work on ocular and orbital syphilis in the rabbit. However, his principal achievements were a book on *pathological*

anatomy of congenital ocular malformations (1919), a report on *ocular heredity* for the French Ophthalmological Society (1931) and a *classification of the causes of blindness* for the International Society for Prevention of Blindness (1935). He was the secretary of the Belgian Society of Ophthalmology from 1924 to 1940. He was member of the (French) Belgian Academy of Medicine. Thanks to a gift of Camille Delecoeuillerie (1865-1947), pupil of Daniel Van Duyse and friend of Marnix Van Duyse, the Belgian Ophthalmological Society realized a medal joining the profiles of father and son. During the second World War the vacant chair of ophthalmology was occupied by Reimond→Speleers. (Verriest) BJO 24,264,1940

Dyer, Ezra (1836-1887) American ophthalmologist and one of the founders of the American Ophthalmological Society. Born in Boston he received the degree of Bachelor of Arts from Harvard University in 1857. In 1859 he received his medical degree from the same institution. Proceeding at once to Europe, he studied at Dublin, Bonn, Vienna, and Berlin. While in Vienna he came within the influence of →Arlt, and so was induced to turn his attention to ophthalmology. In Berlin he studied with von →Graefe, to whom he bore a letter of introduction from Arlt. Returning to America in November, 1861, he settled in Philadelphia,and soon had an excellent practice. In the following year, at the invitation of Surgeon-General Hammond, he took in charge ″all the eye and ear cases then in the Philadelphia Army Hospitals.″ While engaged in this work, he personally treated hundreds of cases daily under the most adverse circumstances. Concerning these matters, the following passage occurs in one of his letters to his wife: ″ To-day I had over ninety to dress myself. On my way home from the hospital I saw, just above the bridge, a whole train of wounded rebels, and they wanted attention. I hitched Prince and 'went in.' The day was hot, and, though I took off coat and waistcoat, I was drenched. Deliver me from such a scene again. They were brought in cars, lying on the floors, which were swimming and slippery from filth. We got water and sponges, and some good women brought old linen and made lint and bandages, while I climbed into the cars and worked. Many of the shelled wounds had mortified and were full of maggots. The poor fellows did not complain, but were in a horrid state, Officers and men were all together, and as soon as one was fixed up a dozen said: 'Doctor, can't you look at me now? I don't know how long I have been here.″ Dyer was always active in medical society work. In 1865 he read before the American Ophthalmological Society a paper entitled, ″Asthenopia not Connected with Hypermetropia,″ in which he proposed ″for cases of asthenopia not depending on any error of refraction or muscular insufficiency, a system of ocular gymnastics.″ This excellent means of treatment has ever since been known as ″Dyerizing″. In 1866 he published a notable paper on ″Fracture of the Lens from Death by Hanging.″ For a time he was ophthalmologist to the Wills Eye Hospital, and also held a number of other appointments, but, in 1873, owing to the chronic illness of a member of his family, he removed to Pittsburgh, where, it was thought, the change of scene and climate might prove of service to the sick one. In Pittsburgh, too, he was soon very busy, and was promptly connected with the Dispensary and a number of hospitals. It was in Pittsburgh that he wrote the paper entitled ″ The Treatment of Asthenopia by Systematic Exercises.″ This article he read in 1876 before the International Ophthalmologic Congress, which met in New York. One day in the autumn of 1879, leaping suddenly to the slippery deck of a ferry boat that was just on the point of departing from the dock, he fell and ruptured the ligaments of the left knee. After this accident he was always lame, and, now and then, the knee would give way under him. This distressing accident led to another still more serious. In the spring of 1880, while stepping from a horse car, the injured knee gave way, and he fell, breaking the right thigh and dislocating the right hip. After remaining in bed for six months, he was once more able to go about, but never again did he fully recuperate. Two years later, a spinal affection supervening, he sought for a milder climate in Newport, RI. Here, in spite of his serious condition, he invented the perimeter, still known by his name. During the earlier portion of his stay at Newport, he seemed to be slightly improved; but, beginning again to decline, he was taken by his family to Florida. Here, too, however, he failed to receive the expected benefit; so, on Feb. 5, 1887, he was taken on board a ship bound for New York, and, four days later, while still on board the vessel, he died. American Encyclopedia of Ophthalmology, Vol.6, p.4096-4098.

Dyes, August (1813-1899) German physician of Hannover, who practiced in his native city following study in Göttingen and Berlin. He wrote: *Aerztlich begründete Schweinefütterungs-Methode* Verden 1864; Aerztliche Beobachtungen, Forschungen und Heilmethoden Hildesheim 1877; *Die rationelle Heilung der Cholera* Hildesheim 1867 and *Verhütung von Augentrübung und Blindheit; ein Beitrag zur Ophthalmotherapie*. Berlin & Neuwied 1885.

Dzondi, Karl (Carl) Heinrich, (1770-1835) German surgeon. He studied theology and philosophy at Wittenberg before turning to medicine; he received his M.D. at Würzburg at age thirty-six (1806). In 1811 he became professor of surgery and director of the surgical clinic at Halle. Dzondi was a skilled ophthalmic surgeon, experimenting with new methods of blepharoplasty. He wrote:*Anhang zur Geschichte des Institutes für Chirurgie und Augenheilkunde*, Halle 1818; *Lehrbuch der Chirurgie*"(Halle, 1821); "*Die Dampfmaschinen, ein Neues Heilmittel*" Leipzig, 1821; *Die Funktionen des weichen Gaumens beim athmen,sprechen, singen*.. Halle 1831; *Observationes Ophthalmologicae* Halle 1834; *Die Augenheilkunde für Jedermann, welche lehrt die Gesundheit der Augen zu erhalten und die Krankheiten derselben bald und sicher zu heilen*. Halle 1835, *Was ist Rheumatismus und Gicht?* Halle 1829, *Was ist häutige Bräune?* Halle 1827. American Encyclopedia of Ophthalmology, Vol.6, p.4112; Albert.JPW


OBSERVATIONES
OPHTHALMOLOGICAE.
AUCTORE
C. H. DZONDI
HALAE
1834.

Karl Heinrich Dzondi

E

Eales, Henry (1852-1913) British ophthalmologist of Birmingham, England, born at Newton Abbott the son of the Vicar of Yealmpton, Devonshire. His medical education was received at University College, London, where he was awarded two silver medals in anatomy and one in materia medica. In 1873 he was made a member of the Royal College of Surgeons. He served for a time as House Surgeon to the Birmingham and Midland Eye Hospital, later becoming Medical Tutor and Demonstrator of Anatomy at Queen's College,Birmingham. In 1878 he was made one of the Honorary Surgeons to the Eye Hospital. In 1911 he was President of the Ophthalmic Section of the British Medical Association. He was,at the time of his death, Medical Referee for Ophthalmic Cases under the Workmen's Compensation Act.He did not write much, but all that he wrote was clear, sound,and practical. His most important composition was entitled "*State of the Retina in 100 Cases of Granular Kidney*." He also wrote on strabismus, retinal hemorrhage, and glaucoma. He was a kind and courteous man,loved by those who knew him intimately, popular with all. He was an original member of the Ophthalmological Society of the United Kingdom and a member of the Council from 1890 to 1893. He was honorary treasurer of the Midland Ophthalmological Society. He delivered 1897 the →Middlemoore Lecture. The Ophthalmoscope, 1913, p.196-197. American Encyclopedia of Ophthalmology, Vol.6, p.4113-4114.

Earle, James (Sir) (1755-1817) British surgeon of London. He received his medical training at St. Bartholomew's Hospital, serving on the surgical staff from 1776 to 1815. Famed for his operating skill, especially in lithotomy, he was surgeon extraordinary to George Ill, who knighted him in 1802. Earle devised a new procedure for cataract

extraction. *An account of a new mode of operation for the removal of the opacity in the eye, called cataract*. London 1801.

Eason, Herbert (Sir Herbert) Lightfoot (1874-1949) British ophthalmologist, born in London, the third son of Edward Henry Physick Eason, auctioneer and surveyor of Bishopsgate, and his wife Mary Ann Moore. He nearly died of double pneumonia at the age of eleven, and was educated at a private school in Dulwich, at University College, London, and at Guy's Hospital, and retained a close connexion with the hospital and with London University to the end of his busy life. He qualified in 1898 and proceeded both to the M.D. and the M.S. He was house physician at Guy's to Sir James Goodhart, M.D., F.R.C.P., but was more markedly influenced by Sir Cooper Perry, M.D., F.R.C.P. towards pursuing his bent for administration. By Perry's advice he specialized in ophthalmology, to leave himself time for administrative, work, which a less restricted medical field would not. He was appointed assistant ophthalmic surgeon at Guy's in 1905, and ultimately became senior ophthalmic surgeon. During the war of 1914-18 Eason was a consulting ophthalmic surgeon to the British Army in Egypt and the Near East, with the rank of lieutenant-colonel, R.A.M.C. He was created C.M.G. in 1917 and C.R. in 1919 for his services. He formed a personal friendship with General (afterwards Field-Marshal Lord) Allertby, who, struck him as the greatest man he met in his long life of many distinguished contacts. While practising his specialty with distinction, Eason's great contribution to medicine lay in the full deployment of his rare administrative talent. In honour of this work he was elected a Fellow of the Royal College of Surgeons in 1936, as a member of twenty years' standing. At Guy's he was Warden of the College (1902) and Dean of the medical and dental school 1903-12, and in 1920 he succeeded Perry, who had held the post for 28 years, as Superintendent of the Hospital. Eason thoroughly enjoyed the appointment, which he sustained with dignified ability for nearly 20 years. In the University of London he was an active member of the Faculty of Medicine, represented the Faculty on the Senate from 1911, and the Senate on the Court 1931-37. He was elected Vice-Chancellor in 1935, and after the tragic death of Edwin Deller, who, was accidentally killed while inspecting the building of the new university house in 1937, Eason assumed the office of Principal, making with skill the difficult step from the chief administrative to the chief executive office of the university. As a leading member of the Board of Education's Departmental Committee on the University of London 1924-26, he had done much to shape the policy which he administered. Eason represented the University on the General Medical Council from 1924 and, after serving as a trustee of the English branch of the Council and joint treasurer with Sir George Newman, he was elected president from 1 December 1939, in succession to Sir Norman Walker, president 1931-39. Sir Robert Bolam had been chairman of business since 1932, but died some months before Walker's retirement, leaving the succession open to the highly eligible Eason. Eason was a proved committee man and an experienced administrator with a sound knowledge of the law. He had been elected as Honorary Master of the Bench of the Inner Temple in 1938. He had also personal acquaintance with clinical practice. After assuming the presidential office Eason gave up all part in the work of the British Medical Association, to avoid any colour of professional partiality. He had served on the Association's ophthalmic committee, which helped to sponsor the National Eye Service. Eason was intensely proud of the dignity and weight of his position, and valued the contacts which it brought him on the intellectual rather than the social or administrative level with the leaders of medicine throughout the British Isles. In his judicial capacity his bearing towards offenders was stern, but he avoided all moral exhortation. At the preliminary private deliberations of the Council his voice was given for leniency. Eason's contribution to the Council's educational work was nearer his heart than his disciplinary duties. He held that the Council must privately establish, and only then publish, standards for medical training, which the various teaching and qualifying bodies would be expected to attain, while they ought to be allowed complete freedom in their methods, so long as they reached the Council's required standard. To this end he was largely responsible for the Council's Rules for Diplomas in Public Health 1945. He toured the medical schools of North America in 1946 with a party of his fellow councillors, under grant from the Rockefeller Foundation, after which the Council issued their Recommendations as to the medical curriculum 1947. He next oversaw the drafting of a Medical Bill, intended to reform the constitution and finance of the Council itself. Eason was a member of the Ministry of Health's Postgraduate medical

education committee 1925-30, which led to the establishment of the (British) Postgraduate Medical School at Hammersmith Hospital, and he became a governor of the school. He was co-opted a member of the Hospitals and Medical services committee of the London County Council, was a trustee of the Beit Memorial Fellowships for medical research, and represented the Ministry of Health on the General Nursing Council. He was a member of the general council of King Edward's Hospital Fund for London, and served ex officio on the Central Health Services Council of the National Health Service 1948-49. He was knighted in 1943. In earlier years Eason had been an active member of the Ophthalmological Society, and contributed to its *Transactions* and to *Guy's Hospital Reports*. He wrote the ophthalmic articles for French's Index of differential diagnosis. Eason received following titles and honours: Knight bachelor 1943; C.B. 1919; C.M.G. 1917; M.R.C.S. 10 November 1898; F.R.C.S. by election 14 May 1936; M.D. London 1901; M.S. 1902; L.R.C.P. 1898; Hon., M.D. Dublin 1946; LP. Co. London. Med Press 1949,222:449; Brit med J. 191939,2:1096, 1942,1:96 and 1949,2:117-118; Lancet 1949,2:920-921;BJO 1950,34:61-63

Yukichi Ebara

Ebara, Yukichi (1910-1945) Japanese Ophthalmologist. He graduated from the Faculty of medicine of Osaka University in 1935, and received his Ophthalmology training under Prof. B.→Nakamura, and submitted a dissertation "*An analysis of the mechanism of dark adaptation*" and was granted Doctor of Medical Science from Osaka University in 1940. He was appointed the Professor and Chairman of the Department of Ophthalmology at Osaka Medical College in 1941. He died on the day the Second World War came to an end. (SM)

Ebbinghaus, Hermann 1850-1909) German experimental psychologist, author of a theory of color vision, was a professor of psychology at Berlin (1886-1894), Breslau (1894-1905), and Halle (1905-1909). His most important research was on memory and learning; his classic work on these subjects is Über das Gedtichtnis (1885).His other chief interest was in the physiology of the sense organs; he and Arthur König founded the Zeitschrift ffir Psychologie und Physiologie der Sinnesorgane in 1891. *Theorie des Farbensehens*. Hamburg 1893.

Ebers, Georg Moritz (1837-1898) German Egyptologist, born in Berlin. He discovered and translated numerous papyri, of which the most important, from, an ophthalmic stand point at least, is the medical document known as the "*Papyrus Ebers.*" This writing, discovered at Thebes in 1872, forms our chief,indeed almost our only, source of knowledge concerning ancient Egyptian ophthalmology. Prior to 1872 our scanty fountains of information were Greek and Roman authors-e. g., Herodotus, Celsus, Plutarch, Galen. The papyrus Ebers consists of 110 pages, describing all the diseases (and the remedies therefor) that were known to the Egyptians at the time when the document was written about BC.1500. Eight pages are devoted exclusively to diseases of the eye. The ophthalmic portion of the work Ebers translated into German and published at Leipzig with the title, "*Papyrus Ebers. Die Maase und das Kapitel über die Augenkrankheiten.*"(2vols.) Leipzig 1889. Many ocular diseases are named in this early work on ophthalmology, but none are described in detail. Numerous prescriptions are given. Ophthalmology is often declared to have had its origin in Egypt, and the ophthalmic portion of the papyrus Ebers is frequently declared to be the oldest document in existence in which, are mentioned the diseases of the eye. Both these statements, however, are erroneous. The papyrus Ebers, as stated already, dates back to only B. C. 1500; the Code of Hamurabi, however, which, though a legal composition,contains a number of important references to ophthalmology and ophthalmologists, as well as a number of laws concerning both these heads, extends across "the dark backward and abysm of time" to the year two thousand two hundred and fifty years before Christ-a hoary document before the *papyrus Ebers* was even dreamed of. Ebers was the author of a number of well-known historical novels,of which the most important are: *Uarda; The Bride of the Nile*; *The Emperor*; *A Thorny Path*. American Encyclopedia of Ophthalmology, Vol.6, p.4119.

Eble, Burkard (1799-1839) Austrian military physician, is primarily remembered as the editor of a continuation of Sprengel's great history of medicine (1837). His other works include treatises on eye diseases. *Ueber den Bau und die Krankheiten der Bindehaut des Auges* Wien 1828. *De la structure et des maladies de la conjonctive* traduit de l'Allemand,

avec des notes, par Ed. De Losen de Seltenhoff. Bruxelles 1836. *Die sogenannte contagiöse oder Ägyptische Augenentzündung*. Stuttgart 1839. *Considérations sur la blépharophthalmie catarrhale des armées.. chez les troupes Belges* traduit de l'allemand sur le manuscrit de l'auteur, avec des notes, par J.A. von Kriss et F.→Cunier. Bruxelles 1836

Edelhauser, Henry F. (*1937) American ocular physiologist and toxicologist. Born in Dover, NJ. Received his B.A. in 1962 from Patterson State College, Wayne, NJ. Obtained his M.S. in 1964 and Ph.D. in 1966 in Physiology from Michigan State University. He studied under P.O. Fromm, a comparative physiologist. After graduate school, Edelhauser became a postdoctoral fellow (1966-1967) in the Department of Physiology at Marquette University School of Medicine, Milwaukee, WI. He then joined the Faculty at Marquette University, now the Medical College of Winsconsin, in 1967 as an assistant Professor of Physiology and Ophthalmology, Associate Professor in 1971 and Professor in 1975. In 1989, he came to Emory University,?Atlanta, GA as the Sylvia M. and Frank W. Ferst Professor of Ophthalmology?and Director of Ophthalmic Research. He has served as a scientific consultant to Alcon Laboratories, Fort Worth, Texas; S.C. Johnson & Son, Racine, WI; American Cyanamid, Clifton, NJ; and KeraVision, Fremont, CA. Edelhauser has been on the NIH Study Session VIS-A (1977-1981) and Chairman (1980-1981). He was the Cornea Trustee for the Association for Research in Vision and Ophthalmology (ARVO) (1986-1991) and President of ARVO (1990-1991). He has served on the Editorial Board of IOVS since 1982 - present, Current Eye Research since 1980 - present and CLAO since 1990 -present. Edelhauser has served as a Director of Scientific Review for Fight-For-Sight from 1988 - present, and a member of the Alcon Research Institute (1983-1996). He has served on the Board of Directors of the Castroviejo Society (1994-1997). He received the American Academy of Ophthalmology Honor Award (1988) and has been awarded the Senior Scientific Award from Research to Prevent Blindness (1987&1993) and the Alcon Research Institute Award in 1999. Inducted into the Alcon Laboratories, Inc., Hall of fame in 1992 and in 1999 he delivered the Castroviejo Lecture entitled "*The Resiliency of the Corneal Endothelium to Refractive and Intraocular Surgery*," at the Annual Meeting of the American Academy of Ophthalmology. Edelhauser is noted for his research with practical laboratory studies that have bridged the gap between the laboratory and the clinic. He has mentored 14 MS and PhD students and 26 postdoctoral fellows, published over 200 peer-reviewed scientific papers and numerous book chapters. Three examples of his publications are: 1. Geroski DH, Edelhauser HF. *Quantitation of Na/K ATPase pump sites in the rabbit corneal endothelium*. Invest Ophthalmol Vis Sci 35:1056-1060, 1984; 2. Edelhauser HF, Geroski DH, Woods WD, Holley GP, Schwartzman M. *Swelling in the isolated perfused cornea induced by 12(R)HETE*. Invest Ophthalmol Vis Sci 34:2953-1961, 1993; 3. Anderson NJ, Woods WD, Rudnick DE, Kim T, Edelhauser HF. *Intracameral anesthesia: In vitro iris and corneal uptake and release of 1% lidocaine HCl*. Arch Ophthalmol 117:275-232, 1999. (Henry F. Edelhauser, Ph.D. Director of Ophthalmic Research Emory Eye Center, Suite B2600 1365B Clifton Road, NE Atlanta, GA 30322. U.S.A. phone: +1-404-778-5853 ; fax: +1-04-778-4143 ; e-mail: ophthfe@emory.edu (SM)

Edmondston, Arthur (1776?-1841) of Lerwick, Shetland Islands, learned medicine from his father, the sole physician in the Islands. He served for a time as an army surgeon in Egypt, then returned to Lerwick, where he succeeded to his father's practice. Edmondston had a particular interest in diseases of the eye and wrote two treatises on ophthalmia. *A treatise on the varieties and consequences of ophthalmia* Edinburgh 1806.

Edmunds, Walter (1851-1930) British ophthalmologist, who joined the Ophthalmological Society of the United Kingdom at its foundation, and who was an active member during the first 10 or 12 years of its existence. His interest in ophthalmology was almost entirely on the pathological side and nearly all his contributions to the Transactions of the Society dealing with post-mortem findings in diseases in which involvement of the optic nerves and retinae occurred. He was associated in some of this work with W.A.→Brailey (at that time Curator of the Museum of the Royal London Ophthalmic Hospital) and →Nettleship. His last contribution to the Transactions was "*Experimental Exophthalmos and Enopthalmos*." This was a record of work carried on through a series of years at the

Brown Institute, where he devoted a great deal of time to experimental investigation. His most important work was on the thyroid and parathyroid glands, and in 1901 he gave the Erasmus Wilson Lectures at the Royal College of Surgeons on the " *Pathology and Diseases of the Thyroid Gland*." He was one of the first to attempt photography, of the *fundus oculi,* but the results were not sufficiently satisfactory to induce him to pursue the attempt. BJO 1930,14:650

Edridge-Green, Frederick William (1863-1953) British ophthalmologist. Born in London, he studied medicine at St. Bartholomew's Hospital and the University of Durham (M.D., 1889), and became medical officer first at the Northumberland House Asylum and subsequently at Hendon Grove Asylum.His name is well known to ophthalmologists throughout the world on account of his writings on colour vision *Colour-Blindness and Colour-Perception* London: Kegan Paul, 1891 (2nd edition 1909), *Memory: Its Logical Relations and Cultivation* London 1888, *Memory and its Cultivation* 1897, The Hunterian Lecture *on colour vision and colour blindness.* (in The Lancet 1911) *The Physiology of Vision London with Special Reference to Colour Blindness* London 1920, *Colour vision and colour blindness* in: *Encyclopedia Britannica* 1922, *Science and Pseudo-science* Bale 1933 (this book is partly autobiographic) and his invention of the colour perception spectrometer and the colour lantern, which are used to-day as tests for colour vision by many official bodies throughout the world. Edridge-Green was a great controversialist with very decided opinions of his own, and although some of the conclusions he put forward seemed to lack a basis of observed facts, his name will be remembered as the first person to rationalize testing for colour blindness and to put it on a practical and generally acceptable basis. Edridge-Green bequeathed £ 3000 to found an annual lecture at the college on vision or colour vision. The first lecturer was appointed in 1955. BJO 1953,37:384; The Times 18 April 1953, Lancet 1953,1:856, BMJ 1953,1:998. JPW

Eeckman, Jean-Charles-Emile-Marie (1864-1944) Belgian ophthalmologist. Eeckman was born in Tournai and studied medicine in Leuven. He obtained the M.D. degree in 1889 and specialized in ophthalmology with Tack in the Provincial Ophthalmic Institute in Brussels from 1889 to 1893. He lived in the United States from 1893 to 1899 and was during that period professor at the National Medical College in Chicago. After his return is Belgium he became departmental head at the Ixelles public hospital and physician of the Ixelles Service for Hygiene. (Verriest)

Eguchi, Goro (1933-) Japanese Cell and Molecular Biologist working on the vertebrate pigmented epithelia and crystalline lens, President of Kumamoto University, Professor Emeritus National Institute of Basic Biology (NIBB) and Professor Emeritus of Graduate University for Advanced Studies, Hayama. He graduated from the Faculty of Science of Nagoya University in 1956, and extended his studies at the Department of Biology and received his Doctor of Science in 1964 (thesis: *Electron microscopic studies on lens regeneration I: Mechanism of depigmentation of the iris*, Embryologia 8:45, 1963; id II: *Formation and growth of lens vesicle and differentiation of lens fibers*. ibid. 8: 247, 1964). He served in many important positions, as the Professor at the Institute of Molecular Biology Nagoya University (1976-1984), then the Professor at the NIBB, Okazaki National Research Institutes (1983-1996), Chairman of the Department of the Developmental Biology, NIBB (1983-1990), Chairman of the Department of Regulation Biology, NIBB (1988-1989), Chairman of the Department of Cell Biology, NIBB (1990-1993), Professor of the Graduate University for Advanced Studies, Hayama (1989-1996), Director of the Laboratory for Gene Expression and Regulation, NIBB (1993-1995), Chairman of the Department of Cell Biology, NIBB(1995-1996), Councillor, Graduate University for Advanced Studies, Hayama (1995-1996), Chairman , School of Biological Science, Graduate University for Advanced Studies, Hayama (April to October, 1996) and he was elected to the President of Kumamoto University in 1996. In professional Societies, the positions he served are President of the Japanese Society of Developmental Biologists (1991-1994), Councillor of the Japanese Society of Cell Biology (1983-present), and Councillor of the Japanese Society of Zoology, (1983-1986,1988-1991, 1993-1996). He is a founding member of the Japanese Chapter of the International Society for Eye Research (ISER) and served as the Vice-President of the 12th Congress of the ISER in Yokohama (1997). He has published many original articles that include "*Differentiation of lens tissue from the progeny of chick retinal pigment cells cultured in*

vitro: A demonstration of a switch of cell types in clonal cell culture. Proc. Natl. Acad. Sci. USA, 70: 1495, 1973″, ″*Transdifferentiation in the vertebrate retinal pigmented epithelial cell*. In *Progress in Retinal Research* 12 (Ed. Osborne NN et al.) pp. 205, Pergamon Press, Oxford, 1993″ and ″ *Lens regeneration*, Iwanami-shoten, Tokyo, 1980″. For the excellence of his research, he has received many Awards, and they are *Prize of Japanese Society of Zoology* (1968), *Chunichi Culture Prize* (1981), *Alco Research Institute Award* (U.S.A.) (1989) and *Palmes Academiques*, Chevalier (France)(1994). In recognition of his meritorious scientific achievements, the Government of Japan conferred on him the Purple Ribbon Medal in 1995. (Kumamoto University, 2-39-1, Kurokami-cho, Kumamoto, 860-0862, Japan; phone:81-96-342-3111, fax: 81-96-342-3110)(SM)

Eguchi, Koichiro (1926-) Japanese Ophthalmologist, Director of Eguchi Eye Hospital. Born as the third generation of an Ophthalmology family, he graduated from Tokyo University in 1949 and studied Ophthalmology under Prof. HAGIWARA Hogra. After having completed residency training he carried out research at the Department of Biochemistry of the University under Prof. SHIMAZONO Koji and received his Doctor of Medical Sciences in 1956 (thesis: *Studies of diffuse superficial keratitis. No. 1: Concentration of Vitamin B2 in the blood*, J. Jpn. Ophthalmol. Soc. 59:118, 1955; No. 2: *Loading test of Vitamin B2 and blood concentration of Vitamin B2-ester*. ibid. 60,597, 1956). He served as the Lecturer at the University of Tokyo from 1956 to1959, and he returned to his father's hospital in Hakodate, Hokkaido, where he has worked as the Director since 1962 to the present. During almost half a Century of his work in Hokkaido, he contributed greatly to the eye health of the people, School eye health, and conducted free consultation in various parts of Hokkaido. In particular, he examined many premature babies and developed the method of preventing the retinopathy. As a result, the prevalence of this retinopathy dropped sharply. He is the Founder Director of Southern Hokkaido Ophthalmology Conference and managed it for over 40 years, thus contributing to the education of not only Ophthalmologists of the region, but also of the public. These endeavors have been summarized in ″*Regional management of retinopathy of prematurity in Hokkaido Area*. J. Jpn Clin. Ophthalmol. 33: 607, 1979″, ″*Results of Ophthalmological Screening of School children carried out over 11 years. ibid. 34: 1415, 1980*″ and ″*My thought and trials in regional Ophthalmology practice*, Ganka-practice, 46: 1999″. He has held many key positions in professional and local Medical Associations. He served as the President of the 8th Congress (1993) of the Japan Society of Cataract and Refractive Surgery where he has been on the Board of Trustees (1985-1999). His service has been recognized by various authorities and he received many Awards, e.g. Award of Ministry of Health and Welfare for public health activities in rural areas (1978), Award of the Ministry of Health for Assistance for the handicapped (1985), Award from the Ministry of Education for School Health (1991), Highest Honor Award from the Japan Medical Association (1992) and Hakodate Culture Award (1993), and many others. (Eguchi Eye Hospital: 7-13, Suehiro-cho, Hakodate, 040-0053, Japan; phone:81-138-23-2272, fax: 81-138-22-6929)(SM)

Eichhoff, Joseph (*1855-?) German physician . He wrote:*Ein Fall von beiderseitigem Colobom der inneren Augenhäute ohne Colobom der Iris* Bonn 1878.

Willem Einthoven

Einthoven, Willem (1860-1927) Dutch. Born to Dutch parents in Java, in 1885 received a Ph.D. in medicine at the University of Utrecht with a thesis on stereoscopy through color differentiation, and became professor of physiology and histology at Leiden, where he spent the rest of his life. Einthoven's great work was the study of the action current of the heart; he invented the term ″electrocardiogram″ and devised a string galvanometer which provided the first precise representations of the heart's electrical activity. He was awarded the Nobel Prize in 1924. *Stereoscopie door kleurverschil*. Utrecht 1885.

Eisenbarth, Joh. Andreas (1661-1727) German quack.Born in Bavaria he became an itinerant oculist, rupture specialist, cutter for stone, and hare-lip operator. His patients were many, but seem not to have fared well.

Ekl, Max August German ophthalmologist, concerning whom nothing at all is known, except that he wrote ″*Von der Thränensackfistel*″(Munich, 1852). American Encyclopedia of Ophthalmology, Vol.6, p.4168.

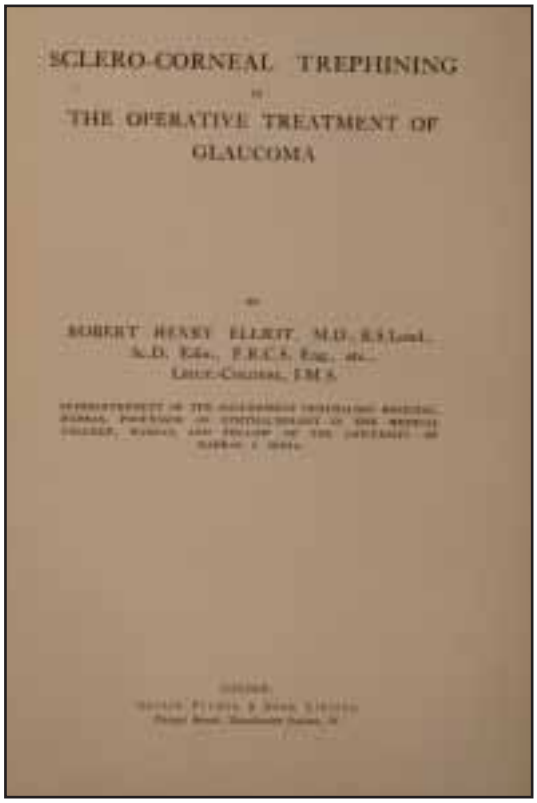
Ellaby, Charlotte Louisa (1854-1909) British lady ophthalmologist from London.She spent many years in India, but returned to London to devote herself entirely to ophthalmology. In 1890 she organized an eye department in the New Hospital for Woman and was appointed first ophthalmic surgeon to the institution. The Ophthalmoscope 1909,p.518.

Elles, Norma Bertha (1884-1959) American ophthalmologist, born in Evansville, Indiana, daughter of Jacob and Caroline Elles, where she lived and attended public school, finishing high school in 1902. She attended the University of Michigan at Ann Arbor and received her A.B. degree and M.D. degree in 1906. Her internship was done in the old Women's Hospital of Chicago. She went to Houston, Texas, and did general practice for three years. Then, through the influence of Archer, she became interested in the study of ophthalmology. She was encouraged in her training by Dr. E. V. L. Brown in Chicago where she spent the next four years in study and a residency at the Illinois Eye and Ear Infirmary. After a year at the Sorbonne and work in Vienna she began the private practice of ophthalmology in Houston, Texas, in 1912 where she practiced continuously until her retirement in 1952. Many of her summers during the years were spent in the study of ophthalmology in Italy, Vienna, London, or Paris pursuing some special subject as refraction, slitlamp, or orthoptics. She was a member of the A.M.A., Texas State Medical Association, Mississippi Medical Association, American Women's Medical Association, American Academy of Ophthalmology and Otolaryngology, and the American Ophthalmological Society. At the request of Mr. and Mrs. Daniel Ripley of Houston, Texas, old friends and patients, she became interested in the organization of settlement houses and went to London to study their plans and development, and returned to form the Ripley Settlement House in Houston for the Ripley Foundation. Elles spent the winters of 1956 and 1957 in Haiti and aided William Mellon in organizing the eye service in the Schweitzer Memorial Hospital of Haiti. An article appeared in the AJO of June 1958, describing her service there. Elles retired, due to poor health, to Kalamazoo, Michigan, in 1952. AJO 1959, 47:598

Ellett, Edward Coleman (1869-1947) American ophthalmologist, known affectionately by his friends as "The Colonel". Ellett was born in Memphis, Tennessee, the son of judge Henry T. and Katherine Coleman Ellett. His formal education was received in Memphis private schools, Southwestern Presbyterian University at Clarksville, Tennessee (now Southwestern College at Memphis), and the University of the South at Sewanee, Tennessee. Both schools at later dates conferred upon him honorary degrees, Southwestern College the degree of doctor of law, in June, 1942, and the University of the South, the degree of doctor of science, in June, 1943. Ellett studied medicine at the University of Pennsylvania from which he received his M.D. degree in 1891 and from which he was graduated as top man in the clags. An internship at St. Agnes Hospital and a residency at Wills Eye Hospital, Philadelphia, prepared him for a long life of service in his home community. This service was atknowledged by his colleagues with a testimonial dinner in May, 1943, to celebrate his 50th year of active practice of medicine in Memphis. "The Colonel" was a great teacher. For 16 years he was Professor of Ophthalmolog'y at the University of Tennessee Medical School, but his main interest was in graduate teaching in ophthalmology. In this field he had many associates in his private office, who later branched off into their own practices in Memphis and other cities, continuing successfully the precepts he taught so well. Ellett's interests were mainly in clinical ophthalmology and his papers were based, as a rule, on the experiences of actual practice. Too numerous to record, there is scarcely a one which cannot yet be read with profit. He attended medical meetings religiously and was an active participant in discussions, disclosing a tolerant attitude toward the opinions of others but being firm in his own convictions. He belonged to every local, state, and national medical organization both in general medicine and his specialty. He had served as president of the Memphis and Shelby County Medical Society, the Memphis Society of Ophthalmology and Otolaryngology, the Tennessee Academy of Ophthalmology and Otolaryngology, the American Academy of Ophthalmology and Otolaryngology, the American Board of Ophthalmology, and the American Ophthalmological Society, and was chairman of the Section on Ophthalmology of the American Medical Association and vice-president of the Southern Medical Association and the National Society for the Prevention of Blindness. He had served as an associate

editor of the Am J. of Ophthalmology. The Academy honored him with the Award of Merit; the Board, with a testimonial silver tray; and the National Society for the Prevention of Blindness, in conjunction with the St. Louis Society for the Blind, awarded him the Leslie Dana Medal. The Memphis and Shelby County Medical Society and the Memphis Society of Ophthalmology and Otolaryngology honored him on separate occasions with testimonial dinners. During World War I, Ellett commanded Base Hospital 115 at Vichy, France, for which he received a citation for meritorious service. While in the Medical Corps, he was made a f ull Colonel, a title by which he was known the rest of his life. His fraternal orders were Kappa Sigma and Phi Alpha Sigma, and he belonged to the Memphis Country Club and the University Club of Memphis. A deft surgeon, Ellett pioneered in the USA many of the surgical techniques that are became in his time standard procedures, such as intracapsular cataract extraction with the corneoscleral suture, the Elliott corneoscleral trephining, the diathermy treatment of retinal separation, and plastic dacryocystorhinostomy. He was the center of a large audience in the operating theatre and never failed to give his most masterly performance in the presence of on-lookers. He maintained his steady and accurate hand to the very last and, although restricting his office practice to consultation only, continued his intraocular surgery daily until the end. AJO 1947, Vol.30

Elliot, Robert Henry (1864-1936) British ophthalmologist. The son of a Colonel in the Army he was educated at Bedford School and St. Bartholomew's Hospital. He had a brilliant career as a student and qualified M.B., Lond. in 1890, with honours in obstetrics and forensic medicine. In the following year he took the B.S., again with honours. He passed the examinations for the F.R.C.S., Eng. and the D.P.H., Cantab. in 1892, and proceeded M.D., Lond. in 1895. In 1904 he became D.Sc., Edin. Elliot entered the Indian Medical Service and was Montefiore medallist and scholar in military surgery and Maclean prizeman at Netley in 1892. His work in India naturally led to a very large experience in operative ophthalmology which resulted in his being Superintendent of the Government Ophthalmic Hospital, Madras, for ten years, 1904-1914. During this period he was also Professor of Ophthalmology at the Madras Medical College. He became a life member of the Ophthalmological Society in 1902. At the Seventeenth International Congress of Medicine in 1913 he was a reporter on the subject of operations for glaucoma. On his return to England he settled and rapidly acquired a very large practice. In 1917, Elliot was Hunterian Professor at the Royal College of Surgeons, and his lectures on " *The Indian Operation of Couching for Cataract* " were afterwards published in London 1918. He was also Chairman of the Naval and Military Committee of the British Medical Association from 1917 to 1922. Elliot's work on sclero-corneal trephining for glaucoma brought him many distinctions, including the hon. fellowship and gold medal of the American Academy of Ophthalmology and Oto-Laryngology, the hon. membership of the Ophthalmological Societies of Egypt, Detroit, Chicago, Minnesota and the Pacific Coast. He was Ophthalmic Surgeon for a time to the Prince of Wales' Hospital, Tottenham, and hon. Consulting Ophthalmic Surgeon to the London Hospital for Tropical Diseases. He was also Vice-President of the Institute of Hygiene, and Chairman of the Executive Committee of the British Health Resorts Association. In all these capacities Elliot made his driving force felt and he accomplished much good work. His literary output was considerable. For many years he was the Madras correspondent of The Ophthalmoscope, and he collaborated in the production of The Ophthalmic Year Book in 1912, 1913, 1924. His book *Sclero-Corneal Trephining in the Operative Treatment of Glaucoma* London, Pulman & Sons, (1913) received a second edition in 1914, as did his *Treatise on Glaucoma* (1918 & 1922). Besides these he wrote: *Glaucoma Handbook for the General Practitioner*, (London 1917); *Glaucoma, A Textbook for the Student* (London 1918) and a *Lectures of Tropical Ophthalmology* (London 1920) which was translated into many foreign languages (French edition in 1922) , and a small work on ophthalmic nursing titled *Care of Eye Cases* which also was published, 1921, in London and also published in Chinese language. Upon Elliot's interests outside ophthalmology such as snakes and illusions, this is not the place


SCLERO-CORNEAL TREPHINING
IN
THE OPERATIVE TREATMENT OF
GLAUCOMA

to enlarge; but his *Myth of the Mystic East* which appeared in 1934, should be remembered. He was a first class amateur conjurer and as Chairman of the Occult Committee of the magic circle he did much investigation of numerous exhibitions of magic. It will be remembered that his conclusion anent the Indian rope trick was that no such trick had ever been performed. On snakes Elliot was a great authority. Elliot's work on sclero-corneal trephining first appeared in The Ophthalmoscope in December, 1909, as a preliminary report on 50 cases. It led to much discussion with regard to priority causing a spate of correspondence on this subject at the time: Andrew Freeland Fergus, of Glasgow, had operated by trephining the sclera since early in 1909, had read a paper at the meeting of the British Medical Association in Ireland in that year and had performed his operation at the Oxford Ophthalmological Congress. But beyond the report in the British Medical journal he had not published anything. Like most beginners in this operation, Freeland Fergus found that he was not always able to place his trephine sufficiently far forwards to tap the anterior chamber. If the iris did not Prolapse he was wont to pass a spatula forwards into the anterior chamber, thus combining a cyclodialysis with his scleral trephining. Elliot was the first to insist on dissecting a short way into the cornea before applying the trephine, and his work has, of course, stood the test of time; the operation has been known by his name all over the world. BJO 1936,20:698-700. Lancet 1936,2:1240; Brit med J. 1936,2:1010;Nature 1936,138:913. JPW

Elliott, John (1747-?) English apothecary and physician, of a slight importance in ophthalmology because of his "Experiments and Observations on Light and Colors, etc." Born at Chard, Somerset, Elliott became at first an apothecary, but later received the degree of Doctor in Medicine.He starved himself to death in jail, where he lay awaiting trial for the murder of his wife. American Encyclopedia of Ophthalmology, Vol.6, p.4285.

Elliott, John (Sir John) (1736-1786) Scottish physician, born in Edinburgh, received his M.D. at St. Andrews in 1759 and established a successful London practice. He was knighted in 1776 and became physician to the prince of Wales. His medical writings are mainly compilations. *Philosophical observations on the senses of vision and hearing* London 1780. Albert

Elworthy, Frederick Thomas (1830-1907) British philologist, antiquary, and folklorist, of Somersetshire, England, became interested in the "evil eye" and kindred superstitions during travels in continental Europe. He published two books on folklore, in addition to a number of works on grammar, dialect, and archaeology. *The evil eye; an account of this ancient and wide spread superstition*. London 1895. Albert

Ely, Edward Talbot (1850-1885) American ophthalmologist. Born in Rochester, N. Y., the youngest son of Dr. W.W. Ely. He graduated at Rochester University in 1871, and at the College of Physicians and Surgeons, New York, in 1874. When he had served in the Presbyterian and Charity Hospitals for some time,he became associated with Dr. D. B. St. John Roosa.He became Assistant Surgeon to the Manhattan Eye and Ear Hospital,Surgeon to the Charity Hospital, and Associate Professor of Ophthalmology and Otology in the New York Post-Graduate School of Medicine. In 1878 he became a Member of the American Ophthalmological Society. He wrote no book, but contributed numerous ophthalmologic articles to various journals. American Encyclopedia of Ophthalmology, Vol.6, p.4285.

Emden, Jakob (1796-1860) German surgeon , of slight ophthalmologic importance. Born in Frankfort-on-the-Main, he received his medical degree at Göttingen, presenting as dissertation "*De Raphiarcestro, Novo Instrumento ad Coremorphoseos Methodum Perficiendam.*" This instrument is said by Stricker to be pictured in Blasius' "*Akiurgische Abbildungen*" Berlin, 1833, plate 17, Fig.72-77. Emden practised for a long time at Frankfort, and was for some years physician to the Jewish hospital. American Encyclopedia of Ophthalmology, Vol.6, p.4298.

Emerson, William (1701-1782) British mathematician who spent his life in the village of Hurworth in Durham county, England. He published about two dozen books, including one on optics: *The elements of optics in four books* London 1768. Albert

Emmert, Emil (1844-1911) Swiss ophthalmologist. Born in Berne, Emmert studied his profession in that place, and received his medical degree in 1868. After a period of

graduate study in Berlin, Vienna, London, and Utrecht, where those who chiefly interested him were A. v.→Graefe, →Arlt,→Critchett and→Bowman, he settled in Berne (in 1870) and there continued to practice ophthalmology and to teach that subject as privat docent, until his death. In addition to numerous articles, and a large amount of able editorial work (rendered as collaborator) he wrote: 1. *Refractions-und Accommodationsverhältnisse des Menschlichen Auges.* Bern 1876; 2. *Schuluntersuchungen und Schulhygiene.* 3.*Auge und Schädel.*Berlin 1880; 4. *Die Organe des Sehens in den verschiedenen Thierkreisen. Il. Über die Farben und ihre Beziehungen zum menschlichen Auge* Bern 1872;Gesichtswahrnehmungen und Sinnestäuschungen Bern 1872; American Encyclopedia of Ophthalmology, Vol.6, p.4298-4299; The Ophthalmoscope, 1911,p.878; Albert

Emori, Yasubumi (1925-) Japanese Vision scientist and engineer. He graduated from the Faculty of Engineering of Tokyo University in 1943, and studied at the Department of Instrumentation under Prof. HIOKI Ryuichi. He was appointed the Professor of Engineering of Chiba University in 1961 and served until retirement 1989, whereupon he is entitled Professor Emeritus of Chiba University. His research interest has been in Colorimetry, Image Processing, Ophthalmic Optics and instruments. His many publications include ″*Application of image processing technique for analyzing the optical system of the eye*, *Advances in diagnostic visual optics*: 55, 1986″ and ″*Recent studies of progressive additional lens at HOYA*, The Vision Care 1998″. He trained many scientists and ophthalmologists who are currently working in the field of Visual Optics. Cataract research at Kanazawa Medical College using Scheimpflug technique is being carried out under his guidance. He is a member of Japan Society of Ophthalmic Optics, International Society of Optical Engineering, and many others. (e-mail: yemori@mbf.sphere.ne.jp) (SM)

Engelking, Ernst (1886- 1975) German ophthalmologist.University lecturer at Freiburg/Bresgau 1920, professor 1925, professor and chair 1930 in Cologne and from 1935 in Heidelberg. Emeritus 1957. Main field: Physiology and pathology of color and light perception. Tuberculosis of the eyes. He wrote: ″*Tuberkulose des Auges*″ 1925; *Grundriss der Augenheilkunde*, 14th edition 1964. Countless articles mainly in *Klinische Monatsblätter f. Augenheilkunde* and *Graefe´s Archiv für Ophthalmologie.* Co-editor of *Zentralblatt f.d.gesamte Ophthalmologie* and *Die Farbe*. Kürschners Gelehrten- Kalender 1966,p.480.; F.Hollwich Ophthalmologenverzeichniss 1964,p.92.

Engelmann, Theodor Wilhelm (1843-1909) German, born in Leipzig, he studied from 1861-67 at Jena, Leipzig, Heidelberg and Göttingen. Returning to Leipzig in 1867, he there received his medical degree, presenting as his thesis ″Ueber die Hornhaut des Auges.″ He settled at once in Utrecht, where he became assistant to Donders at the Utrecht Physiologic Laboratory. Soon thereafter (Mar. 20. 1871) he, became docent, at Utrecht University, and later, full professor -a position which he held till his death. He wrote a large number of articles on physiologic subjects,in which he paid considerable attention to the physiology of the eye. American Encyclopedia of Ophthalmology, Vol.6, p.4316. The Ophthalmoscope 1909,p.518.

Eno, Henry Clay (1840-1914) American ophthalmologist. Born in New York City, Eno received his medical degree at the College of Physicians and Surgeons in the City of New York in 1864. Settling in New York City as ophthalmologist and oto laryngologist, he soon had a large private practice and was for some years attending surgeon at the New York Eye and Ear Infirmary. Dr. Eno was a small, lean man of a fair complexion and with brown eyes and hair. His manner was quietly humorous. He read widely, and was a good all-round scholar. He was a well-known collector of rare books, and was interested, as he himself was often heard to say, in almost everything except politics, and religion. American Encyclopedia of Ophthalmology, Vol.6, p.4317.

Enoch, Jay M. (1929-) American Vision Scientist, Professor of the Graduate School of the University of California (UC) Berkeley and Professor of Physiological Optics in Ophthalmology of the UC San Francisco. He graduated from Columbia University, Department of Optometry in 1950 with B.S. degree, and then studied physiological optics at Ohio State University Graduate School with Ph.D. granted in 1956. During the course

of these studies, he worked with Prof. G.K. Smelser, Dr. Isadore Finkelstein at Columbia and with Dr. D. Cogan and E. Kinsey at Harvard University. Subsequently he studied with Dr. W. S. Stiles as a post-doctoral fellow at the National Physical Laboratory Teddington Middlesex, UK during 1959-1960. He has held key teaching positions at many universities in the United State and abroad, e.g. Research Professor of Ophthalmology and Director of the Center for Sensory Studies (1974-1980), Visiting Professor to the Japanese Association for the advancement of Science at Waseda University (1978), Professor of Optometry and Physiological Optics (1980-1994), Dean (1980-1992), Chairman, Graduate Group in Vision Science (1980-1992), Professor the Graduate School (1994-), Dean Emeritus (1992-) at UC Berkeley, Founder and Member of the Board of Studies of Elite School of Optometry, Medical Research and Vision Foundation, Sankara Nethralaya, Madras, India(1985-), Visiting Professor at University of Bologna Italy (1992-1993), at University of Santiago de Compostela, Spain (1996), University of Aukland, New Zealand (1999) and University of Complutense, Spain (2000). He has devoted himself to Vision research and made significant achievements in many areas of this science. He found anomalies of photoreceptor orientation through measurement of Stiles-Crowford effects (Further studies on the relationship between amblyopia and the Stiles-Crawford effect. M. J. Optom. Arch. A.A.O. 36: 111, 1959; An analysis of retinal receptor orientaiton (with A Laties) I, II. Invest. Ophthalmol. 10: 69, 959,1971); he developed techniques of optimizing vision in eyes with low vision thereby to overcome early developmental forms of amblyopia: he has been active in development of perimetric methods and accomplished the "layer-by-layer quantitave perimetric technique"(Quantitative layer-by-layer perimetry, Proctor Lecture, Invest. Ophthalmol. Vis. Sci. 17: 208-257, 1978); he also has proved the usefulness of vernier visual acuity that can be adopted as the standard for vision testing in general. On the basis of his expertise, he has been the key person in various councils and committees of the Government or other organizations, e.g. Chairman of the Visual Function Committee of the International Council of Ophthalmology (1982-1985), National Advisory Eye Council of NIH (1975-1977) and the Navy and Army Committees. He is a recipient of many honor medals and awards, e.g. Glenn Fry Lecture Award from the American Academy of Optometry (1971), Charles F. Prentice Medal 1974 (Marked accommodation, retinal stretch, monocular space perception and retinal receptor orientation. Am. J. Optom. Physiol. Opt. 52: 376, 1975), Proctor Medal from the Association for Research in Vision and Ophthalmology (1977), Otto Wichterle Medal from the International Contact Lens Council (1986), Everett Kinsey Memoral Lecture, Honorary Degree, Doctor of Science from the State University of New York and many others. He has been interested in the early history of lenses and mirrors: he traced back to Minoan (Crete) and Old Kingdom of Egyptian times 2500 BC. He edited: ENOCH, Jay M., et al., : *Quantitative Layer-By-Layer Perimetry: an extended analysis*. Grune 1981. (School of Optometry, 688 Minor Hall, University of California Berkeley, CA 94720-2020, U.S.A.; phone:+1-510-642-9694; fax:+1-510-643-5109;e-mail: jmenoch@socrates.berkeley.edu)

Yoshchiro Enomoto

Enomoto, Yoshichiro (? -1933) Japanese Ophthalmologist. He graduated from Tokyo University in 1881, and studied Ophthalmology under J.→SCRIBA. He was appointed the Professor of Ophthalmology in Fukuoka Medical School in 1883. The Medical School was closed in 1880, but he stayed as the Head of the Eye Department of the Hospital (Kyushu University was founded later with this hospital). He played a central role in the Foundation of the Medical Association of Fukuoka, and served as the President for 6 years, 1910-1915. (SM)

Ens, Sicco (1779-1842), of Franeker, Holland, received his M.D. at the University of Franeker in 1803; his dissertation, on the history of the extraction of cataract, is considered a classic work. He became professor at Franeker (*University of Franeker*: founded in 1585, closed down in 1811[JPW]) in 1809, and after the University was closed, was made professor at the Atheneum. Ens' skills as a surgical practitioner were much admired. He medical thesis was titled *Historia extractionis cataractae* [Johannes Henricus Regenbogen, praeses] Worcumi Frisiorum 1803. Albert

Ensor, Henry Collen (?-1910) English ophthalmologist, born in Cardiff, Wales, the son of a solicitor.Ensor received his medical education at Guy's Hospital, London. At the latter institution he was for some time ophthalmic clinical assistant. He became an M. R. C. S. and an L. S. A.in 1885. After a brief period spent as Resident Surgical Officer of the

Birmingham and Midland Eye Hospital, he settled in his native town as ophthalmologist.He soon became ophthalmic surgeon to the Cardiff Infirmary, and in 1887, was made a member of the Ophthalmological Society of the United Kingdom.American Encyclopedia of Ophthalmology, Vol.6, p.4324.

Eperson, Samuel (1859-1923) Swiss ophthalmologist who had been Director of the ophthalmologic Clinic in Lausanne. Born at Féchy, he studied medicine in Leipzig, Würzburg and Paris, where he became assistant to Landolt. He received his Doctor's degree in Berne, and in 1888 became oculist to the University Polyclinic at Lausanne. In 1908 he succeeded Marc →Dufour to the professorship. His more important scientific contributions dealt with tenotomy and advancement for high degrees of squint, the myopia operation, retinal detachment, management of the malingerer, corneal ulcers, correcting glasses for keratoconus and the abortive treatment of serpent ulcer with zinc sulphate. He also reported a case of hemichromatopsia. AJO, 7:487-488

Epicurus (Born 342/342 BC) The founder of the Epicurean school of philosophy, and a speculator concerning vision and the nature of light. His early years were passed at Samos and at Teos.He taught for a short time at Mitylene and Lampsacus, then for thirty-six years at Athens.His theory of vision was that rays of light proceed from the eye(not the object) and, securing visual information, return therewith to the crystalline lens. Here the″soul″was supposed to receive the information. American Encyclopedia of Ophthalmology, Vol.6, p.4483.

Erggelet, Heinrich (1883-?) German ophthalmologist. Lecturer 1916 at Jena University; professor 1921. Professor and chair 1935 at Göttingen University. Kürschners Gelehrten-Kalender 1966,p.488.

Erismann, Friedrich (1842-1915) German ophthalmologist. The Ophthalmoscope,1916, p.391.

Eskew, Jr., Rhea T. (?-) American scientist, Associate Professor whose main interests are the research in visual psychophysics, particularly color detection and discrimination. Eskew received his B.S. at The University of the South in 1976, his M.S. at the Georgia Institute of Technology in 1980 and his Ph.D at the Georgia Institute of Technology in 1983. Professional path: From 1983 to 1986 National Eye Institute Postdoctoral Fellow (N.R.S.A.), Center for Human Information Processing, University of California at San Diego; 1986-1990: Research Associate in Biomedical Physics, Harvard University; from 1990 to 1995:Assistant Professor of Psychology, Northeastern University; 1995-1997:Departmental Graduate Coordinator, Chair of the Graduate Committee and from 1995 to present Associate Professor of Psychology, Northeastern University. Eskew belongs to the following societies: Psychonomic Society, Association for Research in Vision and Ophthalmology (ARVO), Optical Society of America (OSA),Sigma Xi. Representative publications are: Eskew, R.T., Jr., McLellan, J.S., & Giulianini, F. (in press) *Chromatic detection and discrimination*. To appear in Gegenfurtner, K., & Sharpe, L.T. (Eds.), *Color vision: from molecular genetics to perception*. Cambridge: Cambridge University Press. Giulianini, F. & Eskew, R.T., Jr. (1998) *Chromatic masking in the (L/L, M/M) plane of cone-contrast space reveals only two detection mechanisms*. Vision Research*, 38*, 3913-3926. Wu, S., Burns, S.A., Elsner, A.E., & Eskew, R.T., Jr., & He, J. (1997) *Rapid sensitivity changes on flickering backgrounds*. Journal of the Optical Society of America *A, 14*, 2367-2378. Stromeyer, C.F. III, Ryu, A., Kronauer, R.E., Chaparro, A., & Eskew, R.T. Jr. (1995) *Contribution of human long-wavelength and middle-wavelength cones to motion detection*. Journal of Physiology*, 485*, 221-243. Eskew, R.T., Jr., Stromeyer, C.F. III and Kronauer, R.E. (1994) *Temporal properties of the red-green chromatic mechanism.* Vision Research*, 34*, 3127-3137. Eskew, R.T., Jr., Stromeyer, C.F. III and Kronauer, R.E. (1994). *The time-course of the facilitation of chromatic detection by luminance contours*. Vision Research*, 34*, 3139-3144. Chaparro, A., Stromeyer, C.F. III,, Huang, E.P., Kronauer, R.E. & Eskew, R.T., Jr. (1993). *Colour is what the eye sees best*. Nature*, 361*, 348-350. Eskew, R.T., Jr., Stromeyer, C.F. III and Kronauer, R.E. (1992*) The constancy of equiluminant red-green thresholds examined in two color spaces*. Advances in Color Vision Technical Digest Series, (Optical Society of America) *4*, 195-197. R.T. Eskew,Jr., Department of Psychology, Northeastern University, Boston, MA 02115, Tel.:(617) 373-3863 (office) Fax: (617) 373-8714 eskew@neu.edu (JPW)

Espino, José Manuel (1885-1960) Venezuelan ophthalmologist. Espino was born in Guasipati, Bolivar State, Venezuela. After his primary school in Zaraza, Guarico State, he came to Caracas and received the Bachelor in Philosophy and Sciences at the Central University of Venezuela, Caracas, in 1902, and the degree of Medical Sciences from the same institution in December 5, 1908. After several years of general practice Espino decided to specialize in ophthalmology. He received his training at the College of Physicians and Surgeons, University of California in 1915, and at Philadelphia Polyclinic, Wills Eye Hospital, Philadelphia General Hospital in 1916. Later he took courses in eye surgery at the University of Paris, Faculty of Medicine. Espino was an indefatigable student and through his frequent traveling, systematic reading, and organized correspondence kept himself informed of the advances in his speciality. Returning to his own country after training he started his practice of ophthalmology and became interested in teaching. In 1918, he initiated the Catedra Libre of Ophthalmology and in 1931 was appointed professor of ophthalmology at the Central University Caracas, a position he held until his retirement in September, 1948. From that date until his death he was honorary professor of ophthalmology of the Central University of Venezuela, Caracas. More than 70 papers on different facets of ophthalmology are his contribution to ophthalmology. His *History of Ophthalmology in Venezuela* is unique in his country. He was a member of 21 medical and ophthalmoligical societies. He was president of the Venezuelan Academy of Medicine and one of its most active members. For his merits he received several, medals, the last one being the Andres Bello Medal, on the anniversary of his medical graduation. AJO 1960,49:1058-1059

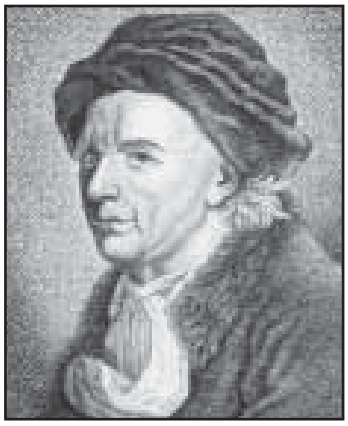
Espiritu, Romeo B. (1931-) Filipino Ophthalmologist, Professor Emeritus of the University of the Philippines (UP). He graduated from the UP in 1954 with MD degree granted. He further extended studies in ophthalmology, in the USA, and at home, and acquired the Diplomate of American Board of Ophthalmology (1960) and of the Philippine Board of Ophthalmology (1973). He served as the Professor and Chairman of the Department of Ophthalmology of University of the Philippines Phil. Gen. Hospital Medical Center. (1976 – 1979) and continued to serve as the Professor and retired in 1996. He is the past Chairman of the Department of Ophthalmology, Manila Doctors Hospital since his retirement from the University. He is a member of many national and international societies, and has held many key positions: some examples are Councillor of Philippine Ophthalmological and Otolaryngological Society (1966 – 1970), Vice-President (1970 – 1972) and the President (1972 – 1974) of the Philippine Society of Ophthalmology, Vice-President of the National Council of Blindness Incorporated, (1972 – 1974), President of the Philippine Academy of Ophthalmology (1984 – 1985), Chairman of the Committee on Examination and Chairman of the Philippine Board of Ophthalmology, Member of the National Research Council, Regional Secretary of the Asia-Pacific Academy of Ophthalmology (APAO) (1985 – present), and the Secretary of XVII APAO Congress (1988). He also has served as editor to many journals, that embrace Chief-Editor of the *Transactions of the Philippine Academy of Ophthalmology and Otolaryngology*, *Philippine Journal of Ophthalmology*, *Journal of the Philippine Society of Ophthalmology and Otolaryngology* (1966 – 1970). He is one of the authors of the *Philippine Textbook of Ophthalmology*, JMC Press Inc. (1980), and he has published more than 70 scientific papers: some examples are *"Studies in the Healing of Corneal Grafts: The Fate of the Endothelial Cells of the Grafts as Determined by Sex Chromatin studies*. Am. J. Ophthalmol. 52: 59, 1961", *"Retinoblastoma in the Philippines*. Phil. J. Ophthalmol. Otolaryngol. 1967: 19-35", *"Diagnostic Problems of Retinoblastoma*. Jpn. J. Ophthalmol. 22:431, 1978" and *"Risk factors in Central Retinal Vein Occlusion in Filipinos*. Phil. J. Ophthalmol. 17:124, 1988". He is a recipient of many honor awards e.g. First Prize 1958 Research award for Clinical Research from Manila Medical Association, Distinguished Service Award from APAO (1982) and many research awards (1962- 1988), and the first Luis V. Santos Lectureship of the Philippine Ophthalmological Society (1977). (Phone / Fax:(632) 525-22-60, Suite 207 Medical Arts Center, MANILA DOCTORS HOSPITAL United Nations Ave. Ermita, Manila, Philippines) (SM)

Estlander, Jakob August (1831-1881) Danish surgeon, who devoted considerable attention to ophthalmology. Born in Helsingfors he received his medical degree in 1860, there settled as surgeon,and there became professor of surgery at the University in 1860.

Estlander's only ophthalmologic writing was "*Ueber Chorioiditis nach Febris Typhosa Recurrens*" (v. Graefe's Archiv.,XV,1869).American Encyclopedia of Ophthalmology, Vol.6, p.4525.

Ettmüller, Christian Friedrich (1773-1848) An eighteenth century German physician, of some ophthalmologic importance. Born in Altgersdorf near Zittau, he received his medical degree at Wittenberg,in 1796, and afterwards entered the army in a medical capacity. He was also for a long time county physician (Kreis-Arzt) at Delitsch. In addition to numerous works of a general medical character, he wrote the following:1. *Abhandlung über die Krankheiten der Augen und Augenlider.* (Leipzig, 1799.) 2. *Von den Mitteln, die Gesundheit der Augen zu Erhalten*. (Lübben, 1800; 2d ed., 1802.) American Encyclopedia of Ophthalmology, Vol.6, p. 4545. Albert

Euclid (fl. 300 B.C.) Greek mathematician who is thought to have spent his early life in Athens and his maturity in Alexandria, where he taught mathematics. He became famous for his *Elements*, a great work of geometry. Euclid also wrote treatises on optics and astronomy. In his *Optics*, he states that vision is caused by rays proceeding from the eye to the object, that the figure formed by the visual rays is a cone whose vertex is at the eye and whose base is at the edges of the objects seen, and that for every object there is a certain distance from the eye at which it ceases to be visible because it falls within the interspace between two visual rays-the minimum visual angle. *Orontii Finaei In sex priores libros Geornetricortan elementorum Euclidis….demonstrationes*. Lutetiae Parisiorum: Apud Simonem Colinaeum, 1544. *La prospettiva di Eclide* Tradotta dal R.P.M. Egnatio Danti Fiorenza 1573. Albert



Leonard Euler

Euler, Leonard (1707-1783) Swiss optician and professor of mathematics, who, during the last seventeen years of his life, was totally blind. Euler was born in Basle, Switzerland. When twenty-eight years of age, he became blind in one eye as the result, according to some, of three days uninterrupted reading and thought, according to others, however, of a severe fever. At the age of fifty-nine, Euler lost the other eye. Twelve years later (in 1778) he received at the hands of a famous oculist,Baron Wenzell,a complete restoration of the sight of one eye. Soon, however, owing, it is said, to long-continued reading, he became completely blind again, and so remained until his death. Euler, after the onset of his blindness, wrote a number of valuable books. One, in particular, on algebra, of very high repute, and several, of scarcely less repute, concerning the moon. He was wont to declare that his powers of mind had been enormously increased by his blindness, and that he had no cause at all to regret what, to others, must have appeared as an inexpressible calamity. In 1730 he became professor of Physics at the Academy in St. Petersburg, and in 1733, in the place of Bernouilli, professor of the higher mathematics in the same institution. In 1741 he went to Berlin, as Director of the mathematical class. In 1736 he published "*Mechanica sive Motus Scientia Analytica Exposita*" a valued contribution to its subject. He was also very active in the field of optics, bitterly opposing,both the omission theory of light and also the theory of immediate action at a distance. Euler it was, in fact, who, next to →Fresnel, afforded the greatest service in establishing on a firm (it would almost seem a permanent) foundation the theory of a luminiferous ether: *Dioptricae explicatione principiorum* (3 vols.) Petropoli 1769-1771. Euler himself was blind! American Encyclopedia of Ophthalmology, Vol.6, p.4548-4549. Albert

Evans, Griffith Francis Dorsett (early 19th cent.) British. He was a physician on the staff of the Eye, Ear, and Throat Hospital in Shrewsbury, England, from 1814 (the year of the hospital's founding) to 1832. He wrote: "Practical observations on cataract and closed pupil" London 1815. Albert

Evans, John Jameson (1871-1941) British ophthalmologist, born at Scythlin, Pencader, Carmarthenshire. He was educated at St David's College School, Lampeter, at Carmarthen, and at Edinburgh Queen Elisabeth's Grammar School, where he graduated with honours in 1892. After serving as house surgeon to the Carmarthenshire Infirmary he became resident surgical officer at the Birmingham and Midland Eye Hospital; later he was appointed ophthalmic surgeon to the hospital, retiring in 1934 as consulting surgeon. He was also for many years consulting surgeon to the Birmingham General Dispensary, to the Royal Institute for the Blind at Edgbaston, to the Hallam Hospital at West and to the

Bromsgrove Hospital. He was for twenty-five years lecturer in ophthalmology at Birmingham University, and Middlemore Lecturer in 1899, 1907, 1911 and 1926. During the war of 1914-18 he served as ophthalmic surgeon at the 1st and 2nd Birmingham War Hospitals. Evans was secretary of the section of ophthalmology at the British Medical Association's Birmingham meeting in 1911, and vice-president of the section at the London centenary meeting in 1932. He was a vice-president of the Ophthalmological Society of the United Kingdom, and had been president of the Midland Ophthalmological Society and of the Medical Society. He was a foundation member of the Oxford Ophthalmological Congress and served on its council for nineteen years. Evans was much interested in pathology. A few of his papers are: *Eye affections in connection with blood and vascular diseases* (Middlemore lecture, 1899). Bgham med. Rev. 1900, 47: 78; *Rhinology in relation to eye diseases*. Ibid. 1901, 49:156; *The eye symptoms of traumatic hysteria*. Ibid. 1904, 50:535; Prophylactic measures in ophthalmology. (Middlemore lecture, 1907) Ibid. 1907, 62:287; *Visual efficiency of injured workmen*. Ibid. 1910,68:127; *Some manifestations of pituitary growths*. Brit. med. J. 1911, 2:1461; *Toxic diseases of the eye*. (Middlemore lecture, 1911.) Bgham med. Rev. 1912, 72:17; *Phototraumatism* Ibid. 1913, 74:205; *Recent advances in ophthalmology*. (Middlemore lecture, 1926) Ibid. 1927, n.s. 2:45; *Peripheral reflexes in disease*. Evans earned his titles, degrees and honours as follows: M.R.C.S. 13 May 1897; F.R.C.S 8 June 1899; M.B., C.M. Edinburgh 1892; L.R.C.P. 1897; M.D. Birmingham 1903. Lancet, 1933, 2, 1474. Brit. med. J. 1941, 2:320; Lancet, 1941, 2:298; Brit. J. Ophthal. 1941, 25, 505

Evans, John Norris (1891-1953) American ophthalmologist whose extracurricular activities did not prevent normal progress through grade school and Erasmus Hall High School from which he was graduated in 1912. He entered the Long Island College Hospital in the fall of the same year and received an M.D. degree in the class of 1916. A year of internship at the Bushwick Hospital, Brooklyn, was followed by a residency in ophthalmology at The Brooklyn Eye and Ear Hospital. Evans soon established a large private practice and advanced to positions of leadership at The Brooklyn Eye and Ear Hospital, eventually becoming chief of one of its several eye services. Not content with routine clinical practice, he experimented in the fields of optics and ocular physiology. His published results earned him the Lucien Howe Prize awarded by the Medical Society of the State of New York, membership in several distinguished societies, and an international reputation. He became known as the "*father of angioscotometry*", a new field of clinical and investigative study of the retina in health and disease. His observations in this realm formed the subject matter for a book entitled *Clinical Scotometry* New Haven 1938. An achievement that brought him great satisfaction was his appointment, in 1935, to the professorship of ophthalmology at his alma mater. He was forced, by ill health, to resign from that post as well as to curtail many other activities in 1948. Another honor of which he was especially proud came from his alma mater in 1951 when he was awarded the alumni prize for outstanding accomplishment. Evans was a fellow of the American College of Surgeons and a diplomate of the American Board of Ophthalmologv. He was a member of the American, New York, and Brooklyn Ophthalmological Societies and of the American Academy of Ophthalmology and Otolaryngology. He was also a member of the Medical Society of the County of Kings, the New York State Medical Society, the American Medical Association, and the Associated Physicians of Long Island. At the time of his death he was a member of the consulting staffs of The Brooklyn Eye and Ear, The Brooklyn, the Long Island College, and St. Peter's Hospitals, and a consultant to the Ophthalmological Foundation and the National Society for the Prevention of Blindness. AJO 1953,36:1759-1760.JPW

Evans, Lewis Philip Jameson (1907-1973) British ophthalmologist. Lewis Philip Jarneson Evans was born at Edgbaston, Birmingham, the son of John Jameson Evans, FRCS, a distinguished ophthalmic surgeon and lecturer in ophthalmology in Birmingham University; his mother was a daughter of the Rev Thomas Charles Edwards DD, first Principal of the University College of Wales, Aberystwyth. From West House School, Edgbaston, he went to Charterhouse, and then to Caius College, Cambridge, where he was secretary of the University Medical Society, president of the Caius Medical Society, and won his College colours for hockey, golf, and shooting. He came to St Bartholomew's Hospital for his clinical course, where he was Shuter Scholar in 1928 and qualified with

the Conjoint Diploma in 1931 and the Cambridge degrees in 1932. After house appointments at the Birmingham General and the Birmingham Eye Hospitals he took the FRCS and the DOMS diplomas in 1933, and proceeded to the MD Cambridge in 1936. At the General Hospital he came under the influence of Seymour Barling, while his father was his chief mentor at the Eye Hospital. In 1933 Jameson Evans was appointed to the consultant staff of the Queen's Hospital, the Children's Hospital, and the Birmingham and Midland Eye Hospital to which his father and he between them gave continuous service from 1898 till 1972. He also became a lecturer in ophthalmology in the University of Birmingham, and held consultant posts at the Birmingham General Dispensary, the Hallam Hospital, the Bromsgrove Cottage Hospital, and the Royal Institution for the Blind. From 1945 he was ophthalmic surgeon to the United Birmingham Hospitals, and in 1955-56 he was President of the Midland Ophthalmological Society. In addition to these local commitments he was a member of the Faculty of Ophthalmologists of the Royal College of Surgeons from its inception and its Vice-President 1961-63. He served as an examiner for the DO of the Conjoint Board, and was a member of the Court of Examiners for the Fellowship in Ophthalmology of the Royal College of Surgeons. He was elected Master of the Oxford Ophthalmological Congress in 1963, Vice-President of the Ophthalmological Society of the United Kingdom in 1966-69, and President of the Section of Ophthalmology of the Royal Society of Medicine in 1969. Some publications are: *Underlying causes of glaucoma*. (Middlemore Prize Essay) Brit. J. Ophthal. 1939,23:745; *Modern problems in glaucoma*. (Montgomery Lecture, Dublin.) Trans. Ophthal. Soc. U.K. 1971, 91 :861. Evans received following titles: MRCS 193 1; FRCS 1933; BA, MB, BCh Cambridge 1932; MD 1936; LRCP 193 1; DOMS 1933. Brit.med. J. 1973, 2:58; Lancet 1973,1:786;AJO 1973,76:312

Evans, Thomas (1849-1909) Australian ophthalmologist from Sydney. Evans was a co-founder of the Ophthalmic Institute in connection with the Sydney Hospital. The Ophthalmoscope 1909,p.303.

Eve, Frederick (Sir Frederick) S. (? – 1917) British surgeon who was ophthalmic house surgeon at St.Bartholomew´s Hospital, London and from 1888-1889 lecturer of ophthalmic surgery at the London Hospital. He was knighted in 1911 and was 1917 Vice-President of the Royal College of Surgeons of England.AJO,1:293.

Eversbusch, Oscar (1853-1912) German ophthalmologist. Born in Haspe, Westphalia,he studied at Bonn and Munich, at the latter institution receiving his degree in 1877. In 1882 Eversbusch became privat docent in ophthalmology at Munich, and at the Veterinary High School in the same city, in which capacity he served till 1886.From that date till his death, he was full professor of ophthalmology at Erlangen. Among his more important writings were the following: 1. Beiträge zur Genese der Serösen Iris Cysten. 2. Beitäge zur Embryologie und Teratologie des Glaskörpers. 3. Bemerkungen über die Anwendung der Antiseptica. 4. Über einige Veränderungen der Plica Semilunaris.(Munich, 1883.) 5.Die Neue Univ.-Heilanstalt der Augenkranke in Erlangen.(1893.) 6. Ophthalmolog. Beiträge. (In Handbuch der Therapie by Penzoldt and Stintzing,I and II ed.,1896 till 1898.)7.Augenerkrankungen im KindesaIter. (1912.) Eversbusch was also one of the collaborators on the Graefe-Saemisch *Handbuch* 2d ed., which began to appear in 1899. American Encyclopedia of Ophthalmology, Vol.6, p.4553-4554.

Ewetzky, Th. von (1851-1909) Russian ophthalmologist. Ewetzky entered in 1870 the Medico-Surgical Academy at Petrograd. He received his medical degree in Germany at Heidelberg.In 1892 he became assistant at the eye clinic in the University of Moscow. In 1893 he was appointed privatdocent for ophthalmology at this institution, in 1895 professor extraordinary, and five years later was called to the full professorship of his specialization at the University of Dorpat.American Encyclopedia of Ophthalmology,Vol.6,p.4564-4565.

Ewing, Arthur Eugene (1855-1929) American ophthalmologist, born in Cartersville, Georgia. His father was a sturdy example of the family physician in a scattered community of a rugged constitution, he defied old age, practicing actively until well beyond four score years. The son was graduated from Dartmouth in 1878, and was admitted to the Alabama bar in 1879. A very brief practice of law convinced him that the legal calling held no appeal for him, so he began the study of medicine and he was

graduated from the Saint Louis Medical College in 1883. He then accepted the opportunity of entering the office of John Green. Three years of this training was followed by two years, at the "Koenigliche Christian-Albrechts" university, Kiel, Germany, after which he returned to Saint Louis and associated himself with Drs. Green and Post. He was associated with the eye department of Washington University throughout his life, assuming the professorial chair in 1902, and being active in the development of ophthalmology in the school until his retirement in 1921, to become professor emeritus. Of the many honors given him suffice it to mention that he was a member of each of the national ophthalmic societies; held the office of vice-president of the section on ophthalmology of the American Medical Association, and received the degree of master of arts from Washington university in 1912 and that of doctor of science from the same university in 1926. He insisted on there being a laboratory connected with his office and if ever there was a slack day he would get out his specimens and work on them. The young men trained in his office were urged to make investigations and to present their studies before the medical societies. AJO 1929,12:235-236

Exner, Siegmund (1846-1926) Austrian ophthalmologist of Vienna. He studied there and in Heidelberg, where →Helmholtz was teaching. He received his M.D. at the University of Vienna in 1870, and from 1875 was professor of physiology there. His writings deal chiefly with neurophysiology and physiologic optics. *Die Physiologie der facettirten Augen von Krebsen und Insecten* Leipzig & Wien 1891.Albert

Eyre, J.W.H. (1870-1944) British bacteriologist and ophthalmologist. After qualification from Guy's Hospital in 1893 he became ophthalmic assistant to →Brailey and →Higgens. In that period of life he published in an important series of papers, the results of his work on bacteriology of the eye , in which he was one of the pioneers.BJO 1944; 28:202.

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Fabini, Friedrich (?-?) Born in Siebenbürgen, he received his medical degree at Pesth, Hungary, in 1822. In 1823 he became Fellow of the Medical Faculty at Pesth. A year or two later he settled in Klausenberg, where he practised for many years. His most important ophthalmologic writings are: "*Beobachtungen über den Grauen Staar"*(v. Graefe u. Walther's Jour.der Chir., xiv, 1830); "*Pflege Gesunder und Kranker Augen* " (Leipzig,and Pesth,1831, 1835).

Fabini, Janos T. (1791-1847) Hungarian Ophthalmologist. Fabini was born in the Hungarian village of Hassag. He attended a grammar school in Kolozsvar, Transylvania, and studied medicine in Vienna. For two years, from 1815, he was Assistant of Professor →BEER and during the same period he worked together with many well-known ophthalmologists, as von→Graefe, →Jaeger, →Rosas, →Quadri, →Mackenzie, →Flarer and →Ammon. In 1817 Fabini was appointed to the Chair of Ophthalmology at the University of Budapest. The clinic with its 24 beds was in a rather primitive condition, and he worked hard to modernize it. He lectured on ophthalmology for two terms both in Hungarian and German. He was one of the Ophthalmologists of international reputation who did extensive research work and wrote highly estimated scientific contributions. His favourite subjects were diseases of the cornea, ophthalmological instruments, operations for squint, etc. The manuscript of his papers as well as his handwritten case histories from the years 1820 to 1830 are preserved in the library of the II. Eye Clinic of the University Medical School in Budapest. He performed numerous cataract operations. In the beginning he preferred reclination to extraction but in the eighteen—forties his cataract operations were extractions in 70 per cent. His best-known work, the '*Doctrina de Morbus Oculorum*' is a university textbook in Latin on Ophthalmology, published in Pest. It was, indeed, the last book on Ophthalmology to appear in Hungary in Latin. In 1831 it was translated into Hungarian, German, Italian and Dutch. The book was considered so well written for university tuition that it was used not only in the University of Pest but also in Padua and Utrecht. His monograph on the diseases of the cornea, '*Praecipuis Corneae Morbis*' is equally noteworthy, it was published in Buda in 1830 also in Latin. Also: *Einige Bemerkungen über das Schielen*" (Med.Jahrb.des k.k. Oesterr. Staates,xxxiv, 1841.) and numerous articles in the Encyclopedic Dictionary of the Medical Sciences and in "*Orvosi Tár*.". Magda Radnot: *Famous Hungarian Ophthalmologists* (Budapest, 1970)

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