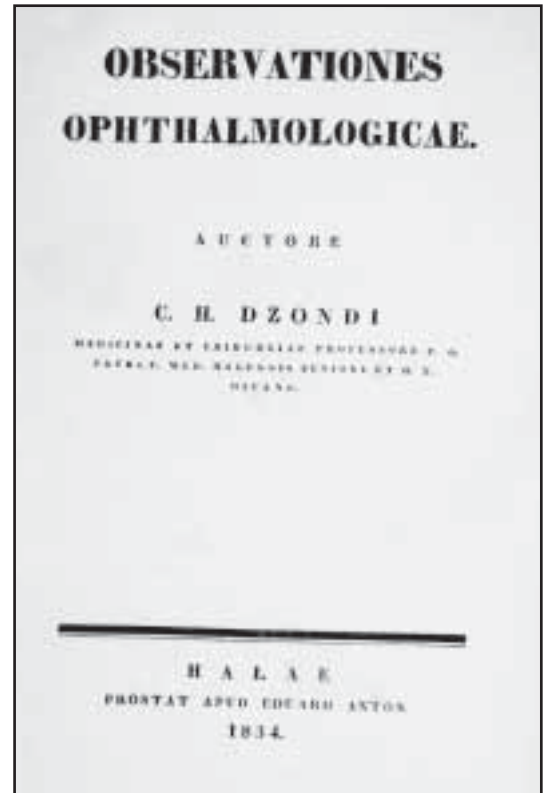


Dyes, August (1813-1899) German physician of Hannover, who practiced in his native city following study in Göttingen and Berlin. He wrote: *Aerztlich begründete Schweinefütterungs-Methode* Verden 1864; *Aerztliche Beobachtungen, Forschungen und Heilmethoden* Hildesheim 1877; *Die rationelle Heilung der 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



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 III, 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 Gedächtnis* (1885). His other chief interest was in the physiology of the sense organs; he and Arthur König founded the *Zeitschrift für 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 Augenzündung*. 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 Wisconsin, 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 Sylvania 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 Enophthalmos.*" 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 to 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 to 1959, 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 Women and was appointed first ophthalmic surgeon to the institution. *The Ophthalmoscope* 1909, p.518.

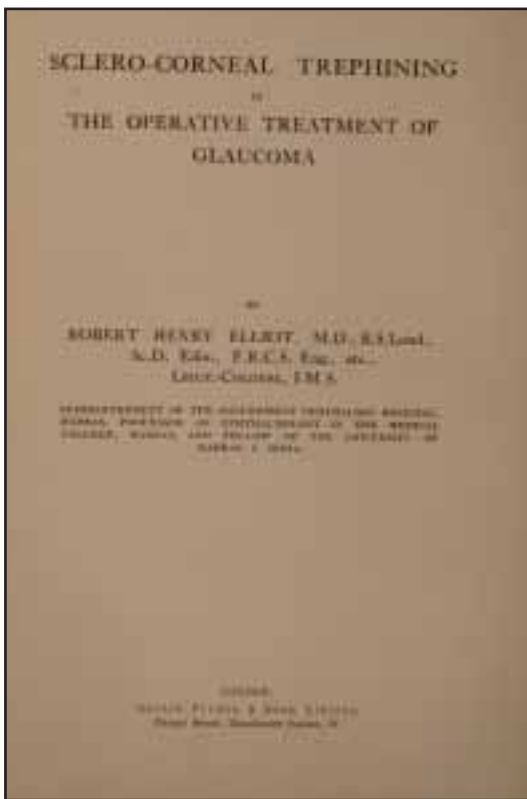
Elles, Norma Bertha (1884-1959) American ophthalmologist, born in Evansville, Indiana, daughter of Jacob and Caroline Elles, where she lived and attended public school, finishing high school in 1902. She attended the University of Michigan at Ann Arbor and received her A.B. degree and M.D. degree in 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 class. 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 acknowledged 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 Ophthalmology 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 full 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



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. *Refraktions-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. II. 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 Ophthalmologenverzeichnis* 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 quantative 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 Memorial 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)



Yoshichiro 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. His 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 ophthalmological 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

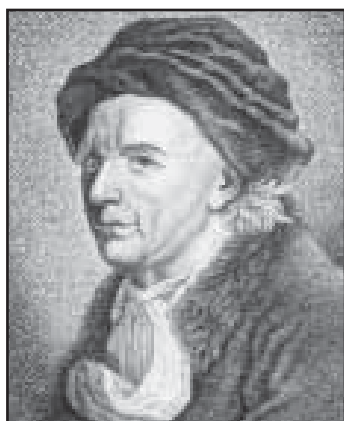
Espiritu, Romeo B. (1931-) Filipino Ophthalmologist, Professor Emeritus of the University of the Philippines (UP). He graduated from the UP in 1954 with MD degree granted. He further extended studies in ophthalmology, in the USA, and at home, and acquired the Diplomate of American Board of Ophthalmology (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 Geometricorum 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 explicacione 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 Ophthalmology. 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 Jameson 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 Augenranke in Erlangen.(1893.) 6. Ophthalmolog. Beiträge. (In Handbuch der Therapie by Penzoldt and Stintzing,I and II ed.,1896 till 1898.)7.Augenerkrankungen im Kindesalter. (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 →Higgins. 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.

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 Kolozsvár, 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 reclinatio 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)

Fabini, Johann Gottlieb see **Fabiani, Janos T.**

F

Fabri, Honoré (1606-1688) French mathematician and physicist, who was born near Belley, France, educated at the College de la Trinite in Lyons, and ordained a Jesuit priest in 1635. He taught metaphysics, astronomy, mathematics, and natural philosophy at the College from 1640 until 1646, then was transferred to Rome as a member of the Penitentiary College (the Inquisition), remaining there for the rest of his life. Fabri engaged in research and controversy on a wide range of scientific issues, including heliocentrism, the explanation of tides, and the circulation of the blood (he discovered the latter, independently of Harvey, about 1636); his writings on light and colors contributed to the science of optics. *Synopsis optica* Lugduni 1667. *Tracatus duo: quorum prior est de plantis, et de generatione animalium: posterior de homine*. Paris 1666. Albert

Fabricius ab Acquapendente. See **Fabricius, Hieronymus**.

Fabricius Hildanus. see **Fabry, Wilhelm**.



Hieronymus Fabricius

Fabricius, Hieronymus (1533-1619) Also called Fabricius ab Acquapendente. Born in Acquapendente (Aquila Tusciana) near Orvieto, Italy, Fabricius studied, at Padua, first ancient languages and philosophy, and, later, medicine and surgery. He was pupil and successor of Falloppio, as well as eminent teacher of William Harvey, the discoverer of the circulation of the blood. Though Fabricius was one of the most celebrated surgeons of all time, and author of the greatest work on surgery composed in the Renaissance period, it nevertheless possesses but little ophthalmologic importance. Thus, his ocular operations are all essentially taken from the Greeks and the Arabians—chiefly Celsus, Paulus and Albucases—and he even admits that he himself has performed the cataract operation only twice or thrice all told. Later, he renounced this operation absolutely, recommending for cataract the use of a certain collyrium in an eye-cup. He wrote: "*De Formato Foetu*" Venice 1600 [GM465]; "*De Formatione Ovi et Pulli*" Patavii 1621 [GM 466]; "*De visione, voce, auditu*". Venice 1600 ; "*Tractatus anatomicus triplex. Quorum primus de oculo*" Frankfurt 1614; "*Oeuvres chirurgicales*" Lyon 1649 (French translation of *Opera chirurgica*); "*Opera chirurgica in pentateuchum, et operationes chirurgicas distincta*". Editio quinta ... Padua 1666; "*Le opere chirurgiche*" Padova 1684 American Encyclopedia of Ophthalmology, Vol. 7, p.5132-5133. Albert

Fabriz, Wilhelm. see **Fabry, Wilhelm**.

Fabrizzi, Girolamo see **Fabricius, Hieronymus**.

Fabry, Wilhelm (1560-1634) He is also called Wilhelm Fabriz, Fabricius Hildanus, and "The Other" Fabricius (in contradistinction to Fabricius ab Acquapendente). The son of P. A. Fabry, clerk of a court at Hilden, Germany, the subject of this sketch was born at Hilden (hence the name, "Hildanus"), June 25, 1560. Fabry was a classical scholar and a brilliant and resourceful surgeon. He is often called, and properly, "the first learned German surgeon." He was the first to amputate the thigh, and was equally daring and ingenious in otology and ophthalmology. He is often said to have been the first in history to remove from the eye a piece of steel or similar foreign body by means of the lodestone or magnet. This honor, no doubt, belongs to →Braunschweig, or Brunswick, but Fabry's operation is, nevertheless, so extremely important and the original narrative thereof is so quaintly exact and interesting that we here subjoin an almost literal translation: "*A patient from the region of the 'Bieler See' wishing to buy a fire-steel, first tested it by striking it on a stone. A spark then flew up into that part of the cornea, where the iris can be seen, and took fast hold under heavy pain. His neighborhood employed upon him for many days all its industry, but in vain. When the pain and inflammation had powerfully increased, he came to me at Bern on the 5th of March, 1624. I put him on right diet, emptied his body by purgatives and phlebotomy, for he was plethoric, and sought at various times and on divers days to remove the iron splinter. But it was so small that it could not be removed by means of instruments. Then my wife thought up the most appropriate cure. While I, that is to say, with my two hands, open the lids, brings she the magnet to the eye, as near as the patient can bear it. When we had done this many times and repeatedly (for not long could he bear the daylight, which however in this matter was an absolute necessity) then, finally, sprang forward before our eyes the splinter onto the magnetstone. After that, the patient got well rapidly under the employment of a pain-relieving collyrium. So you see that much which cannot be carried out by main strength can be easily performed by care. One must,*

however, well observe that mostly the opposed powers of this magnetstone must be found in one and the same piece—that is, that the iron attracts at the one end, but at the other repels: which indeed was looked after in the case of our magnet. In order, therefore, to avoid error, one must, before the operation, test all the corners of the stone exactly, in order that no part which drives iron away from it may be brought toward the eye. That is, moreover, easy to test, by bringing the magnet gradually toward iron filings which have been strewed upon a table or on a clean piece of paper." Another remarkable operation of Fabry's (which, once more, he was not the first, but the second, to perform) was that of total removal of an eyeball. (The first to remove the entire eye was George →Bartisch). Fabricius seems to have been a man of the highest moral character. All his contemporaries speak well of him in this respect. He was also very pious. His motto, engraved on a copper plate, was "Omnis tutela a Deo.". Among his more important writings are: "*New Feldt Arztny Buch von Kranckheiten und Schäden, so in Kriegen den Wundarzten gemeinlich fürfallen*" Basel 1615[GM2142]. "*De Combustionibus*" Basel 1607[GM2245], "*De Gangraena et Sphacelo*" Cologne 1593[DM5566]. "*Observationum et Curationum Chirurgicarum Centuriae* 6 volumes, Basel, Franckfort & Lyons 1606-1641 [GM5570] ; "*Selectae observationes chirurgicae quinque & viginti*. Geneva 1598. "*Opera quae extant omnia* Frankfurt 1682. American Encyclopedia of Ophthalmology, Vol.7, p.5133-5134. Albert

Fairclough, William Aiken (1881-1968) New Zealand ophthalmologist. Fairclough's interest in the specialty started with his spell as resident house surgeon at the Royal Westminster Ophthalmic Hospital in 1907, after which he passed the F.R.C.S.E. examination and returned to New Zealand. He became a Foundation Fellow of the Royal Australasian College of Surgeons in 1928, and for 28 years was a senior honorary ophthalmic surgeon at Auckland Hospital. He became particularly interested in gas keratitis, contact lens work (he attended Dallos's clinic in 1938), and heredity in retinoblastoma. In addition he presented papers at meetings of zoological societies and similar institutions. Fairclough was a man of great integrity who never hesitated to defend his own rights or those of his profession, and he was a force majeure in New Zealand ophthalmology for four decades. BJO 1968, 52:942

Fajardo, Romeo V. (1927-) Filipino Ophthalmologist, Professor Emeritus of the University of the Philippines, College of Medicine. He graduated from the University of Philippines (UP) in 1952 with M.D. degree granted and studied Ophthalmology at the UP Hospital under Prof. G. DeOcampo. He completed residency training at Wills Eye Hospital and received Diplomate of the American Board of Ophthalmology in 1960, worked as a Fellow in Uveitis at the same Hospital. On home coming, he received Diplomate of the Philippine Board of Ophthalmology in 1973. The academic positions he has held are Assistant Professor (1966-74), Associate Professor (1974-85), Professor (1985-92) of the University of Philippines and retired in 1993. He was chairman of the UP Department of Ophthalmology from 1988-91. He is currently serving as the Chairman of the Manila Doctors Hospital since 1998. In the professional Societies, he served in many key positions and some examples are President of Philippine Society of Ophthalmology (1975-76), Philippine Board of Ophthalmology (1971-present), Chairman (1987-97) and Chairman Emeritus (1997-) of the Board, Councillor (1981-) and the President of XVII Congress of the Asia-Pacific Academy of Ophthalmology (APAO), Director of the Philippine Society for Prevention of Blindness (1978-), President of the Association of Philippine Ophthalmology Professors (1991-), Country Representative to the International Agency for the Prevention of Blindness (1976-), Councillor of the International Ocular Inflammation Society (1991-), Regional Secretary of the International Geographic Ophthalmology Society (1982-) and many others. He established a Uveitis Clinic at the Philippine General Hospital of UP, expanded the Neuro-ophthalmology Clinic, founded Research Units at the Hospital and organized many courses for advanced study of Ophthalmology. Furthermore, he established Rural Eye Clinic adopting a community approach and Station Eye Clinics to distribute manpower to rural areas and also the Ophthalmic Aid Training Course. He adopted a modular eye care system for prevention of blindness throughout the Country. He has written many textbooks in Ophthalmology and monographs, e.g. *Textbook of Ophthalmology*, JMC Press, 1980, *Prevention of Blindness* 1979-1999, JMC Press, Quezon City, and *Posterior Chamber Implantation*, UP

1987, and 36 original papers in International Journals and 139 papers in National Journals. He has been editor to the *British Ophthalmic Literature*, *Oftalmologia International* (Madrid), *Archivos Oftalmologia* (Madrid), *Afro-Asian Journal of Ophthalmology* (New Delhi) and *Asia-Pacific Journal of Ophthalmology* (Singapore). He is currently Editor-in-Chief of the *Philippine Journal of Ophthalmology*. For his outstanding contributions, he received many Honor Awards: some examples are Award of Merit, Philippine Society of Ophthalmology (1977), Distinguished Service Award of APAO(1981, 1999), XVI Jose P. Rizal Memorial Lectureship (Recurrence in Uveitis, a concept in prevention) of the Philippine Academy of Ophthalmology, (1985) and many Alcon Research Awards. (Chairman, Manila Doctors Hospital, 667 United Nations Ave. Manila, Philippines, 1000. phone/fax: +632-523-0421; e-mail: fajardo@evoserve.com) (SM)

Fallopia see **Falloppio**.

Fallopis see **Fallopio**

Faloppia see **Falloppio, Gabriele**



Gabriele Falloppio

Falloppio, Gabriele (1523-1562). He was also called Fallopio, Fallopius, Falloppia, Fallopia. This great contemporary and pupil of Vesalius and, after that marvelous master, the most important of all anatomists, was born in Modena, Italy. He studied at Padua, travelled in Greece and France, became professor of anatomy at Ferrara, then at Paris, and finally at Padua. He was the teacher of →Fabricius ab Acquapendente, who, in turn, became a teacher of William Harvey. Falloppio is said to have been just, modest, and gentle, but, on the other hand, he is also declared, at least by some, to have accepted gifts from certain convicts and then to have destroyed these poor creatures by poisoning. In ophthalmology, Falloppio is to be remembered because of his having shown that the retractor bulbi muscle (Choanoides) does not exist in the human subject. This structure was described as a portion of the human ocular apparatus by Galen (who had really observed such a muscle in cattle, sheep and other large herbivore) and the error had been conscientiously propagated for more than thirteen hundred years. He wrote: *Opuscula tria III. Tractatus de vulneribus oculorum* Venice 1569. *Opera omnia ... Mutinensis, physicae chirurgicae praeclarissimi, in felicissimo gymnasio patavino olim rem anconicame chirurgicam admirabilicum laude protitentis* Frankfurt 1600. American Encyclopedia of Ophthalmology, Vol. 7, p. 5142. Albert



Louis Salomon Fallot

Fallot, Louis-Salomon (1773-1872) Belgian ophthalmologist. Fallot was born in The Hague (Holland) the son and grandson of physicians, he accompanied a series of military expeditions in his medical and surgical capacity (As military physician he participated to the Napoleonic wars from 1808 to 1815), founded in Namur (Belgium) an ophthalmic hospital in 1817, and at last, in 1848, retired, settled down in Brussels. He wrote his very important papers on *military ophthalmia* before 1850 : "*Recherches sur les Causes de l'Ophthalmie qui Règne dans quelques Garnisons de l'Armée des Pays-Bas, etc.*" (Brussels, 1829). We have to cite here his later papers in the *Annales d'Oculistique* and his chairmanship of the *First International Congress of Ophthalmology* in 1857. He was a member of the French Belgian Academy of Medicine since its foundation in 1841. (Verriest)JPW

Fan, Richard F.T. (?-) Singapore Ophthalmologist. He graduated in 1973 from the University of Singapore with MBBS, then obtained Fellow of the Royal College of Surgeons of Glasgow (1980), FRCS (Edinburgh) and FRC Ophth (UK). He also obtained FAMS (Singapore). On his return from the UK where he spent one year at Moorfields Eye Hospital, he worked at the Department of Ophthalmology, Singapore General Hospital, Ministry of Health. He was promoted to Consultant in 1986 and Senior Consultant in 1991. He was a Fellow in vitreo-retina subspecialty at Eye Research Institute, Boston and at the Retina Associates and at the Massachusetts Eye and Ear Infirmary, Harvard University in 1985. He also spent some time at Addenbrooks Hospital, Cambridge, U. K. and at the Tennent Institute, University of Glasgow. He served as the Head of the Department of Ophthalmology, Tan Tock Seng Hospital (1988-1990) and as the Head of the Department of Ophthalmology, Singapore General Hospital and Senior Consultant, Singapore National Eye Centre (1990-1992). Presently, he is a Consultant Ophthalmologist, Mt Elizabeth Hospital and serves as Examiner to the Master of Medicine

(Ophthalmology), University of Singapore and on the panel of examiners, Royal College of Surgeon of Edinburgh. He is the President of the Singapore Association of Visually Handicapped since 1997. (Dr. Richard Fan: 3 Mount Elizabeth #15-12, Mount Elizabeth Medical Centre, Singapore 228510: Phone: 65-7386997; Fax: 65-7387323) (SM)

Fano, Salvador (1824-1895) Dutch-Parisian ophthalmologist, born in Amsterdam, Holland. He received his medical degree at Paris in 1851, and, in that city, taught, investigated and practised until his death. He wrote: "*Recherches sur la Contusion du Cerveau*" Paris 1851; graduation thesis; "*Des Tumeurs de la Voûte Palatine et du Voile du Palais*" 1857, with 2 pl.); "*Mémoire sur la Catarrhe du Sac Lacrymal, etc.*" Paris 1863; "*Des Lunettes et de leur Emploi en Oculistique*" Paris 1867; "*Traité Pratique des Maladies des Yeux* (2 vols.) Paris 1866; "*Traité Elémentaire de Chirurgie*" 2 vols, 1869-72. From 1873 to 1882 he was editor of the *Journal d'Oculistique et de Chirurgie*.

Fanta, Helmut (1916-) Austrian ophthalmologist. MD 1937. Lecturer Vienna University 1949. Director department of ophthalmology Rudolphstift clinic in Vienna since 1956. Professor since 1959. He wrote: "*Ophthalmologie*" 1982; "*Praxis der Allgemeinmedizin*", VI, 1984. Contributions in volumes 9-10 of *Fortschritte der Augenheilkunde*. Over 150 papers in *Klinische Monatsblätter f. Augenheilkunde* and in *Ophthalmologica* (Basle). Co-editor of *Klinische Monatsblätter f. Augenheilkunde* and *Augen-ärztliche Fortbildungen*. Kürschners Gelehrten- Kalender 1966, p.511 and 1987, p.992; F. Hollwich Ophthalmologenverzeichnis 1964, p.97.

Faraday, Michael (1791-1867) one of the most distinguished of English chemists and natural philosophers, was born in Newington Butts, near London, England, where his father was a blacksmith. Chance having procured him admission, in 1812, to the chemical lectures of Sir Humphry Davy, the latter engaged him as his assistant at the Royal Institution. In 1827 he succeeded to Davy's chair of chemistry in the Royal Institution. Some of his chemical discoveries or investigations were: new compounds of chlorine and carbon (1821); alloys of steel (1822); compounds of hydrogen and carbon (1825); and the very valuable series of experiments, made in 1829-30, on the manufacture of glass for optical purposes. As practical applications of science his suggestions as to the preparation of the lungs for diving and the ventilation of lighthouse lamps are conspicuous. Amongst his most prominent publications are those concerning the condensation of the gases, limits of vaporization, optical deceptions, acoustical figures, re-gelation, relation of gold and other metals to light, and conservation of force. The great work of his life is the series of Experimental Researches on Electricity, published in the Philosophical Transactions during forty years and more. These give an account of his many discoveries relating to electricity, magnetism, electromagnetism, and dia-magnetism. Some of the most important of his discoveries are: induced electricity; identity of electricity from different sources; equivalents in electro-chemical decomposition; relation of electric and magnetic forces; hydro-electricity; magnetic rotatory polarization, and many others. He wrote: *Experimental researches in chemistry and physics*. London 1859. American Encyclopedia of Ophthalmology, Vol 7, p.5162-5163. Albert

Fario, Leovigildo Paolo (1810-1863) Italian ophthalmologist and founder of the *Annali Ottalmologici*. Fario studied at Padua, Pisa, Florence, Pavia and Bologna, practised at Venice, later (and longer) at Brescia. American Encyclopedia of Ophthalmology, Vol. 7, p.5164.

Farrar, John (1779-1853) mathematician, physicist, and astronomer, of Cambridge, Massachusetts, attended Harvard University (M.A., 1806), where he was a professor of mathematics and natural philosophy from 1807 to 1836. Farrar's translations and adaptations of the mathematical and astronomical works of Euler, Lacroix, Legendre, Biot, and others helped introduce the work of European scientists to American schools. He authored: *An experimental treatise on optics* Cambridge (USA) 1826. Albert

Farre, Frederick John (1804-1886) British, London ophthalmologist, second son of the still more distinguished John Richard Farre. He studied at St. Bartholomew's Hospital from 1829 to 1837. In 1834 he became Assistant Physician to the Royal London Ophthalmic Hospital, and also at St. Bartholomew's. In 1854 he was made physician to the latter institution, as well as to the Charterhouse. In 1838 he became a F. R. C. S. He wrote

little if, anything about the eye. He edited, however, the first edition of the British Pharmacopoeia, and Pereira's *Materia Medica*. American Encyclopedia of Ophthalmology, Vol. 7, p. 5164.

Farre, John Richard (1774-1862) British, London pathological anatomist and ophthalmologist, co-founder with Saunders of the Royal London Ophthalmic Hospital. Born in 1774, on the Island of Barbadoes, the son of a physician, he studied at Guy's Hospital and St. Thomas' Hospital, London, and practised for a time in the Antilles. Later, he practised in Glasgow, Aberdeen and London. He also became physician to the London Dispensary. He made an enormous collection of pathologico-anatomical specimens, which became the property of St. Bartholomew's Hospital. He wrote "*An apology for British Anatomy..etc..*" London 1827; "*The Morbid Anatomy of the Liver*" London 1815; "*Observations on the Cure of Hydrocele etc..*" Medical Records 1813. American Encyclopedia of Ophthalmology, Vol. 7, p. 5164. Albert

Farrell, Charles (1779-1855) British military surgeon, received his M.D. at Edinburgh in 1798 and served in the army until 1833, rising to the position of Inspector General of Hospitals. He wrote: "*Observations on ophthalmia, and its consequences*." London 1811.



Irving Fatt

Fatt, Irving (1920-1996) American Engineer and corneal physiologist. He received MS degree in 1948 from University of California, Los Angeles, and he worked as a Senior Research Chemist at Standard Oil of California. Concurrently, he completed his thesis and received his Ph.D. from the University of Southern California in 1955. He came to UC Berkeley in 1957 as an assistant professor of mineral technology, and in 1964 he created a Bioengineering Program in the College of Engineering, where he served as the Assistant Dean 1962-1966. He developed a micropolarography that allowed determination of oxygen tension in a very small circumscribed area: by this technology he determined the rate of corneal respiration and oxygen tension under the contact lens, and contributed greatly to the understanding of physiology of contact lens wear. He moved to the School of Optometry in UC Berkeley, where he trained many outstanding corneal physiologists, e.g., Robert Mandell, Richard Hill, Kenneth Polse and many others. His interest was not only contactology, but also the study of water flow and oxygen flow in the cornea. He wrote "*Polarographic Oxygen Sensors*" (CRC Press, 1973) and "*Physiology of the Eye*" (Butterworths, 1978). He served as the Dean of the School of Optometry 1978-1979. His lectures include Max Schapiro Lecture to the American Academy of Optometry (1973) and Everett Kinsey Lecture at the Contact Lens Association of Ophthalmologists (CLAO) (1988). He retired from the University in 1984: he received the Berkeley Citation that is the highest honor of the University of California. (SM)

Faubert, Jocelyn (*1959-) Canadian scientist born in Montreal. Faubert received his Ph. D. (1991) from Concordia University, (Experimental psychology). He is presently Professor at the École d'optométrie, Université de Montréal. He is a member of the Institut de Génie Biomédical, Université de Montréal ; of the Centre de Recherche en Sciences Neurologiques, Université de Montréal, and of the Groupe de recherche en Neuropsychologie Expérimentale, Université de Montréal. He received the following grants : Natural Sciences and Engineering Research Council of Canada (NSERC); Medical Research Council of Canada (MRC). MRC Scientist award and Operating grant. His group received also *Natural Sciences and Engineering Research Council of Canada (NSERC)*(Industrial and equipment grants) Essilor.(Industrial grant); Fonds Pour la Formation de Chercheurs et l'Aide à la Recherche (FCAR).(Operating grant). Faubert wrote : Habak, C. & Faubert, J. (In press) Larger effect of aging on higher-order function. *Vision Research*; Faubert, J., Bilodeau, L., & Simonet, P. (In press). Transverse chromatic aberration and colour-defined motion. *Ophthalmic & Physiological Optics* ; Faubert, J. & Overbury, O. (In press) Binocular vision in the elderly with adventitious visual impairment: Sometimes one eye is better than two. *Journal of the American Geriatrics Society*; Sara, M. & Faubert, J. (In press) Aging, perception, and visual short-term memory for luminance defined form. *Ophthalmic & Physiological Optics*; Faubert, J. & Herbert, A. (1999). The peripheral drift illusion: A motion illusion in the visual periphery. *Perception*, 28, 617 – 622; von Grünau, M.W., Faubert, J., Iordanova, M. & Rajska, D. (1999) Flicker and the efficiency of cues for capturing attention. *Vision Research*, 39, 3241-3252; Faubert, J, Simonet, P., & Gresset, J. (1999). Effects of induced

transverse chromatic aberration from an ophthalmic lens on spatio-temporal thresholds. *Ophthalmic & Physiological Optics*. 19, 336-346; Bittar, R., Ptito, M., Faubert, J. Dumoulin, S.O. & Ptito, A. (1999). Activation of the remaining hemisphere following stimulation of the blind hemifield in hemispherectomized subjects. *NeuroImage*. 10, 339-346 ; Labonte, F., Le Dinh, C.T., Faubert, J. & Cohen, P. (1999). Spatio-temporal spectral coding of stereo image sequences. *IEEE Transactions on Circuits and Systems for Video Technology*. 9, 144-155; Ptito, M., Johannsen, P., Faubert, J. & Gjedde, A. (1999). Activation of human extrastriate pathways after damage to area V1. *NeuroImage*. 9, 97-107; Bilodeau, L. & Faubert, J. (1999). Global motion cues and the chromatic system. *Journal of the Optical Society of America A*. 16, 1-5; Bilodeau, L. & Faubert, J. (1999). The oblique effect with colour defined motion throughout the visual field. *Vision Research*. 39, 757-763; Faubert, J., Diaconu, V., Ptito, M., & Ptito, A. (1999) Residual vision in the blind field of hemidecorticated humans predicted by a diffusion scatter model and selective spectral absorption of the human eye. *Vision Research*. 39, 149-157; Faubert, J.(1998) Visual processing throughout the visual field. *Proceedings of the International Symposium on Computer Graphics, Image Processing and Vision*. IEEE Computer Society Press . October 20-23, Rio de Janeiro, Brazil, pp. 2-9; Bellefeuille, A. & Faubert, J. (1998) Independence of contour and biological motion cues for motion-defined animal shapes. *Perception*.27, 225-236 ; Bilodeau, L. & Faubert, J. (1997). Isoluminance and chromatic motion throughout the visual field. *Vision Research* . 37, 2073-2081; Zackon, D.H., Casson, E.J., Stelmach, L., Faubert, J. & Racette, L. (1997). Distinguishing subcortical and cortical influences in visual attention: Subcortical attentional processing. *Investigative Ophthalmology & Visual Science*.38(2), 364-371; Stoerig, P., Faubert, J., Ptito, M., Diaconu, V., & Ptito, A. (1996). Do hemidecorticated patients have blindsight?*NeuroReport*, 7, 1990-1994; Faubert, J. (1996). Some optical, sensory, and perceptual factors to consider when viewing 3D displays. *Proceedings of the Third International Display Workshops: 3D Display Technologies and Human Factors*. Kobe, Japan, November 27-29; Faubert, J. (1995). Colour induced stereopsis in images with achromatic information and only one other colour. *Vision Research*35(22), 3161-3167; Faubert, J., & von Grünau, M. (1995) The role two spatially distinct primers and attribute priming in motion induction. *Vision Research*.35(22), 3119-3130; von Grünau, M., Saikali, Z., & Faubert, J. (1995) Processing speed in the motion induction effect. *Perception*, 24, 477-490; Labonté, F., Shapira, Y., Cohen, P., & Faubert, J. (1995) A modal of global symmetry detection in dense images. *Spatial Vision*,9(1), 33-55; von Grünau, M. & Faubert, J. (1994) Inter and Intra-attribute characteristics of attentional priming in motion induction. *Perception*. 23(8), 913-928 ; Faubert, J. (1994). Seeing depth in colour: more than just what meets the eyes.*Vision Research*., 34, 1165-1186. Address : Ecole d'optométrie, Université de Montréal, 3744 Jean-Brillant, C.P. 6128, succursale Centre-Ville, Montréal (Québec) H3C 3J7. Tel :(514) 343-7289 Fax: (514) 343-2382 Email: faubert@ere.umontreal.ca (JPW)

Faure (19th Century) A celebrated French quack of the early nineteenth century, ophthalmologist to the Duc de Berry. He wrote a work, no longer extant, entitled "*Description graphique des Yeux de Plusieurs Ayeugles Jugés Incurables qui ont Recouvré la Vue au moyen d'un Instrument et d'un Procédé Inventé par l'Auteur*" (Paris, 1820); and another, entitled "*Observations sur l'iris, sur les pupilles artificielles et sur la keratonyxis, ou nouvelle manière d'opérer la cataracte* .Paris 1819, 2nd edition Paris 1820 in which he pretends to have invented the operation (already old) called "*Discission of the Lens*."and "*Propositions médicales, précédées d'une introduction contenant l'exposé d'un travail sur les passions*" etc. Montpellier 1806 American Encyclopedia of Ophthalmology, Vol.7,p.5172. Albert, JPW

Faye, George de la (1699-1781) French ophthalmologist. Born in Paris, in the Faubourg du Roule, the son of a well-known surgeon and the nephew of the Surgeon-Major in the Military Hospital at Berg-Saint-Vinox, de la Faye began to study surgery with his uncle at the age of about fifteen, with whom however, he remained for only three years. Returning to Paris, he entered the Charité as a pupil of de la Peyronie, but shortly afterward became an interne in the Hôtel-Dieu. In this capacity he labored at the celebrated institution for more than ten years until, in fact, 1730. The year following, he received the degree of master of surgery. Almost immediately thereafter he became assistant-surgeon (aide-

major) in the army, in which position he served throughout the siege of Kehl. Returning to Paris, he entered into private practice, and though he wrote and published much, and invented many useful instruments, he never became again attached to a public institution until, in 1742, he accepted the position of Demonstrator Royal of Operations. In 1751 he was elected Vice-Director of the Royal Academy of Surgery. He retired from practice about 1775. Among his general compositions are: "Observations sur les Becs de Lièvre de Naissance" (Mém. de l'Acad. Roy. de Chir., vol. 1, 1748); "Principes de Chirurgie" (Paris, 1731, and numerous succeeding editions both in Paris and Berlin, as well as several in Strassburg, Venice, Stockholm, and Madrid). He also wrote a number of ophthalmologic articles, the most important of which was "The Reform of Instruments for Cataract Extraction" (Mém. de l'Acad. Royale de Chirurgie, vol. 2). Among his inventions for the use of general practitioners was an apparatus for the protection of shattered limbs, a device which remained in use for many years. Ophthalmologically, he was still more useful. He it was who invented the first cataract knife and the first cystotome, as well as also the name itself (not a very happy one) of the latter instrument. These new instruments and their use were described by de la Faye in "Mémoires de l'Académie Royale de Chirurgie", vol. 2, pp. 563-577. The entire article in the "Mémoires" fills but fourteen pages, yet what an important article it is for the history of ophthalmology! If →Daviel invented cataract-extraction, de la Faye at all events rendered the procedure practical. A more complete understanding of the progress made in cataract surgery by de la Faye can be had by reading in connection with the present article that on Daviel. American Encyclopedia of Ophthalmology, Vol. 7, p. 5173-5175.

Fearn, John (1768-1837) English philosopher who for some years served in the Royal Navy before retiring to devote himself to metaphysical speculation. His writings deal mainly with consciousness, cognition, and sensory perception; several are focused on the physiology of vision. *A rationale of the laws of cerebral vision* London 1830; *An appeal to philosophers, by name, on the demonstration of vision in the brain, and against the attack by Sir David Brewster* London 1837. Albert

Fechner, Otto (1849-?) German physician who wrote: *Ueber die Beziehung von Hirntumoren und Augenerkrankungen*. Halle 1847.

Fedukowicz, Helena B. (1900-1998) American pioneer educator in ocular bacteriology of Russian birth. Born in the Ukraine, she graduated from the Yekaterinoslav Medical Academy, Dnepropetrovsk, Ukraine, in 1921 and joined its faculty. Thereafter, she lectured on ocular infections at the Moscow Eye Hospital and became a professor of ophthalmology at the Kiev Medical School, where she completed a thesis on intraocular melanoma. In 1942, she became a professor of ophthalmology in Vinniza (Ukraine) and married Waclaw Fedukowicz, a geophysicist. During this time, Dr Biantovskaya met Ivan Pavlov and Vladimir Filatov and encountered Nikolai Bukharin, leader of the communist party's right wing, while mountain climbing. When Stalin rose to power, that suspicious chance encounter prompted an investigation. A daughter of an Orthodox priest, she was next accused of poisoning a drinking well with laboratory bacteria. These "awful, miserable years" worsened with the Nazi invasion and closing of her medical school. Fleeing to Poland, the married couple were captured and sent to a work camp in Germany. They managed to escape, but spent 5 years confined at a Bavarian settlement village, awaiting assistance from the International Relief Organization. Ultimately, they were able to emigrate to America. When they arrived in America in 1949, the penniless couple lived in an unfurnished apartment in Brooklyn, NY. Through the Polish Committee, Dr Fedukowicz met an exiled aristocrat, Prince Sapieha, whose philanthropic connections changed her life. Through him, she met George N. Wise MD, at New York University, who was impressed by her clinical expertise and obtained a fellowship for her in the department of ophthalmology studying the eyes of children with tuberculosis. Although she did not have a US medical degree, she was appointed director of ophthalmic bacteriology at New York University's Bellevue Hospital. She insisted that residents bring every patient with a putative ocular infection to her laboratory, where together they would collect, examine, and culture microbial specimens and engage in Socratic quizzing. Dr Fedukowicz's research contributions were largely clinical. She authored more than 25 Russian publications, including articles on ocular rosacea, lysozyme, and pigmented limbal lesions. Her seminal American contribution involved the relationship between the

derelicts of New York's Bowery, near Bellevue Hospital, and the high incidence in that population of *Moraxella* keratoconjunctivitis. Leaving the laboratory, she and her residents would trek to the Bowery, culture material in hand, and examine the local derelicts. The team would enter bars, offering 50 cents to any who would submit to a quick swab. In this way, Dr Fedukowicz was able to trace *Moraxella* to its endemic source, link it to alcoholism and malnutrition, and clarify the organism's taxonomy, morphology, and clinical characteristics. In 1963, her classic text, *External Infections of the Eye. Bacterial, Viral and Mycotic* the first English text on the subject, was published, followed by a second edition in 1978 and a third in 1985. The unanimously applauded volume emphasized clinicomicrobiologic correlation, enhanced by remarkable color plates by Beatrice Grover, and found an instant niche at teaching institutions. Dr Fedukowicz retired to Sarasota, Fla, in 1976. Well into her 90s, she entertained her former students during the week of the Association for Research in Vision and Ophthalmology (ARVO) conference with home-cooked meals and an oral examination in Russian writers and composers. She was elected as an honorary fellow of the American Academy of Ophthalmology and was honored for lifetime scholarly contributions by the Immunology/Microbiology Section of the Association for Research in Vision and Ophthalmology. Arch Ophthal 118,595,2000.JPW

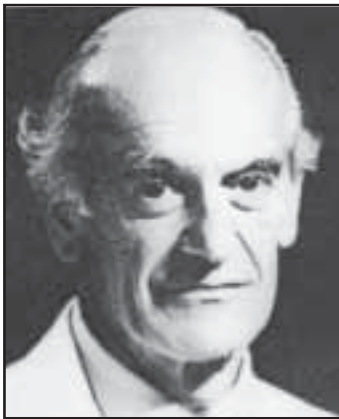
Feingold, Marcus (1871-1925) American ophthalmologist. Feingold was born in the little town of Botoshani, north Rumania. He received his preliminary schooling in an Austrian gymnasium. He then entered the medical department of the University of Vienna from which institution he received the doctoral degree in 1896. One year later he moved to New Orleans with his mother, sister, and brother. The father had preceded them on a business trip, and had decided to make that city his home. There Feingold began at once the practice of general medicine, in 1897. In 1898 he restricted his to the eye, ear, nose and throat and, years later, to the eye alone. In 1898 he founded a clinic of ophthalmology at Touro Infirmary. In 1906 he became professor of ophthalmology at the Tulane University, and was for a number of years, head of the department. He was also chief ophthalmologist at Touro Infirmary; ophthalmologist at the Charity Hospital; chairman of the Medical Staff at Touro; member of the Executive Faculty at Tulane; chairman, A. M. A. Section on Ophthalmology, 1924-25; Fellow of the American College of Surgeons; member, Louisiana Governing Board of the Gorgas Memorial; examiner of the American Board for Ophthalmic Examinations; collaborator on the American Journal of Ophthalmology. He kept up his scholarly pursuits until almost the last moment of his life. He was very fond of languages, and spoke with ease not only his native Rumanian, but also English, German, French, Spanish and Italian. He had a very large, and yet choice, library, 2000 volumes of which were on the subject of ophthalmology alone. This great collection he bequeathed to the medical department of Tulane University. AJO 1926,9:638-639

Feller, Christian Gotthold (1755-1785) German physician born at Lobau, Germany, who received his M.D. at Leipzig in 1780, and became town physician to Bautzen. Among his writings is a treatise on the treatment of eye diseases. Feller witnessed the public demonstrations of cataract extraction performed by Simon in Paris in 1777 and by Casa Amata in Leipzig in 1779. This publication is the only source to describe the procedure of these two surgeons: *De methodis sullusione oculorum curandi, a Casaamata et Simone cultis*. Leipzig 1782. He also wrote: *De Utero Canino Observatio* Leipzig 1782 Albert, JPW.

Fenner, Christopher Smith (1823-1879) American ophthalmologist born in Smithfield, Rhode Island, who received his M.D. at Yale University in 1844, and practiced ophthalmology in New Orleans (1844-1854), Memphis (1854-1872) and Louisville (1872-1879); he lectured on eye diseases at Louisville Medical College. Fenner wrote mainly about physiological optics. *Vision: its optical defects, and the adaptation of spectacles* Philadelphia 1875. He also wrote *Poems of many moods* Boston 1846. Albert, JPW.

Fenton, Frederick George (1904-1982) Australian ophthalmologist. After graduating MB, BS from the University of Melbourne in 1926, Frederick George Fenton became a resident medical officer at St Vincent's Hospital, Melbourne. Deciding to specialise in ophthalmology he became resident medical officer and later, registrar at the Royal

Westminster Ophthalmic Hospital, London. During the four years that he spent at the Westminster Ophthalmic (1934-1938) he also worked at Moorfields Eye Hospital and at Guy's. Returning to Melbourne he served with the RAAF as an ophthalmologist in their recruitment centre during the second world war and retired with the rank of Flight Lieutenant in the Reserve. In 1950 he became senior ophthalmic surgeon at the Royal Victorian Eye and Ear Hospital and on his retirement was appointed consulting surgeon emeritus. While at the hospital he was chairman of the honorary medical staff from 1955 to 1963. He took a special interest in orthoptics - he was chairman of the Orthoptic Board of Australia, 1948-1964, and served as a member of the Board of the Ophthalmic Research Institute of Australia, 1960-1968. He continued to maintain a lively interest in all the latest advances in ophthalmology and had no hesitation in suggesting relatively new procedures and treatments if he thought that they were in the patient's best interests. Fenton earned following titles: MRCS and FRCS 1936; M13,13S Melbourne 1926; DO Oxford 1935; DOMS London 1935; FRACS 1956. LFRCS



Georges Fenwick

Fenwick, George De Lacy (? -1994) New Zealand Ophthalmologist. He graduated from Otago, with MB, ChB, in 1940 and attended Wellington Hospital as a house Surgeon in 1942, joined the RNZAF, in which service he attained the rank of squadron leader and served overseas in the New Hebrides. On demobilization, he returned to work in his old hospital as an eye registrar. In 1946, he went to England and became a FRCS and a FRCSE in 1947. He was appointed to Moorfields Eye Hospital, attaining the position of senior registrar. On returning to Auckland to take up private practice, he was appointed consultant eye surgeon in 1950 in which capacity he continued until retirement in 1982. During this time he pursued early research work of high quality on oxygen-induced retinal disease of the newborn. He was noted for his constant moral integrity and an abiding consistency in following the Hippocratic philosophy. He had abiding interest in education, encouraging the development of full fellowship qualifications in New Zealand. He was especially active in the Asia-Pacific Region and served as the President of the 4th Congress of the Asia-Pacific Academy of Ophthalmology and subsequently served as the Executive Member of the Academy until 1989. He was appointed to the Fellowship of the Royal Australian College of Ophthalmology (1971) and elected to be the President of the Ophthalmological Society of New Zealand (1976). (Ophthalmology awakens in Asia - 40 years of Asia-Pacific Ophthalmology, Lim, K.H. & Lim Arthur S.M. Singapore National Eye Centre 1999) (SM)

Féré, Charles Samson, 1852-1907) French physician, born in Auffay, Normandy, who received his M.D. in Paris in 1882. Attracted to neuropathology, and especially psychopathology, by Charcot, Féré wrote extensively on these subjects. He became 1887 medical director of the Bicetre mental hospital near Paris. He wrote: *Contribution à l'étude des troubles fonctionnels de la vision par lésions cérébrales (amblyopie croisée & hémianopsie)*. Paris 1882; *Sensation et Mouvement* Paris 1887, 2nd ed.1900; *Le Magnétisme Animal* Paris 1890 ; *Travail et Plaisir* 1904 ; *L'instinct sexuel* Paris 1899. Albert.JPW.

Fergus, Andrew Freeland (1857-1932) British ophthalmologist. Fergus graduated in Medicine, B.M., C.M., at the University of Glasgow in 1881 ; and received from that Institution the degrees of M.D., in 1891, and LL.D. in 1921. After services as hospital resident, he studied ophthalmology in Paris with Edouard Meyer, and with Snellen and Donders at Utrecht. He translated, from the third French Edition, with notes from the fourth German Edition, the "*Diseases of the Eye*" by Professor Edouard Meyer of Paris. This translation was published in England and America, in 1887. He became Assistant Surgeon to the Glasgow Eye Infirmary, and Surgeon the Royal Infirmary of Glasgow; was Lecturer on Ophthalmology, and on Physics in Anderson College, and Examiner in Ophthalmology to the Royal Faculty of Physicians and Surgeons, of which he later was President. He was Ophthalmic Surgeon for West Scotland, under the Blind Persons Act, and became President of the Scottish National Institutions and Societies for the Blind. He became a member of the Ophthalmological Society of the United Kingdom, in 1889. In connection with his early papers and his translation of Meyer's book he used the name - Freeland Fergus; but after the death of his father, prefixed the initial A. His more important papers were published in the *Ophthalmological Society Transactions*, the *Ophthalmic Review*, the *Lancet*, the *British Medical Journal* and *The Ophthalmoscope*. He

published a small manual on *Ophthalmic Optics*. He showed a particular interest in diplopia and the operative treatment of strabismus, miners' nystagmus, workmen's compensation, and sclerocorneal trephining. In 1906 he visited America, to attend the meeting of the British Medical Association, held at Toronto, at which Dr. A. R. Reeves was President; and contributed three papers to the Section on Ophthalmology, presided over by R. Marcus Gunn. His writings exhibited his interest in the practical applications of ophthalmology, and were always specimens of the best English. It was characteristic of him, that he was most highly esteemed by those who knew him longest and best.

Ferguson, William John Wellwood (1896-1972) British ophthalmologist. Ferguson left school in Edinburgh to study medicine at the University of Glasgow but the first world war interrupted his studies and he rendered distinguished service in the campaign in France with the R.A.S.C. for which he was mentioned in dispatches. Returning to Glasgow he graduated in 1920 and after house appointments at the Glasgow Royal infirmary became an assistant surgeon at the Glasgow Eye Infirmary; in 1927 he was appointed consulting surgeon at the Royal infirmary, Sheffield, and lecturer in ophthalmology in the university where he spent the remainder of his working life. He earned his reputation for his work on dark adaptation and illumination. His interest in this was excited by his researches on the cause of nystagmus in miners, for whom he conducted a special rehabilitation clinic in Sheffield until his retirement. At one time this was a common condition in the coalfields of Yorkshire, and to a considerable extent, because of his work this distressing complaint was practically eliminated by revolutionizing the illumination at the coal-face. This led to his studies on dark adaptation for the Medical Research Council during the second world war. Eventually he became chairman of the MRC Committee on Lighting and Vision which established standards for hospital lighting, and was a prominent member of the National Illumination Committee and the Commission Internationale de l'Éclairage. During this time he became President of the Illuminating Engineering Society in 1952. All these activities were maintained alongside a busy life in hospital and private practice and a deep personal concern for his many friends and patients. *BJO* 57:73 (1973)

Fernandez, Dunstan Sixtus (1941-) Malaysian Ophthalmologist, Chairman of the Ophthalmological Society of the Malaysian Medical Association. He graduated from Madras Medical College, India, in 1966 and returned home to serve at the General Hospital in Kuala Lumpur. He then pursued postgraduate training in Ophthalmology at the Royal College of Surgeons of Edinburgh and Ireland and in completing the study he was granted FRCS. On his return, he served as the first Ophthalmologist to the Armed Forces Hospital in Kuala Lumpur and Malacca. He joined the Ophthalmological Society in 1975, and served as the Secretary Treasurer (1977-1980), Committee Member (1981-1982) and the Chairman (1989-1991). He served as Organizing Committee Member of the 11th Congress of the Asia-Pacific Academy of Ophthalmology in 1987. He completed the Army duty and retired in 1980 and is in private practice. (SM)

Fernandez, Juan Santos (1847-1922) Cuban ophthalmologist. Founder of ophthalmology in Cuba, born at Alacranes, Matanzas Province, Cuba. Having received at the Jesuit College, Havana, the degree of B.S., he was sent to Spain at the age of 18, in order to study medicine at the University of Madrid. On this trip he was accompanied by a younger brother and by two other youths. These four students lived together in a large apartment in Madrid, and tales are still told of the merry pranks indulged in by the younger Fernandez and the two anonymous youths. The subject of this sketch, however, though he enjoyed to the full the practical jokes of his companions, never took part in them, and, in fact guided and restrained his comrades almost like a father. His quiet, sober disposition had, in fact, been characteristic of his childhood, and it remained a striking feature of his personality until his death. Having obtained the degree of M.D., Fernandez studied ophthalmology first at Madrid under Jugo→Delgado. Later he went to Paris, where he became chief of clinic to Galezowski. Returning to Spain, he established an eye clinic near Toledo, and this he conducted for a number of years. In 1875 he went back to Cuba, where he was, it is said, the first on that island to practice ophthalmology exclusively. Since that time he has always been in the front rank of medical and sanitary advance. In fact there has not been any single manifestation of scientific progress in Cuba to which Dr. Fernandez's name has not been attached. In 1875 he founded the "*Crónica*

Medico-Quirúrgica de la Habana," a medical monthly. In 1900, with Dr. Menacho of Barcelona, Spain, he founded the "*Archivos de Oftalmología Hispano Americanos*" In 1887 Dr. Fernandez founded the *Laboratorio Anti-ribico*, the first to be opened in America, and second only in the world to the Pasteur Institute of Paris. Many thousands of persons were thus saved from death by hydrophobia. Years before, he had bought and given to the Mercedes Hospital the first sterilization plant in Cuba. He was a member of the Havana Academy of Sciences, its president since 1900, a member of the Society for Clinical Studies, of the Cuban Anthropological Society, of the French Ophthalmological Association, of the Société d'ophtalmologie de Paris, of the Mexican Academy of Medicine and of the American Academy of Ophthalmology and Oto-Laryngology. He published over one thousand papers in scientific journals in Europe and North America and authored *Higiene de la Vista* Habana 1879. He had numerous pupils among them his nephew F.M. →Fernandez, founder of the *Revista Cubana de Oftalmología* AJO 6:433-434.JPW

Ferree, C.E. (1877-1943) American psychologist of importance to ophthalmology. Ferree was born in Sydney, Ohio. He took the B.A and M.A. from the Ohio Wesleyan University in 1902 and became *Sage* fellow in psychology at Cornell University. In 1909 he was awarded the Ph.D. at Cornell and 30 years later his old University gave him the D.Sc. For more than 35 years he was at work (with Rand) on the sensory functions, and on the evaluation of methods for their accurate control, recording and measurement. Ferree, with Rand, worked also on perimetry, the testing of light sense, multiple exposure tachistoscope, visual acuity under low illumination, flicker, and industrial and hygienic illumination. Ferree was at one time professor of psychology and director of the psychologic laboratories at Bryn Mawr College and professor of physiological optics and director of the physiological optics research laboratory at the Wilmer Eye Institute. He wrote round 250 papers. BJO 1944; 28:155-156.

Ferree, John W. (1904-1975) American ophthalmologist, native of Indiana. Dr. Ferree attended the University of Pennsylvania, received his M.D, from Indiana University, and a Master's in Public Health from Johns Hopkins University. He was named Indiana state health commissioner in 1940, and served as a commander in the Navy medical department in World War II. Preventive medicine was a guiding precept throughout his career. From 1946 to 1947, he was director of education of the American Social Hygiene Association, then associate director of the National Health Council from 1947 to 1948, and associate medical director of the American Heart Association in charge of community service and educational activities for eight years. He was named executive director of the National Society for the Prevention of Blindness in 1959 and held the post until his retirement ten years later. During Dr. Ferree's tenure as executive director, outstanding progress was achieved through his professional competence, strong leadership, wealth of knowledge about public health programs and medical research, his high standards of performance, and most importantly his rare understanding of human relationships. A founder of the American Academy of Preventive Medicine, he was ahead of his time in his commitment to improving the health-care system through strong emphasis on preventive medicine. During his professional career, he was secretary-general for the Western Hemisphere, International Association for the Prevention of Blindness; co-chairman of the Committee on Prevention of Blindness of the Pan American Association of Ophthalmology; member, Committee on Continuing Professional Education Programs of Voluntary Health Agencies of the Council on Voluntary Health Agencies, American Medical Association; member, National Advisory Eye Council of the National Institutes of Health; member of the Board of Trustees of the Illuminating Engineering Research Institute. Following retirement, he served as a member of the board of director of the National Accreditation Council for Agencies Serving the Blind and Visually Handicapped and of the American Foundation of Overseas Blind. Dr. Ferree was a fellow and life member of the American Public Health Association, and a diplomate of the American Board of Preventive Medicine. He was a member of the Medical Society of New York State and of the Medical Society of Westchester County, New York, and a fellow of the American College of Physicians and the American Medical Association. AJO 1976,81:111

Ferrein, Antoine (1692-?) French surgeon. Born in Frespech, Argenois, he studied at first theology, mathematics and law with the Jesuits at Agen. His attention having been turned

toward medicine by Borrelli's "*De Motu Animalium*," he betook himself to Montpellier, where he received the Bachelor's degree in 1716, and, a little later, the Doctor's degree. He served for a time as army physician in the French campaign in Italy, then, in 1741 (after many vicissitudes) he became anatomist at the Academy of Sciences. Next year he was made professor of medicine and surgery at the Royal College in Paris. Ferrein composed a handbook, or treatise, on practical surgery and medicine, and a number of articles on the anatomy and therapy of the tear-apparatus. Ferrein claimed that he was the first to propose and practise laceration of the posterior inferior quadrant of the lens-capsule as a preliminary to reclination of the lens. The opening in the capsule Ferrein called "*the button-hole*." History has awarded the palm for priority in this procedure to J.L.Petit who, at all events, was the first to give information concerning the matter to the public. American Encyclopedia of Ophthalmology, Vol. 7, p. 5180-5181.

Ferrer, Haracio (1876-1960) Cuban ophthalmologist, soldier of Cuban independence, civic leader, and beloved, gentle pater familiae. Born in Union de Reyes in the province of Matanzas, Cuba, his family traced its ancestry in Spain to the 12th century, with physicians in its roster of notables since the 17th century. Both grandfathers were doctors. The death of his father, Dr. Benito Jose Ferrer y Toledo, when Horacio was five years of age, left his mother, the former Dolores Diaz Galvez, to care for his older brother, Virgilio, and himself. His studies at Matanzas were interrupted by a period of military service in the Cuban war for independence. The youthful Horacio and his brother joined the forces of General Maximo Gomez in Camaguey in July, 1895. On August 13, 1895, Horacio Ferrer was seriously wounded in the face in the assault on the fort of Baga. Taken to the Bahamas and then to New York for reparative surgery, he recovered and returned to Cuba to take part in major engagements of the war. After the signing of the peace treaty at Washington on August 12, 1898, the brothers Ferrer returned to civil life. After graduating in medicine from the University of Havana in 1901, Ferrer served as Military Public Health Officer, doing general surgery until 1910, when he devoted himself to ophthalmology. Married to Tasita Paisan, he left five daughters, Olga, Bertha, Martha, Tasita, and Piedad. Dr. Olga Ferrer Sklar has followed in the footsteps of her famous father and has continued his ophthalmic practice. Ferrer received many decorations and honors from a grateful government, as well as medals from the Cuban and Spanish Red Cross and the Republic of Mexico. Before specializing in ophthalmology, he published valuable studies on the "*Ophthalmic reaction of Calmette*," on the diet of Cuban workers, and statistics of typhoid vaccinations in Cuba. He wrote biographical on Dr. Carlos Finley, Osvaldo Cruz Lopez. His interest in the history of ophthalmology was life long. In 1924, on the occasion of his admission to the Academy of Sciences of Havana, he gave a historical paper dealing with the contribution of Cuban ophthalmologists to the progress of ophthalmology. His book, *Con el Rifle al hombro* is an autobiographical record. A busy clinician and ophthalmic surgeon, he also made many valuable contributions to the literature. His first paper in the field of ophthalmology dealt with the visual acuity of members of the regular army (1908). In 1912, Dr. Ferrer recorded the results of his ocular examination of 9,000 children. He reported, in 1932, the results in the first four cases of retinal detachment treated surgically in Cuba. In 1939, he presented a new instrument for cataract extraction by suction. His numerous writings included the subjects of optic atrophy after pituitary tumor, cataract, dacryocystitis, proliferating retinopathy, therapy of ocular tuberculosis, aniridia, glaucoma, and the use of sulfa drugs and penicillin in ophthalmology. Ferrer was one of the founders of the Pan-American Association of Ophthalmology, and he attended its first meeting in Cleveland on October 11 and 12, 1940. He was a member of the Mexican and French Ophthalmological Societies. The Instituto Horacio Ferrer of Havana, Cuba, was established in honor of the country's leading ophthalmologist. The first publication of this organization, printed early in 1960, contains many of the papers of Dr. Ferrer and much biographical material.

Ferrer, Henry (1850-1890) American ophthalmologist from California. Born in Santiago de Cuba, he obtained his general education at Bordeaux, France, then studied medicine at Heidelberg, receiving his degree in 1872. After a considerable graduate period, at London, Paris, and Vienna, Ferrer became assistant to Professor Soelberg → Wells, at London. In 1875 he settled in San Francisco, Cal., where he soon had a large practice. Among his most important writings are: "*Abscess of the Middle Ear and Mastoid Cells*" (1877);

"Report of a Case of Disease of the Mastoid Process, with Remarks" (Knapp's Archives of Otolaryngology, Vol.XVII and XVIII).American Encyclopedia of Ophthalmology,Vol.7,p.5181.

Fick, Adolf Eugen (1852-?) German physician who wrote: *Über microorganismen im conjunctival sack*. Wiesbaden 1887; *Lehrbuch der Augenheilkunde* Leipzig 1894; *Diseases of the eye and ophthalmoscopy* Philadelphia 1896-1900. Albert

Fielding, George Hunsley (1801-1871) English anatomist, who paid considerable attention to ophthalmology. Born in Hull, England, the son of a physician, he became in 1824 a Member of the Royal College of Surgeons of England, and practised for a number of years in his native town. He then proceeded to Erlangen, Germany, where he received the degree of Doctor in Medicine in 1836. Returning to England, Fielding settled in Tunbridge, Kent, where he practised for many years. In 1843 he was made a Fellow of the Royal Society. Fielding wrote but two ophthalmologic articles, as follows: 1. On a New Membrane in the Eye, etc.(London, 1832.) 2. On the Influence of Color on the Effect of Light, Heat and Odors.American Encyclopedia of Ophthalmology,Vol.7,p.5189

Filatov, Vladimir Petrovich (1875-1956) Russian ophthalmologist, born in Saransk in the Ukraine and who graduated in medicine in Moscow in 1897 where he held his first hospital appointments. In 1908 he went to Odessa where he eventually became the Director of the Ophthalmological Institute; here he worked until the time of his death, the latter part of his life being spent as Director of the Ukrainian Experimental Institute for Eye Diseases and tissue Therapy. In addition to his ophthalmological work, which embraced many aspects of ophthalmology, he took a considerable interest in general medicine and was also a deputy of the Ukrainian Supreme Soviet. He was undoubtedly one of the great ophthalmologists of the 20th century, and it was regrettable the fact that closer contact with him and a more personal appreciation of his ideas have been impossible because of the "cold war". In ophthalmology his greatest contribution was in the biology of cortical grafts and the perfecting of the surgical techniques of keratoplasty. It will be remembered that von Hippel of Göttingen was the pioneer who, towards the end of the last century, made this operation a clinical possibility. Filatov shares with Elschnig of Prague the distinction of evolving the technique to make the operation a practical surgical procedure. As early as 1913 he was experimenting on the feasibility of total corneal grafting, transplanting the entire cornea with a margin of sclera and conjunctiva. This drastic procedure, of course, gives no clinical results of value, but the attempt illustrates his courage as a surgical enthusiast. There are two big advances with which his name is associated in connexion with corneal grafts. The first of these concerns the use of cadaver eyes. Some time previously →Magitot of Paris had shown that a graft could be preserved for a period varying from one to two weeks at a low temperature in haemolysed blood. With this as basis Filatov went further and popularised the use of grafts removed from cadaver eyes which, as early as 1934, he was using 41 hours after death. This, of course, opened up a vast source of graft material and is universally practised to-day with great benefit. He wrote, translated into German by A. Obal and edited by Maxim Zetkin: *Optische Keratoplastik und Gewebepathologie* VEB Verlag, Berlin 1954. BJO 41, 63-64; Mannis/*Corneal transplantation-A History in Profiles* Ostend 1999. JPW

Filius-Mesue see Abu Zakarija Juhanna b. Masawaih

Fincham Edgar Frank (1893-1963) British, specialist in physiological optics. The youngest of three brothers, he was educated at Hornsey County School which he left in 1909, when only 16 years of age, to take a position as laboratory assistant at the Northampton Polytechnic. After a short time there he was employed at Messrs. Newton and Co. and also at Messrs. Carpenter and Westley, and obtained the Diploma of the Worshipful Company of Spectacle Makers in 1914. In 1915 he volunteered for the R.A.M.C. and after training in the Pathology Laboratory at Millbank was drafted to Macedonia where he remained until 1919. Although only a young man, his keen powers of observation and great experimental skill were already evident and during this period he perfected his histological techniques with the human retina. Some of his photomicrographs (Photomicrographs of Sections of the Human Eye, 1925) have never been bettered. He also detected and photographed malarial parasites in the blood vessels of the human retina. For his work in Macedonia he was awarded the Meritorious Service Medal. At the end of the 1914-18 war he was appointed Lecturer in the Applied Optics Department of the

Northampton Polytechnic, where he worked and lectured until 1950. In spite of his heavy teaching responsibilities, this period was a most fruitful one, producing a series of papers on the mechanism of accommodation in the human eye that culminated with his classic monograph published by the British Journal of Ophthalmology as Supplement No. 8 in 1937. This year saw also the commercial production of his Coincidence Optometer, an instrument in widespread use for the precise and objective measurement of the refractive state of the eye. In 1950 he was invited to start a Research Department in Ophthalmic Optics at the Institute of Ophthalmology. Here, with a much lighter burden teaching, his research was given full rein, and the period until he left to return to his old love, the Northampton Polytechnic, in 1961, produced a series of important papers on the factors controlling ocular accommodation, the stimulus to the accommodation reflex, and the reciprocal actions of accommodation and convergence. During his life Edgar Fincham received many honours. He was Commander of the Order of St. John, the only honorary recipient of the Higher Diploma of the Spectacle Makers' Company, and a Fellow of the Royal Photographic Society. He was the first Wiseman Memorial Lecturer; he also gave the Ettles and Owen Aves Lectures, and was awarded the Ernest Aves Medal by the London Refraction Hospital "for work of outstanding merit in ophthalmic optics". *Brit.J.Ophthal*, 1964, 48:120

Finkelstein, Daniel (1940-) American Ophthalmologist, with an university education at Harvard College and a medical education at the University of Pennsylvania, followed by one year in neurophysiology at the Free University of Berlin and two years of neurophysiology at the National Institutes of Health. Residency and Chief Residency in ophthalmology was at the Wilmer Eye Institute at the Johns Hopkins University School of Medicine. Dr. Finkelstein then joined the Retinal Vascular Centre of the Wilmer Eye Institute under the direction of Dr. Arnall Patz and has continued there until the present. He has been Professor of Ophthalmology at the Wilmer Eye Institute since 1993 to the present. Dr. Finkelstein has also had an interest in medical ethics and was chairperson of the Johns Hopkins Hospital Medical Ethics Committee from 1997 to 1999 and has a joint appointment in the Johns Hopkins University Bioethics Institute. He is an Officer of the Macula Society and has been awarded its Arnall Patz Medal in 1995. He has published many original papers in the field of retinal diseases and medical ethics, and some examples of recent publications are "Finkelstein, D.: *Ischemic macular edema: Recognition and favorable natural history in branch vein occlusion*. *Arch. Ophthalmol.*, 110:1427-1434, 1992", "Finkelstein, D., Smith, M.K., Faden, R.: *Informed consent and medical ethics*. *Arch. Ophthalmol.*, 111:324-326, 1993", "Holroyd, S., Rabins, P.V., Finkelstein, D., Lavrishia, M.: *Visual hallucinations in patients from an ophthalmology clinic and medical clinic population*. *J. Nerv. & Mental Dis.*, 182: 273-276, 1994", "*The Central Vein Occlusion Study Group M Report: Evaluation of grid pattern photocoagulation for macular edema in central vein occlusion*. *Ophthalmol.*, 102: 1425-1433, 1995", "*The Central Vein Occlusion Study Group N Report: A randomized clinical trial of early panretinal photocoagulation for ischemic central vein occlusion*. *Ophthalmol.*, 102: 1434-1444, 1995", "Finkelstein, D., Clarkson, J.G., Hillis, A.: *Branch and central vein occlusion*. *Focal Points. Am. Acad. Ophthalmol.*, vol. XV, 1-13, 1997", "Finkelstein, D., Wu, A.W., Holtzman, N.A., Smith, M.E.: *When a physician harms a patient by a medical error: Ethical, legal, and risk-management considerations*. *The J. of Clin. Ethics*, 8: 330-335, 1997", "Fekrat, S., Goldberg, M.F., Finkelstein, D.: *Laser-induced chorioretinal venous anastomosis for nonischemic central or branch retinal vein occlusion*. *Arch. Ophthalmol.*, 116: 43-52, 1998" and "Agard, E., Finkelstein, D., Wallach, E.: *Cultural diversity and informed consent*. *The J. Clin. Ethics*, 9:173-176, 1998". (Daniel Finkelstein, M.D., The Wilmer Institute, The Johns Hopkins Hospital, Baltimore, MD 21287-9227, U.S.A.) (SM)

Finsen, Niels R. (1861-1904) Danish physician, *discoverer* of the curative power of the chemical rays of light (sunlight, electric light, Röntgen rays, etc.) and founder of phototherapy, was born in the Faroe Isles, and taught anatomy at the University of Copenhagen. He has shown that the effects of light upon biological processes are due almost exclusively to the chemical, or violet and ultra-violet, rays of the spectrum. The Finsen lamp, which was employed to destroy certain pathogenic organisms, as in lupus, favus, ring-worm, and alopecia areata, concentrates the rays of an electric arc lamp by

means of a lens composed of one flat and one curved disc, between which is interposed a solution of copper sulphate. In 1903 he was awarded the *Nobel* prize for medicine.

Fischer, Friedrich P. (1897-1949) German ophthalmologist. Fischer's interest lay mainly in the basic sciences, particularly in physical chemistry. Much of his earlier work was summarised in his remarkable contribution on The Water Content of the Eye, published in *Documenta Ophthalmologica* in 1938. The bearing of this highly abstruse work on glaucoma and on retinal detachment is obvious, and though Fischer could give no final answer, the work he has done is a permanent contribution to an exceptionally difficult subject. An equally important contribution bearing on the same clinical problems is represented by his paper on *The Mechanical Properties of the Eye and its Tissues*. His investigations on mycellia have a direct bearing on detachment, whilst his studies on elasticity and rigidity may ultimately help to clarify the problems of glaucoma. Fischer's professional career was twice interrupted by the emergence of the Nazi horror. After 1933 there was no room for Fischer and his like in a Germany where all civilised values had collapsed. Through the wisdom of Professor →Weve, Fischer found a congenial home at the Clinic at Utrecht. When he went to Utrecht at the age of 36 he took with him an international reputation in his own sphere based on over 40 publications, and his subsequent industry brought lustre even to the Utrecht Clinic with its great traditions. The occupation of Holland by the Nazis in 1940 interrupted Fischer's career for a full five years. With the help of the highly organised Dutch resistance movement, and several false passports, he managed to elude the Gestapo, learning in the process how to trap rabbits in the woods, and to subsist on stolen chickens and stream-water. In the four years that were left to him at the end of the war he returned with renewed enthusiasm to his single-hearted devotion to research. A man of wide culture, he contributed to the study of the history of ophthalmology, as shown by his excellent paper on Goethe. He became one of the editors, and the leading spirit, of the revived *Documenta Ophthalmologica* and of the ophthalmic volumes in *Tabulae Biologicae*. In his work he was greatly assisted by his wife and his colleague, Dr. H. von Bunau. *BJO* 1948,33:591-592

Fischer, Johann Friedrich Christoph (1772-1849) German physician, surgeon and ophthalmologist, especially celebrated, as an operator for cataract. Born in Erfurt, he became at first an apothecary, in which capacity he lived for a time in Wetzlar, Mainz, Blankenhain, and Erfurt. Turning his attention to medicine, he studied at Jena and Erfurt, at the latter institution receiving his degree. After a considerable period of military service he studied again, at Vienna, and, settling as a physician, but chiefly as an ophthalmologist, in his native city, Erfurt, he founded there, in connection with a minister, an "Institution for the Blind and for Eye Patients." Fischer's most important (or only) ophthalmologic writing was "*Einige Bemerkungen über das Verhältniss der Extraction des Grauen Staares zur Keratomyxis hinsichtlich der Gefährlichkeit*" (in: Langenbeck's *Neue Bibliothek*, 1819.)

Fischer, Johann Nepomuk (1777-1847) born at Rumburg, Bohemia, Fischer received his M.D. at Vienna in 1806 and became professor of ophthalmology at the University of Prague. He was the first director of the Prague Ophthalmic Institute, established in 1814, and is considered the founder of modern ophthalmology in Bohemia. He wrote, according to Hirschberg, the first systematic textbook of ophthalmology based entirely on cases observed by the author: *Klinischer Unterricht in der Augenheilkunde*. Prag 1832 and *Abbildungen des Thraenenschlauches und einer merkwürdigen Metamorphose der Regenbogenhaut. Zu dem klinischen Unterrichte in der Augenheilkunde von Professor Fischer*. Prag, Borrosch & Andre, 1832. Fischer also was the first, since the old Greek and Arabian authors, to present a satisfactory description of trachoma in a textbook: *Lehrbuch der gesammten Entzündungen und organischen Krankheiten des menschlichen Auges ...* Prag 1846. He **cannot** have written: *Theorie des Schielens* Ingolstadt 1781 and *Beweis dass das Glockenläuten bey Gewittern mehr schädlich als nützlich ist..etc.* München (2nd edition München 1784). One, respectively both titles are listed in Albert/Source Book and in British Museum Catalogue, but in 1781 and in 1784 Fischer was only 4, respectively 7 years old! [JPW] Albert, JPW

Fischer, Waldemar Edward (1877-1915) American ophthalmologist who died young. He was born in St. Louis, MO., son of Dr. Joseph A. Fischer, a dentist. His medical degree was received at the Marion Sims College of Medicine, St. Louis, in 1898. He then took a

special course in ophthalmology at Berlin, Germany, and Vienna, Austria, from 1899 till 1901. Returning to St. Louis, Fischer became an assistant in the eye clinic of the Marion Sims College, and at the American Medical College, the Medical Department of the National University. He was also ophthalmic surgeon at the Missouri Baptist Sanitarium. When only thirty-seven years of age, Dr. Fischer, being seriously ill from overwork, committed suicide, Jan. 9, 1915. American Encyclopedia of Ophthalmology, Vol.7, p.5206.

Fisher, John Herbert (1867-1933) British ophthalmologist, born at Hillingdon, Middlesex, on 1 October 1867, the second child and second son of Ben James Fisher, M.I.C.E. and Sarah Yeale, his wife. Soon after his birth the family moved into Devonshire, and Fisher was educated at Exeter School, where he gained an exhibition and was a scholar. In 1887 he entered St Thomas's Hospital as Tite scholar and became afterwards Musgrave scholar and prizeman, so that in later life he used to say that it had cost his father nothing to educate him. He twice obtained the first College prize as the head of his year, and at the end of the curriculum he won the Treasurer's gold medal which was looked upon as the blue ribbon of the school. At London University he graduated M.B. in 1894, being placed in the first-class honours list at the M.D. examination, and winning the gold medal and scholarship in surgery at the B.S. He was equally good at football, playing forward at *rugger* for his county as well as for the Hospital. At St Thomas's Hospital he filled the posts of obstetric house physician, house surgeon, clinical assistant in the aural department, and ophthalmic house surgeon to Edward Nettleship. In 1895 he was appointed ophthalmic surgeon to out-patients in the Hospital on the resignation of Nettleship, and in 1915 he became surgeon and lecturer on ophthalmic surgery, positions he resigned in 1924. In the medical school of St Thomas's Hospital he was demonstrator of anatomy 1895-1903, dean 1904 to 1907, chairman of the committee of medical and surgical officers, president of the Medical and Physical Society, and president of the Rugby Football Club. At the Royal London Ophthalmic Hospital, Moorfields, after acting as clinical assistant to Edward Nettleship and William Lang, he was appointed surgeon in 1900. He resigned in 1927 on reaching the age limit, and was then invited to join the Committee of Management. At the Ophthalmological Society of the United Kingdom he was elected a member in 1915, was secretary 1907-10, vice-president 1918-20, and president 1920-22. He delivered a remarkable presidential address on "*The personal equation*". At the Royal College of Surgeons he lectured in 1930 as Hunterian professor of surgery and pathology upon "*Perforating wounds of the eyeball, and the localization of foreign bodies in the eye by X-ray examination*", and in the same year he delivered the Bradshaw lecture, when he took as his subject "*Ocular movements and judgements*". He served as a Member of Council from 1923 to 1931. During the war he was gazetted captain R.A.M.C.(T.) on 18 August 1915, and served with the 5th London General Hospital, a unit which was stationed at St Thomas's Hospital. He retired from practice in 1928 but retained the posts of ophthalmic referee to the Civil Service Commission and to the Ministry of Pensions. For some years he had charge of one of the trachoma schools in London, and was a member of the Prevention of Blindness Committee and of the editorial committee of the British Journal of Ophthalmology. He had also been president of the Council of British Ophthalmologists. He was a fluent and decisive lecturer, and an impressive clinical teacher. As a chairman or member of committee he was almost ideal, for he was firm and judicial, quick to sift the essential from the non-essential, and well able to express his judgement lucidly and on occasion emphatically. As an ophthalmic surgeon he was noted for his exceptional knowledge of all the structures appertaining to the eye. In any discussion that might arise upon some obscure case he was able to give an immediate and detailed account of the anatomical bearings of the symptoms. His love of anatomy was shown in his chief publication, his textbook of ophthalmological anatomy. His main publication is: *Ophthalmological Anatomy with some illustrative cases*. London, 1904. A detailed list of his publications can be found in *British Journal of Ophthalmology*, 1933, 17:381. He earned following titles and degrees: M.R.C.S. 12 November 1891; F.R.C.S. 8 June 1893; M.B., B.S. London 1894; L.R.C.P. 1891. The Times, 5 April 1933, p. 16c; Lancet, 1933, 1:831, with portrait; Brit. med. J. 1933, 1: 679, with portrait; Med. Pr. 1933, 186:301; St Thos. Hosp. Gaz. 1933,34:65, with portrait; Brit. J. Ophthal. 1933, 17:377, with portrait. LFRCS 1930-1951:269

Fisher, Ronald Frank (? - 1994) British ophthalmologist. Fisher received his medical education at the Westminster Hospital Medical School and qualified both with the London MB BS and the conjoint diploma in 1952. Deciding to specialise in ophthalmology after qualifying, he held junior appointments at the Westminster Hospital and at Moorfields. He won the Research Prize and the Treacher Collins Prize of the Royal Society of Medicine and his distinguished academic career took him to be consultant surgeon at the Western Ophthalmic Hospital and to the Professorship of Biophysics and Ophthalmology at St Mary's Hospital and the Institute of Ophthalmology. He wrote a number of papers on cataract and the properties of basement membranes. Fisher earned following titles: MRCS 1952; FRCS 1963; MB BS London 1952; MD 1965; PhD 1970; DSc 1978; LRCP 1952; DO 1957.

Fitzgerald J. Robert (1910-1973) American ophthalmologist, chairman of the Department of Ophthalmology, at the Stritch School of Medicine, Loyola University, Maywood, Illinois, from 1954 to 1971. Fitzgerald served as state supervising ophthalmologist, and for many years as a director of the Illinois Society for the Prevention of Blindness and most recently as vice-president. He served as secretary-treasurer of the Chicago Ophthalmological Society for four years, during his term as president of the Society, he initiated an annual Clinical Conference. *AJO* 1973,76:602

FitzGerald, Edward (1842-1916) Irish ophthalmologist born in Dublin. He was educated at Trinity College where he took his B.A. degree in 1864 and the M.B. and M.Ch. in 1868 followed by the M.D. 1873. In 1885 he took the M.R.C.P. and the following year the F.R.C.P. Ireland. FitzGerald was appointed ophthalmic and aural surgeon to the House of Industry Hospitals and became later surgeon to the National Eye and Ear Infirmary. On amalgamation of the latter with St. Mark's Ophthalmic Hospital to form the Royal Victoria Eye and Ear Hospital he retired from active participation in hospital work. FitzGerald was lecturer on ophthalmic surgery at the Carmichael School of Medicine and Professor at the Royal College of Surgeons, Ireland in 1912. *The Ophthalmoscope*, 1916, p.390-391.

Flajani, Joseph (1741-1808) Italian surgeon and ophthalmologist especially famous for his work in connection with the artificial pupil and the treatment of dacryocystitis. He is sometimes said to have been the discoverer of exophthalmic goitre, which affection, therefore, is now and then designated by the term, "*Flajani's disease*." Flajani, however, cannot, in any proper sense, be said to have discovered the malady in question, which is far more properly known as "*Graves' disease*" and "*Basedow's disease*." All that Flajani did was to describe in Vol. III, at p. 270, of his "*Collezione d'Osservazioni e Riflessioni di Chirurgia*," (1802) three cases of bronchocele accompanied (among other symptoms) by palpitation of the heart. He seems to have had no clear idea either that the goitre caused the palpitation, or that both the palpitation and the goitre might have been engendered by some common cause. Flajani was born near Ascoli, received the degree of Doctor of Philosophy and Medicine at Rome, settled in that city, there became surgeon at the Hospital San Spirito, as well as body physician to Pope Pius VI. Hirschberg gives the year of Flajani's death as 1802, probably as mistake, in as much as both Hirsch and Lippincott's "*Biographical Dictionary*" agree on 1808. Probably Hirschberg, when he wrote "1802," had still in mind the date of Flajani's book. *American Encyclopedia of Ophthalmology*, Vol. 7, p.5221.

Flarer, Francesco (1791-1850) Italian ophthalmologist, especially remembered as the inventor of Flarer's operation for trichiasis. The dates of his birth and death are not procurable. He became, however, professor of ophthalmology at Pavia in 1819, as well as director of the Pavian Ophthalmic Hospital. His best known writing is "*Riflessioni sulla Trichiasi suite Trichiasi e sull'Entropio Acuto, Particolare Riguardo al Metodi di Jaeger e di Vacci*" (Milano 1828). He also wrote: *In nuperam myopiae aetiologiam dynamicam animadversio inauguralis* [respondent] Al. Gambarini. Mediolani: ex typographia Joannis Bernardoni, 1827 and *De iritide ejusque speciebus, earumque curatione* Ticini Regii 1841. *American Encyclopedia of Ophthalmology*, Vol. 7, p.522. Albert

Fleet see also Van Fleet, Frank

Fleischer, Bruno (1874-?) German ophthalmologist. University lecturer Tübingen 1904, professor 1909, Professor at Erlangen University 1920, emeritus 1948. He

specialized in ophthalmology and genetics. Contributions found in Graefe-Saemisch *Handbuch der ges. Augenheilkunde* 1922; *Handbuch der Augenheilkunde und Erbkrankheiten*. Articles in *Deutsche Zeitschrift für Nervenheilkunde*, 1912; *Klinische Monatsblätter f. Augenheilkunde* 1914; *Graefe's Archiv f. Ophthalmologie* 1918; *Archiv f. Rassen und Gesellschaftsbiologie* 1920; *Ergebnisse der allg. Pathologie und pathol. Anatomie*. Kürschners Gelehrten- Kalender 1966, p.553.

Fleischl von Marxow, Ernst (1846-1891) German physiologist, pathologist and physiologic optician. Born in Vienna, he studied at Vienna and Leipzig, at the latter institution receiving his degree in 1870. In 1880 he was extraordinary professor of physiology at the University of Vienna, and, seven years later, corresponding fellow of the Viennese Academy. A likeness in relief of this physiologist was unveiled in the Arcades of the University of Vienna Oct. 16, 1898, on which occasion a memorial address was delivered by Exner. Fleischl von Marxow's most important writings are: "*Die Doppelte Brechung des Lichtes in Flüssigkeiten*" and "*Die Deformation der Lichtenwellenfläche in Magnetischen Felde.*" A complete collection of his works was published by Sigmund Exner in 1893, together with a portrait of this distinguished physiologist and optician. *American Encyclopedia of Ophthalmology*, Vol.7, p.5225.

Flemming, J. (1874-1918) German ophthalmologist widely known for his experiments on trachoma corpuscles and on the therapeutic action of radium and mesothorium. He was a student in the Kaiser-Wilhelm Academy. Having received his medical degree, he soon was troop physician, later physician in chief to the "Plöner Cadet Institution." Promoted to the aerial service, he made a large number of experiments in aviation, and, in this way, was of great service to the German Government. He also thoroughly studied the aerial bacteria, of which he named large numbers. From 1907-1911 he was assistant to Professor → Greeff. He died of a wound in a field hospital in his forty-fourth year. *AJO* 1919,2:165-166

Flemming, Percy (1863-1941) British ophthalmologist, Emeritus Professor of Ophthalmic Medicine and Surgery at University College. A Londoner by birth, he was a product of University College, for his preliminary education was received at University College School and he proceeded to University College Hospital for his medical training. Having taken the conjoint diplomas in 1885 he obtained his M.B. London in 1887 with the University Scholarship in medicine and honours in most of the other subjects. He took the M.D. with gold medal in 1888, and the F.R.C.S. Eng. in 1889 after a brilliant academic career. Fleming succeeded to the vacancy in the ophthalmic department at University College Hospital caused by the resignation of Marcus → Gunn. His chief was Sir John Tweedy and on the latter's retirement he advanced to the senior post. In 1900 he was elected to the staff at Moorfields and served his full time becoming consulting surgeon to both institutions. He was also a Fellow of University College. Fleming was a brilliant ophthalmologist but was not a profuse writer on his special subject. His retiring nature and habitual modesty perhaps made him not quite so well known outside the hospital as he deserved to be. Fleming had a second string to his life's interests, in archaeology and the history of London on which he was a recognised authority. He printed for private circulation an address which he gave, on late mediaeval London from a medical point of view, to University College Hospital Medical Society. And he was the author of a paper on the monastic infirmaries, particularly that of Westminster Abbey. He was elected F.S.A. in 1931. He was largely concerned, together with Marcus Gunn, in founding the training school for nurses at Moorfields. Fleming wrote: *Harley Street from early times to the present day* London 1939. *BJO* 26, 90-92, 1942; *The Times* 23.12.1941, *Lancet* 1942,1:28. *LFRCs* 1930-51:292-293. JPW

Fles, Joseph Alexander (1891-?) Dutch ophthalmologist. Born in Breda, he received the degree of Doctor in Medicine in 1843 at the University of Utrecht. In 1851 he was appointed docent for descriptive and pathologic anatomy at his alma mater, and in 1862 for ophthalmology. In 1868 he severed his connection with the University, and devoted himself to private practice as an ophthalmologist until his death. *American Encyclopedia of Ophthalmology*, Vol.7, p.5225.

Flesch, Jacob Gustav Adam (1819-1892) German physician, who devoted considerable attention to ophthalmology. Born at Frankfort-on-the-Main he studied at Heidelberg and Berlin, at the latter institution receiving his degree in 1839. His dissertation, on this

occasion, was "*De Glaucomate*." He practised in Frankfort from 1841 until his death. American Encyclopedia of Ophthalmology, Vol.7, p.5225.

Fletcher, Robert (1925-) British Professor of optometry and visual sciences. Fletcher received his primary education at Hampton Grammar School. He visited subsequently the Northampton Polytechnic, London, the London Refraction Hospital and the Manchester University receiving following qualifications: M.Sc.(Tech); F.S.M.C.(Hons); F.B.O.A.(Higher Diploma); D.Orth.; D.C.L.P.; F.C.Optom.; F.A.A.O. and A.M.C.T. During his career Fletcher received following awards: British Optical Association Research medal in 1963; Owen Aves medal in 1968 and the Gold Award of the Norwegian Optometric Association (NOF) in 1983. Fletcher became Professor of Optometry and Visual Sciences in 1964 and was in this position until 1981 at the City University in London. He was President of the College of Optometrists 1967-68; President of the Contact Lens Society in 1965; Chairman of the Advisory Board in 1965, Member of the editorial board of the Contact Lens Journal from 1966, Research Associate, Indiana University, USA, 1962. Fletcher is Expert Witness for High Court and Crown Court cases and ophthalmic as well university tribunals. He wrote following books: *Aspects of Intra Ocular Physiology* (Hatton Press, London 1954); *Ophthalmics in Industry* (Hatton Press, London 1960); *Field of Vision* (with K. Harwood) Reading 1972; *Careers in Eye Care* (with I.Fletcher de Tellez) London 1985; *Defective Colour Vision* (with J.Voke) Bristol 1985; *Glaucoma in Optometric Practice* (with F.G.Brown) Oxford 1990; *Eye Examination and Refraction* (as co-author) Oxford 1991, 2nd edition 1998; *Contact Lens Practice* (with L.Lupelli & A.Rossi) Oxford 1994; *MCOs in Optometry* (with K.Olliver) Oxford 1996; *Contattologia, una guida clinica* (with Lupelli & A.Rossi) Palermo 1998. Fletcher translated into English: Stenstrom *Optics and the Eye* (from Swedish) London 1964 and Saude *Ocular Anatomy and Physiology* (from Norwegian) Oxford 1993. He edited the *City University Colour Vision Test* (Keeler) Windsor 1975, 1980 & 1998 and the *Fletcher-Hamblin Simplified Colour Vision Test* (Keeler) Windsor 1984. He received the UK and USA patents for his *Vision Screener MAVIS* in 1959. Fletcher published countless papers, mostly in optical, optometrical and physiological journals. Address: 2 Chestnut Close, Amersham HP6 6EQ. Phone 01494 729269 JPW

Fliesler, Steven J. (1951-) American biochemist/cell biologist. Born in Albany, New York. After completing undergraduate training at the University of California, San Diego and Berkeley (B.A., biochemistry, 1973), Dr. Fliesler underwent doctoral training at Rice University, Houston, TX (Ph.D., biochemistry, 1980), with Professor George J. Schroepfer, Jr. He then pursued postdoctoral fellowship training (1979-1982) at Cullen Eye Institute, Baylor College of Medicine, Houston, TX, with Professors Robert E. Anderson and Joe G. Hollyfield. After serving as a Research Assistant Professor (1983-1984) at Cullen Eye Institute, Dr. Fliesler joined the Bascom Palmer Eye Institute and the Department of Biochemistry and Molecular Biology, Miami, FL, as an Assistant Professor in 1985. In 1988, he moved to Saint Louis University School of Medicine, St. Louis, MO, as an Associate Professor (1988-1994) in the Department of Ophthalmology and the E.A. Doisy Department of Biochemistry and Molecular Biology. Dr. Fliesler was promoted to full Professor of Ophthalmology in 1994 at Saint Louis University School of Medicine, and was appointed as Assistant Director of the Cell and Molecular Biology Graduate Program at Saint Louis University in 1999. Dr. Fliesler's research interests include isoprenoid and phospholipid metabolism and intracellular transport, protein glycosylation and prenylation, glycoprotein and oligosaccharide structure and metabolism, and photoreceptor membrane assembly in the retina. Dr. Fliesler has served on the Editorial Board of *Exp Eye Res* since 1995 and *Glycobiology* since 1990. *Honors and awards:* Bank of America Science and Engineering Scholarship (1971); University Research Foundation Fellowship, UCSD (1972 and 1973); Advanced Studies Fellowship, Rice University (1974-1975); Robert A. Welch Foundation Predoctoral Fellowship (1977-1979); Research to Prevent Blindness James S. Adams Scholar Award (1992); "Scientist of the Year" Award, Saint Louis University Chapter of Sigma Xi (1999). *Publications:* *Arch Biochem Biophys* 1988; *Arch Ophthalmol* 1987, 1989, 1992; *Biochim Biophys Acta* 1982, 1983, 1992; *Biochem Biophys Res Commun* 1986, 1995; *Curr Eye Res* 1984, 1994; *Exp Eye Res*, 1984, 1990, 1992, 1995, 1997; *FEBS Lett* 1992, 1993; *Glycobiology* 1990, 1993; *Intl J Biochem Cell Biol* 1997; *Invest Ophthalmol Vis Sci* 1986, 1999; *J Biol Chem* 1983, 1987, 1990; *J Cell Biol*

1985, 1995; *J Neurochem* 1974, 1985, 1986; *J Neurosci* 1984; *Nature* 1974; *Neurosci Lett* 1988; *Proc Natl Acad Sci USA* 1985, 1986; *Prog Lipid Res* 1983; *Tissue and Cell* 1986; *Visual Neurosci* 1988. Current address: Saint Louis University Eye Institute, Saint Louis University School of Medicine, 1755 S. Grand Blvd., St. Louis, MO 63104-1540; phone: +1-(314) 577-8259; fax: +1-(314) 771-0596; email: Fliesler@slu.edu.) (JPW)

Florio, Pierre (1840-?) Italian who reached a high rank as a physician in Russia. At the beginning of his professional career he was affected with the purulent eye inflammation and studied the disease for twenty-three years in France (1817), Warsaw (1819-1832) and St. Petersburg where he was chief physician at the military hospital. Florio had an opportunity to observe ophthalmia in 1817 among the Russian troops stationed in France and later, by order of the Tsar, his book was translated into Russian and printed at the expense of the Russian government to be distributed among the military physicians of the Russian army: *Description historique, théorique et pratique, de l'ophtalmie purulente observée de 1835 à 1839 dans l'Hopital Militaire de Saint-Petersbourg*. Paris 1841. (In Russian 1839[JPW]) Albert



Foerster, Carl Friedrich Richard (1825-1902) German ophthalmologist, inventor of the photometer (1857) and of the perimeter (1868). Born in Lissa, he studied medicine at Breslau, Heidelberg and Berlin, at the latter institution receiving his degree in 1849. In 1857 he settled in Breslau as an ophthalmologist. In 1894 he became a life member of the Prussian House of Lords on July 31, 1899, he celebrated the jubilee, or 50th anniversary, of his doctorate in medicine, and formally retired from practice. He published: 1. *Ueber Hemeralopie*. (Breslau, 1857.) 2. *Ophthalmologische Beiträge* (Berlin, 1862.) 3. *Beziehungen der Allgemeinleiden zu den Erkrankungen des Sehorgans*. (in Graefe-Saemisch *Handbuch*, Bd. 7, part V, 1877 [GM5915]) 4. *Künstliche Reifung des Cataracts*. (Archiv f. Augenheilk. 1883.) 5. *Einfluss der Concavgläser auf die Weiterentwicklung der Myopie*. (Archiv f. Augenheilkunde; Bd. XIV.) American Encyclopedia of Ophthalmology, Vol. 7, p. 5238. Albert, Tonkelaar.



Carl Friedrich Richard Foerster

Foerster, Helenor Campbell Wilder (1895-1998) American female ophthalmologist, pioneering ophthalmic pathologist. Born in Baltimore, Md, and educated in her native city at the Bryn Mawr and Western high schools, Helenor Campbell initiated her long scientific journey in 1914 as an apprentice laboratory technician and bacteriologist at the Department of Pathology at The Johns Hopkins Medical School, Baltimore, where she worked under the direction of William H. Welch and his associate Milton C. Winternitz. For patriotic reasons, she briefly interrupted her activities at Johns Hopkins during World War I to serve as a bacteriologist at Camp Meade (now Fort George G. Meade), Maryland. When the war ended she returned to Johns Hopkins as a bacteriologist working with William MacCallum, who had succeeded Welch as Professor of Pathology. Her 33-year career at the Army Medical Museum (subsequently the Army Institute of Pathology and now the Armed Forces Institute of Pathology [AFIP]) began in December 1920 when she was recruited by the museum's curator, George C. Callender. Having completed 6 years of training, she was well qualified to take on the task of processing the influx of ophthalmic and otolaryngologic specimens that began in 1922, after the museum formed an alliance with the American Academy of Ophthalmology and Otolaryngology for the dual purpose

of building a permanent collection of specimens (the Registry of Ophthalmic Pathology) and offering diagnostic consultative service. Helenor Campbell was the histopathology technician assigned to work with Callender to staff the newly inaugurated Section on Ophthalmic and Otolaryngologic Pathology. During the 1920s and 1930s she absorbed an exceptional understanding of ocular histology and pathology through her daily interactions with such outstanding military pathologists as Callender, James Ash, and Elbert DeCoursey; and also from Registry of Ophthalmic Pathology consultants who reviewed most of the difficult and unusual cases. Frederick Verhoeff, Jonas Friedenwald, and Georgiana Theobald were the ones who proved to be most helpful and timely in rendering their consultative reports. She also collaborated with Ash and DeCoursey in selecting and preparing illustrations for the first 3 editions of the *Atlas of Ophthalmic Pathology*, printed and bound at the Army Medical Museum. Later still, she would assist Friedenwald and members of the American Academy of Ophthalmology and Otolaryngology's Committee on Revision of the *Atlases* by preparing all of the illustrations and contributing portions of the text for the green-bound first edition of the atlas, published in 1952 by W. B. Saunders Co under a joint contract between the AFIP and the American Academy of Ophthalmology and Otolaryngology. During the ensuing 25 years she won the respect and admiration of her colleagues at the museum as well as the world of ophthalmology, and through steady excellence rose in rank to become head of the Section of Ophthalmic Pathology. To this day she remains the only person in AFIP history entrusted with the duties and responsibilities of a pathologist despite the lack of an undergraduate, medical, dental, or veterinary degree. Notwithstanding the lack of the "doctor" title, Mrs Wilder was not only "accepted" by departmental chairpersons throughout the world, but loved and even adored by many. Shortly after she informed DeCoursey of her plans to retire from the AFIP, he recruited one of his junior staff pathologists, Lt Col Lorenz E. Zimmerman, to become her successor. Several months later she escorted Zimmerman to the 1953 annual meeting of the American Academy of Ophthalmology at the Palmer House in Chicago, Ill, because she wanted to be certain he would meet every VIP in attendance. She delighted in presenting him to eminent professors and departmental chairpersons from all over the world, and boasted about his great potential; but it was clear from the way the attendees embraced and kissed her that she would be sorely missed. Helenor Campbell Wilder's acute sense of observation, combined with her persistent curiosity about the pathogenesis of ocular diseases, resulted in more than 35 scholarly contributions to the scientific literature in 17 different refereed publications. She was the sole author of 18 of these. She is best known for her twin discoveries of the protozoal organism *Toxoplasma gondii* as the cause of a form of blinding retinal inflammation previously attributed to tuberculosis, and of the presence of the larval form of the nematode *Toxocara canis* in enucleated eyes suspected of harboring retinoblastoma. Her classic reports not only called attention to the clinical and microscopic characteristics of these ocular infestations, which resulted in the institution of appropriate therapeutic and public health preventative measures, but also stimulated other basic and clinical scientists to further investigate these entities. She also deserves great credit for developing the Wilder stain for reticulin and for collaborating with Callender in formulating the widely used, and still valid, Callender-Wilder classification of intraocular melanomas. In 1947 Mrs Wilder was the first woman to be elected an honorary member of the American Academy of Ophthalmology and Otolaryngology and was awarded the Academy Honor Society's Gold Key. Several additional honors were bestowed on her shortly after she announced her plans to retire from the AFIP in 1953 in preparation for her marriage the following year to Roland C. Foerster, a prominent San Francisco attorney. She was named Woman of the Year for Science by the Woman's National Press Club. The presentation was made in Washington, DC, by President and Mrs Eisenhower. Mrs Wilder was the only person ever elected a member of the American Association of Pathologists and Bacteriologists without an MD degree. In 1954 she received the Exceptional Civilian Service Award, the highest civilian award of the Department of Defense. In commenting about her studies of *Toxoplasma* species, DeCoursey, her former colleague and former director of the AFIP, stated: "It is the consensus of the medical profession that Mrs Foerster's discovery advanced ophthalmic science 50 years." When Mills College, Oakland, Calif, conferred an honorary LLD degree on her in 1954 she was recognized for her studies of disease, her contributions to public health, and her "vision of human needs." In 1956 she received the Leslie Dana Gold

Medal of the St Louis Society for the Blind. The move to San Francisco did not dull Mrs Foerster's keen interest in ophthalmic pathology. She maintained an official association with former colleagues at the AFIP as an appointed consultant to the professional staff and also accepted dual appointments at the Francis Proctor Foundation for Research in Ophthalmology as an associate research ophthalmologist, and at the Department of Ophthalmology at the University of California Medical School as a lecturer in ophthalmic pathology. There, between 1954 and 1976, she worked with Frederick Cordes, Michael Hogan, Phillips Thygeson, Levon Garron, William Spencer, and Brooks Crawford while continuing to contribute to the ophthalmic literature, present papers at national and regional meetings, attend weekly eye pathology sessions, and consult on difficult cases. In 1958, she and her husband also established a scholarship fund in her name dedicated to the continuation of ophthalmic pathology research at the University of California Medical Center. Mr Foerster died in 1961. In 1968 she was guest of honor at the European Ophthalmic Pathology Society meeting in Paris, France. In her later years, Mrs Foerster continued her contacts with her medical colleagues throughout the world. She attended Verhoeff Society meetings as an emeritus member until she was well into her ninth decade of life. Arch Ophthal 117,849,1999

Folker, William Henry (1826-1912) British surgeon. Founder of the eye department at the North Staffordshire Infirmary. The Ophthalmoscope, 1912, p.301-302.

Follin, François Anthime Eugène (1823-1867) French pathologist, surgeon and ophthalmologist. Born in Harfleur, France, he studied his profession at Paris, becoming in 1845 interne, in 1847 Aide d'Anatomie, in 1850 prosector to the faculty, and in 1853 surgeon to the Central Bureau. His degree was received in

1850, presenting as his dissertation "*Etudes sur les Corps de Wolf*." In 1853 he was made extraordinary professor of surgery at the University. Up to this time Follin had written a number of books and articles dealing with anatomy, pathology and general surgery. Now, however, about 1853, he began to devote his attention more especially to ophthalmology, and became a celebrated operator on the eye. He wrote a large number of articles on this subject, dealing with glaucoma, its pathology and treatment, iridectomy, illumination, accommodation, retinal hemorrhage and the medical and surgical treatment of diseases of the lachrymal passages. His most important writing, from the point of view of ophthalmology, was that entitled *Leçons sur l'Application de l'Ophthalmoscope au Diagnostic des Maladies de l'Oeil* (Paris, 1859; Germ.trans., Weimar, 1859). This atlas was the earliest work in the French language, devoted to the use of the ophthalmoscope and second edition appeared under the title: *Leçons sur l'exploration de l'oeil et en particulier sur les applications de l'ophthalmoscope* Paris 1863. Follin also wrote a *Traité élémentaire de Pathologie Externe* (from volume 3 onwards with S.Duplay) that was started in 1861 and finished in 1888 with the 7th volume. American Encyclopedia of Ophthalmology, Vol.7, p.5240. Albert .JPW

Foltz, Jean Charles Eugène (1822-1876) French anatomist, physiologist and ophthalmologist. Born in Nancy, he studied at the Strasburg Military School and at Val de Grâce. Settling in Lyons, he was appointed in 1854 assistant professor of anatomy and physiology, and, in 1865, full professor of the same subject, in place of his uncle, Richard Foltz. His ophthalmologic writings are: 1. *Sur le Traitement Mécanique de la Myopie*. (Annales de la Soc.de Méd. de Lyon, 1859.) 2. *Anatomie et Physiologie des Conduits Lacrymaux*. (Ibid., 1862.). American Encyclopedia of Ophthalmology, Vol.7, p.5240

Foltz, Kent Oscanyan (1857-1908) American eclectic ophthalmologist of Cincinnati, Ohio. He was born in Lafayette, Medina County, Ohio, the son of Dr. William K. Foltz, who was one of the earliest and best known of eclectic physicians in the middle west. Foltz graduated from the Ashland, O., High School in 1872, and attended Buchtel College, in Akron, Ohio, for two or three years. For a time he worked in the retail, then the



Follin's book on the Use of the Ophthalmoscope for the Diagnosis of Eye Diseases.

wholesale drug business. Then he became an optician. At length, under his father's preceptorship, he began to study medicine. His medical degree was received at the Eclectic Medical Institute, Cincinnati, Ohio, in 1886. For a brief period he practised general medicine, but, in 1888 and 1889, at the New York Post-Graduate Medical School, he made a thorough study of the eye, ear, nose and throat. In 1890 he became connected with, the Polyclinic, the Manhattan Eye and Ear Infirmary, and the Harlem Dispensary. Soon after, however, he gave up institutional practice, and engaged again in general work. In 1898 he moved to Cincinnati, having been appointed to the chair of Didactic and Clinical Ophthalmology, Otology Rhinology and Laryngology in his alma mater-the Eclectic Medical Institute. In 1891-92 he was President of the Ohio State Eclectic Medical Association. He was also one of the associate editors of the Eclectic Medical Journal for a number of years, during a part of which time he conducted the Eye, Ear, Nose and Throat Department of that publication. He wrote: "*Manual of Eye Diseases*" (1900) and "*Manual of Diseases of the Nose, Throat, and Ear*" (1906). He also contributed numerous articles to Prof. Herbert T. Webster's "*Dynamical Therapeutics.*" American Encyclopedia of Ophthalmology, Vol. 7, p. 5240-5242. The Ophthalmoscope, London 1908, p. 652

Fong, Kee Siew (1962-) Singapore female Ophthalmologist, Consultant at the Singapore National Eye Centre. She graduated from the National University of Singapore in 1986 and started ophthalmology training in 1990. She received the Master of Medicine (Ophth) and Fellow of the Royal College of Surgeons of Edinburgh (Ophthalmology) in 1993 and has since joined the Singapore National Eye Centre. She was sent on an Oculoplastic fellowship to Sydney Eye Hospital in 1997. She is currently a Consultant of the Oculoplastic service at the Singapore National Eye Centre. Representative published articles include "*Using the phacoemulsification crescent knife in dacryocystorhinostomy. Ophthalmic Surg Lasers.* 1998 Apr 19(4): 343-4. Fong KS, Koh A, Choo CT"; "*Surgical management of upper lid epiblepharon,* Eye. 1998; 12(Pt 4): 623-6. Choo CT, Chan CML, Fong KS" and "*Hydroxyapatite orbital implants- our local experience.* Ann Acad Med Singapore 1997 July, 26(4): 405-8. Fong KS, Choo CT". (Dr FONG Kee Siew, 11 Third Hospital Avenue, Singapore 168751, Singapore. Phone: (65) 2277255; Fax: (65) 2277290) (SM)

Fontana, Felice (1720-1805) Italian physicist, chemist, and physiologist, whose name has been preserved for ophthalmologists in the expression, *canal of Fontana*. Born in Pomarolo, near Rovereto, he studied at Padua, Bologna, and Rome. After a brief period spent as instructor in philosophy at Pisa, he was commissioned by the Duke of Tuscany to establish in Florence a natural history museum. He wrote "*Ricerche de Motu del iride*" (Lucca, 1765) [GM1485]. He also wrote an important work on the effects of poisons: *Traité sur le vénin de la vipere* Florence 1781. An English translation was published 1787. American Encyclopedia of Ophthalmology, Vol. 7, p. 5343. Albert

Foot, Jesse (? -?) An English ophthalmologist of the early 19th century, whose life-dates cannot be ascertained. He was physician to the Westminster Ophthalmic Hospital, London, and published a work entitled "*Ophthalmic Memoranda*" (London, 1838). American Encyclopedia of Ophthalmology, Vol. 7, p. 5243.

Forbes, C. F. (?-?) English military surgeon who wrote "*Observations on the History and Treatment of an Epidemic Ophthalmia, which appeared in the Fourth Battalion of the Royals, in Edinburgh Castle, during the months of July and August 1807.*" American Encyclopedia of Ophthalmology, Vol. 7, p. 5244.

Forbes, Edward (1815-54) British naturalist, born in Douglas, Isle of Man, entered the University of Edinburgh as a student of medicine; and in 1836 relinquished medical studies to devote himself to the natural sciences. In 1836-37 he studied at Paris under Geoffroy St. Hilaire, Jussieu, and De Blainville. In 1841 he joined the surveying ship *Beacon* as naturalist, and accompanied that vessel during the survey of a part of Asia Minor. On his return to England (1843) he became professor of botany at King's College, London, and curator of the Geological Society. In 1844 he was appointed paleontologist to the Museum of Geology; in 1851 professor of natural history in the School of Mines; in 1852 president of the Geological Society; and, in 1853 he was elected to the chair of natural history at the University of Edinburgh. Forbes did much to advance and systematize special departments of natural history. His classification of the British

starfishes opened a new era in that branch of zoology; and his discovery that air-breathing molluscs lived at the period of the Purbeck beds, rectified many erroneous hypotheses. Among his separate works, may be instanced, as of interest to ophthalmologists: "*Naked-eyed Medusae*" (1847). American Encyclopedia of Ophthalmology, Vol. 7, p. 5244.

Forbes, John. An English naval surgeon who wrote "*Observations on Tropical Nyctalopia*" (Edinburgh Med. and Surg. Jour., 1811). American Encyclopedia of Ophthalmology, Vol. 7, p. 5244.

Foreest, Pieter van (1522-1597) Dutch physician. This remarkable man is known as the "Batavian Hippocrates". Born in Holland he received his medical degree at Bologna, and afterwards studied for a long time at Rome, Padua, Paris and Louvain (Leuven, Belgium). He practised for a time at Bordeaux, then at Pluviers, but settled at length in Alkmaar, Holland, which seems to have been his native town. Here he practised for twelve years, and then moved to Delft. At the founding of the Leyden University he was made (of course, the first) professor of internal medicine at that institution. He devoted considerable attention to diseases of the eye, and was one of the first physicians to prescribe concave lenses for myopia. He seems, however, not to have performed the cataract operation. After forty years of both medical and surgical activity at Delft, he returned to Alkmaar, where he died. His most important works, both of which contain ophthalmic observations of some importance in their day, are: 1. "*Observationum et Curationum Medicinalium Libri xxxii* .. (Leyden, 1587-1610) [GM3710.1 for "Liber xix"]. 2. "*Observationum et Curationum Chirurgicarum, Libri xi*. Leiden 1610 "American Encyclopedia of Ophthalmology, Vol. 7, p. 5267-5268.

Forestus, Petrus see **Foreest**



Joseph Nicolas Blaise Forlenze

Forlenze, Joseph Nicolas Blaise (1769- 1833) Italian ophthalmologist, who was born at Picerno. Forlenze studied at first in various Italian and Greek universities, then, under Desault and Louis, in Paris, and under John Hunter in London. He settled as ophthalmologist in France, presumably in Paris. His death date cannot be learned. Forlenze's ophthalmologic writings are as follows: 1. "*Considérations sur l'Operation de la Pupille Artificielle*. (Strasbourg and Paris 1804.) 2. "*Observations et Reflexions sur plusieurs Cataractes*. (Annuaire de la Soc. de Méd. du Département de l'Eure, 1809.) 3. "*Rapport sur les opérations de cataracte faites par M. le Docteur Forlenze ... observations faites sur un jeune homme opéré d'une cataracte de naissance*. [Strasbourg: F.G. Levrault, 1817] 4. "*Relation des opérations et des expériences faites a Colmar par le célèbre oculiste Forlenze, sur neuf aveugles affectés de cataractes ... Colmar: Chez J.H. Decker, 1817* 5. "*Notice sur le developpement de la lumière et des sensations, dans les aveugles-nés a la suite de l'opération de la cataracte* . . . 3rd. ed. Paris 1820. American Encyclopedia of Ophthalmology, Vol. 7, p. 5273. Albert

Fossombroni, Vittorio (1754-1844) Tuscan statesman and mathematician, wrote a series of works on physics and mathematics during the early years of his career: "*Saggio di ricerche sull'intensità del lume* Arezzo 1781.

Foster, David (?-) British scientist, Professor of Visual and Computational Neuroscience. David Foster studied Physics at Imperial College, London. He graduated with first class honours and undertook postgraduate research in vision in the Applied Optics Section, receiving his PhD in 1970. After a 1-year research assistantship, he was appointed lecturer in the Department of Physics at Imperial. In 1976 he went to Keele University to join the Research Department of Communication and Neuroscience, where he was subsequently appointed to a readership, then to a personal chair in 1988, and then to the headship in 1994. He moved to Aston University in 1995 as Professor of Vision Sciences and head of department. In 1999 he moved to UMIST to take up a personal chair in the Department of Optometry & Neuroscience. He was elected Fellow of the Institute of Physics and of the Institute of Mathematics and its Applications in 1981, and awarded a DSc in Biophysics from London University in 1982. He is an elected member of the Physiological Society, the Association of British Neurologists, the British Society for Clinical Neurophysiology, the Experimental Psychology Society, and others. He has served on the management committees of the Colour Group of Great Britain and of the Applied Vision Association, of which he was Chairman 1986-1995. He is a member of

the EPSRC Computing College. He co-founded the journal *Spatial Vision* in 1984, served as Editor-in-Chief for Europe and Australasia for 10 years, and is now Advisory Editor. He is also Associate Editor of *Computers in Biology and Medicine*. Address: Professor D.H. Foster, Optometry & Neuroscience, UMIST, P.O.Box 88, Manchester, M60 1QD, UK; Tel:+44 (0)161 200 3888/3889 Fax:+44 (0)161 200 3887 Email: d.h.foster@umist.ac.uk (JPW)

Foster, Gard Wilmarth (1853-1914) American ophthalmologist and otolaryngologist of Auburn, New York. Born in Burlington, Vt., he received the medical degree at Detroit Medical College in 1873. He was for a time surgeon to St. Luke's Hospital, New York City, and, in 1882, to the New York Ophthalmic Hospital. About this time he settled in Auburn, where he resided until his death. He was a collector of fine books, and an omnivorous reader. He founded *The Auburn Free Dispensary for Worthy Poor*. American Encyclopedia of Ophthalmology, Vol.7, p.5277.

Foster, John (1903-1984) British ophthalmologist. John Foster, the eldest son of John Robert Foster, an ophthalmic surgeon, was born in West Hartlepool. He was educated at Aysgarth School, Uppingham School and Caius College, Cambridge, before entering the London Hospital Medical School where he won prizes for clinical medicine, clinical surgery, minor surgery and the Treves Prize. After qualifying in 1928 he held three house appointments at the London Hospital and was then house surgeon at the Royal Westminster Eye Hospital where he secured the Guthrie Research Prize and passed the final FRCS in 1930. He was appointed consultant ophthalmic surgeon to the Leeds General Infirmary in 1933 and later recorded his professional indebtedness to Russell Howard and Charles Goulden in England, and to Hermegildo Arruga and Louis Paufigue abroad. He served the Leeds General Infirmary for 35 years and was also senior lecturer in ophthalmology at the University of Leeds. He was a Hunterian Professor of the Royal College of Surgeons in 1956 and President of the Ophthalmic Section of the Royal Society of Medicine in 1961. At various times he gave the May, Middlemore and Montgomery Lectures; he also gave the Doyne Lecture at Oxford in 1951, later published as *Aims and obstacles in the ophthalmic clinic*. He edited the second edition of *Philips's Ophthalmic operations*, 1961. Foster received following titles: MRCS 1928; FRCS 1930; BA Cambridge 1924; MB, BCh 1930; MD 1938; DOMS 1931; MD (Hon) Melbourne 1952; LRCP 1928; Brit. med. J. 1984, 288:1465. LFRCS

Foster, John Robert (1868-1948) British ophthalmologist born in Sleights, Yorkshire, father of John Foster (also an ophthalmologist). Foster qualified at Edinburgh in 1893. After holding House appointments at the Central London and Royal Westminster Ophthalmic and at the Golden Square Nose and Throat Hospitals, he was appointed as Ophthalmic Surgeon at the Hartlepool Hospital. A year later he was appointed as Ophthalmic Surgeon to the Cameron and Howbeck House Hospitals and the Hartlepool Education Authority as Aural and Ophthalmic Surgeon. He served in this capacity, being an excellent and careful surgeon, until at the age of 64 he had to retire from hospital and private practice owing to ill-health. BJO 1948,33:591

Foucault, Jean Bernard Léon (1819-68) French physicist, born in Paris. He improved Daguerre's photographic processes, and conducted, in cooperation with →Fizeau, investigations on the properties of light. Léon Foucault attained world fame with two experiments. In 1850, with what is known as the rotating mirror method, he determined the velocity of the propagation of light. In his famous pendulum experiment in the Panthéon in Paris in 1851, he made the earth's rotary motion visible to the general public. Foucault and Fizeau (1819 – 1896) initially worked together in the field of photography. In 1845 they took the first picture of the sun. In addition, they examined the infrared spectrum and interference phenomena. After they agreed to go their separate ways on an amicable basis, each tried separately to determine the velocity of the propagation of light., Fizeau was successful with the toothed disk or wheel method in 1849, and Foucault with the rotating mirror method in 1851. Both supplied the proof required to confirm the wave theory, i.e. that light propagates more slowly in water than in air. In 1862 Foucault's final measurements showed the velocity of light to be 298000 km/s. In the production of telescopes in particular, special significance was given to what is known as Foucault's knife edge technique for testing the surface quality of lens elements and mirrors. Foucault

invented it as early as 1856, but did not actually mention it until he published a paper on the construction of telescopes in 1859. This technique was used for over a century for quality testing and quality assurance in the building of astronomical instruments. Today, advanced interferometric measuring techniques are used to measure the quality of all kinds of optics. In 1857 Foucault invented his polarizer; and two years later (1859) his reflector for the great telescope in Paris was completed. Foucault also invented apparatus for the better application of the electric light. He edited the scientific part of the *Journal des Débats* from 1845, and was elected a foreign member of the Royal Society of London in 1864. *American Encyclopedia of Ophthalmology*, Vol.7, p.5277. JPW

Foucher, Jean Thimothée Emile (1823-1867) French surgeon and ophthalmologist. He was professor to the Paris Faculty, and delivered the supplementary courses in ophthalmology. He is said to have written 141 works and articles. His chief ophthalmologic writings are "*Du Glaucome. de sa Nature. de son Traitement*" (Rev. Thér. Médico-Chir.) and "*Leçons sur la cataracte*" Paris 1868. He also translated Wharton → Jones's "*Diseases of the Eye*" (Paris, 1866). *American Encyclopedia of Ophthalmology*, Vol.7, 5277-5278.

Fouillioy, Louis Mathurin (1791-1848) French naval physician, who paid considerable attention to ophthalmology. Born at Landerneau, he received his medical and surgical degree in 1813, at Brest, in the "Ecole de Santé." He was a very remarkable operator on every portion of the body, and invented a number of amputations and prosthetic apparatuses. In 1843 he settled in Paris as Adjunct General Superintendent of Naval Sanitary Affairs, and two years later became the superintendent in chief. Fouillioy's chief ophthalmologic writing is entitled "*Notice sur un Procédé de Ténatomie Oculaire. Démontré et Pratique à l'Hôpital de la Marine de Brest*" (Annal. Marit. et colon, 1841; Gaz. des Hôpit. 1841. *American Encyclopedia of Ophthalmology*, Vol.7, p.5278.

Foulks, Gary N. (1944-) American ophthalmologist, Clinical Scientist and Educator, Professor and Chairman, Department of Ophthalmology, University of Pittsburgh. Born in Salt Lake City, Utah, Foulks is a graduate of West High School and received an A.B. from Columbia College of Columbia University in 1966 and an M.D. from Columbia University College of Physicians and Surgeons in 1970. He was a surgical intern at the University Hospital of San Diego County in 1971. He was a medical officer in the U.S. Public Health Service from 1971 to 1973. He completed his residency in ophthalmology at Duke University in 1976; from 1976-78 he was a fellow in corneal disease at the Massachusetts Eye and Ear Infirmary and the Retina Foundation under Professor Claes H. → Dohlman. In 1978 Foulks was appointed to the faculty at Duke University initially as an Assistant Professor and Director of the Cornea Service. In 1983 he was appointed Associate Professor and in 1988 was appointed the Professor of Ophthalmology. In 1996 Foulks was appointed the Professor and Chairman of the Department of Ophthalmology at the Eye and Ear Institute of the University of Pittsburgh and still holds this post. He has authored over 70 scientific papers, 17 book chapters and four books. Some examples of his publications are: "*Factors related to corneal epithelial complications after closed vitrectomy in diabetics*. Arch. Ophthalmol. 97:1076-1078, 1979", "*Glaucoma associated with penetrating keratoplasty*. Ophthalmology 94:871-874, 1987", "*Reduced graft rejection with good HLA-A and -B matching in high-risk corneal transplantation*. N. Eng. J. Med. 315:29-35, 1986", and "*The now and future therapy of the non-Sjogren's dry eye*. Advances in Experimental Medicine & Biology. 438:959-64, 1998." He is a member of the Executive Editorial Board of the Journal Cornea and served on the Editorial Board of the von Graefe Arch. Clin. exp. Ophthalmol. (1992-1994), and as a scientific reviewer for Am. J. Ophthalmol., Archiv. Ophthalmol., Invest. Ophthalmol. Vis. Sci., Cornea, Ophthalmology, Cornea and the CLAO (Contact Lens Association of Ophthalmologists) J. He is the President of the Castroviejo Cornea Society (1997-1999) and served as Executive Secretary-Treasurer of that Society (1990-1995). He has been a member of the CLAO Board of Directors (1994-1999) and is presently Long Range Planning Chairman for CLAO. He is a member of numerous state and national organizations. He has been Visiting Professor at 25 Universities and has delivered two Named Lectures. The 1994 Everett R. Viers Lecture (Clinical Implications of Tear Protein Analysis, Texas A&M University) and the 1998 J. Robert Meyers Lecture (The Now and Future Therapy of Dry Eye, Penn State University). Honors include: AOA (1969), AAO Honor Award (1988), and AAO Senior Honor Award

(1997). His research interests include corneal graft rejection, dry eye disease, and ocular surface disease. He enjoys fly-fishing, photography, and his family. (Department of Ophthalmology, University of Pittsburgh, Pittsburgh, PA, USA 15213, phone: +1- 412- 647-2205, fax: +1- 412- 647- 5119, e-mail: Foulksn@msx.upmc.edu) (SM)

Fournier de Pescay, François (1771-?) French surgeon, who paid considerable attention to ophthalmology. Born in Bordeaux, France, the son of a San Domingan planter, he studied medicine in Paris, and became a military surgeon. After a number of years of military service, he settled in Brussels, where he became at the Secondary School professor of pathology and co-founder of the *Société de la Médecine, Chirurgie et Pharmacie* and sole founder of a journal, "*Nouvel Esprit des Journaux*." He afterwards lived at Paris, Port-au-Prince, and Pau. While his home was at Pau he passed away; the date of his death is, however, uncertain. Fournier de Pescay translated, together with Bégin, Antonio→Scarpa's famous "*Saggio di Osservazioni e d'esperienze sulle principali malattie degli occhi*-Pavia 1801"[GM5835]"; ("*Traité des principales Maladies des Yeux*" 2 vols.,Paris 1821).American Encyclopedia of Ophthalmology,Vol.7,p.5279

Fox L. Webster (1853-1931) American ophthalmologist. Webster Fox was born at Hummelstown,Pa., He graduated from Jefferson Medical College in 1878. After graduate study in Vienna, he served as clinical assistant at the Moorfields Hospital, London; and, on his return to Philadelphia, became clinical assistant in the Jefferson Medical College; and in 1893 professor of ophthalmology in the Medico-Chirurgical College. On the merger of the latter institution with the University of Pennsylvania, he was made professor in the Graduate School of Medicine in the University. In 1886 he assisted George M.→Gould in the preparation of a quiz compend and in 1904, published his *Practical Treatise on Ophthalmology* (other editions in 1910 and 1920). Fox also authored *Diseases of the Eye*, published in London 1907. He was eminent as an operator and clinical teacher. His *Reports of Eye Clinics*, published in five volumes (see AJO v. 12, p. 927; v. 13, p. 1110) included a wide range of interesting cases, reported with sufficient detail to make a valuable work of reference. AJO 1932,15:71 JPW

Francaviglia, F. (1843-1917) Well known Sicilian ophthalmologist AJO,1:293.

Franceschetti, Adolphe (1896-1968) Swiss ophthalmologist specialized in genetics in ophthalmology. He received his MD degree with the thesis *Beitrag zur Kenntniss der Evulsio Nervi Optici*. In 1925, after four years as assistant to Professor Alfred→Vogt in Zürich, he became chief of staff to Professor →Brückner in Basle. It was there that he wrote his important thesis on the intraocular fluids and the hematoocular barrier. From the start of his ophthalmologic studies he was interested in all questions appertaining to ocular genetics, and consequently was the obvious choice to edit the chapter on heredity in ophthalmology in Schieck and Brückner's "*Kurzes Handbuch der Ophthalmologie*" (1930).In 1933, he was appointed to the chair of ophthalmology in the University of Geneva, and there he established a school whose renown extends far beyond the boundaries of Switzerland. An indispensable collaborator in any new treatise, he was asked in 1939 to write the chapter on internal secretions and their relations to ophthalmology in the "*Traité Français d'ophtalmologie*"; in 1948, he wrote the chapters on social problems and heredity in ophthalmology, oculomotor disorders, the pupil and palpebral affections in the Swiss textbook; in 1955, he wrote the chapter on the heredity of ocular affections in the "*Encyclopédie Médico- Chirurgicale*." He was sought after as a speaker at every Congress and was invited to give a report on post-traumatic encephalopathy at the "*Société Suisse de Neurologie*" (1943) ; on tapetoretinal manifestations in heredo-ataxia due to spino-ponto-cerebellar degeneration at the Congress of Oto-neuro-ophthalmology (1948) ; on the clinical and social aspects of genetics in ophthalmology at the International Congress in London (1950) ; on the clinical, anatomical and histoparasitologic diagnosis of toxoplasmosis at the first Latin Congress of Ophthalmology (1953) ; and on the ocular manifestations of primary disorders of lipid metabolism at



Franceschetti's Journal on Human Genetics

the International Congress of Oto-Neuro-Ophthalmology (1954). In 1951 he who throughout his life had been deeply interested in all problems and all aspects of heredity, after many struggles and false starts reached his goal when he established the Institute of Medical Genetics attached to the Geneva Ophthalmological Clinic. He transformed and expanded the institute to make it one of the finest on the continent. Likewise under his direction, the first French journal on Human Genetics was Published in 1952. He was an honorary or titular member of some 75 societies and academies. He was one of the founders and a president of the "*Académie Suisse des Sciences Médicales*", president of the International Association for the Prevention of Blindness; member of the International Council of Ophthalmology; president of the permanent committee of the International Congresses of Human Genetics. Finally, he was a doctor "*honoris causa*" of the Universities of Ghent, Toulouse and Heidelberg. The finest evidence of his fame, however, is to be found in his 500 magnificent publications, which bear definitive witness to the fact that no aspect of ophthalmology, medicine or biology left him indifferent. No genetic problem, no rare syndrome, no general disorder with ocular involvement escaped his scientific interest. His special interests were neural and cutaneous diseases, oculomotor disorders, paralytic strabismus, tapetoretinal degenerations, corneal dystrophies and corneal transplantations, for which he designed an ideal trephine, and various other surgical techniques several of which (for example, corepraxy) were of his own creation. He was the first to recognize certain clinical entities, of which mandibulofacial dysostosis (to mention only one) bears his name. Jointly with →Waardenburg and Klein, he wrote a treatise in three volumes on *Genetics and Ophthalmology*. With Jules→François and Babel he was the author of "*Les Hérédo-dégénérescences Choriorétiniennes*" (Paris 1963) the two volumes of which brought the authors the Alfred Vogt Award. With Klein, he wrote the chapter on hereditary malformations and ocular affections in one of the volumes of Becker's treatise on human genetics. Franceschetti also founded, 1952, the *Journal de Génétique Humaine*. AJO 1968,66:134-135.JPW

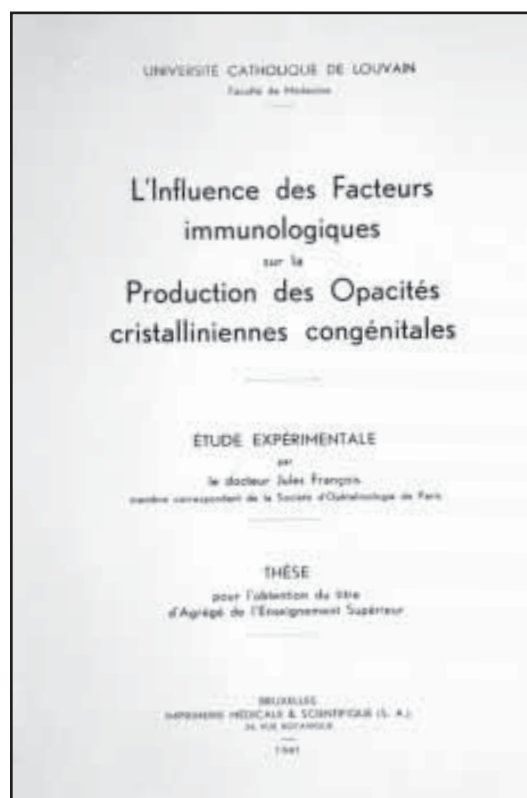
Franco, Pierre (c.1500-c.1561) French surgeon, pupil of Paré, and, though chiefly a general surgeon, the greatest cataract depressor of the Renaissance, or, rather, post-Renaissance, period. He was born at Turiens, near Sisteron, Provence. He led for many years the life of a wandering cataract-sticker, "hernia-operator," and "cutter-for-stone." At last, however, he settled with some degree of permanence in Lausanne and Bern in Switzerland, and Orange of Provence in France. Concerning the cataract operation (which, in those times, was either depression or suction) he was very enthusiastic. Thus, he says, "*Yes, I do assure you that, if I had to renounce either this cataract operation or all the rest of surgery, I would rather give up all the rest of surgery.*" Various details of his instructions for the cataract operation evidence unmistakably a wide personal experience as well as the very keenest powers of observation. Thus, in telling what to do, in case the cataract appears in the pupil again after it has been depressed, he says that it must, of course, be couched again, but not through the former opening, for it is less painful, he declares (and rightly) to perforate the sclera anew than to pass the instrument in once more by way of the old opening. American Encyclopedia of Ophthalmology, Vol.7, p.5286-5287.

François, Baron Jules (1907-1984). Belgian ophthalmologist, Baron of the Kingdom of Belgium, former director of the Ophthalmology Clinic of the University of Ghent, and emeritus professor of the faculty of medicine. François was born May 24, 1907. He graduated in medicine with distinction from the University of Louvain [or Leuven in Flemish] in 1930. He was initially interested in microbiology but an early study concerning the production of cataract by immunologic methods stimulated his lifelong interest in ophthalmology. His interests were wide ranging and there is scarcely an area in the field about which he has not written. He detailed the anatomy of the central retinal artery of the optic nerve. Together with Guy→Verriest, he designed instruments for tonometry, perimetry, dark adaptation, and electro-oculography. He described a number of syndromes: several corneal dystrophies, vascular pseudopapillitis, facial dysostosis, fundus flavimaculatus (with Franceschetti), dystrophic skinbone-cornea, and many others. He was a prolific writer, speaker, and master of languages. He published over 1,500 scientific papers, authored or edited some 30 books, and wrote many book chapters. His early studies dealt with general ophthalmology, glaucoma, conjunctivitis, fever therapy, cataract, and biochemistry. In recent years, he emphasized genetic studies but continued to have an



The Jules François Medal

interest in ophthalmic surgery, diabetic retinopathy, and general ophthalmology. His books, "*L'Hérédité en Ophthalmologie*," 1958; "*Les Cataractes Congénitales*," 1959" and "*Les Hérédo-dégénérescences Choriorétiniennes*" 1963 (co-authored with →Franceschetti and →Babel), are standard reference works. Other books he authored and co-authored are: "*Electrodiagnosis, Toxic Agents and Vision*" (with De Rouck), The Hague 1978; "*Occupational and Medicative Hazards in Ophthalmology*," Basle 1969; "*The Clinical Value of Electroretinography*," Basle 1978; edited by Dan M.Gordon: "*Genetic Aspects of Ophthalmology*," 1968; "*Oculomycoses*," Springfield 1972; "*Symposium on Light-Coagulation, Argon and Xenon Arc*," 1973. François was decorated by the governments of



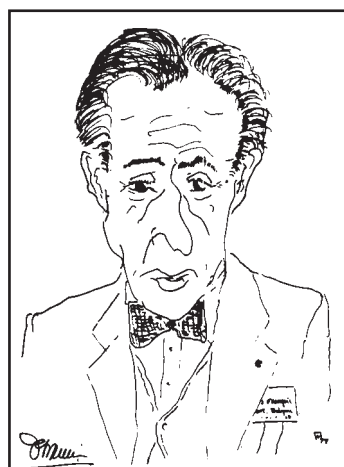
Jules François' Professoral thesis submitted 1941

Belgium, the Vatican, Brazil, Italy, Greece, the Netherlands, Germany, and Japan. He received honorary doctorates from ten universities (Clermont-Ferrand, Toulouse, Geneva, Nancy, Brunn, Budapest, Sassari, Cordoba Nacional, Cordoba Catolica, and Catama). He was an honorary citizen of half a dozen cities. He gave numerous named lectures, including the Jackson Memorial Lecture of the Ophthalmic Publishing Company at the American Academy of Ophthalmology and Otolaryngology in 1959. He was guest of honor at some 80 national, international, and local ophthalmic meetings. He spoke at medical meetings on every continent and was an honorary member of some 60 medical



Caricature showing from left M.-A. Dollfuss, Jules François, Franceschetti and Babel. (Dollfuss apologizes for being late in publishing the two-volumes set of the Report on Chorioretinal Degenerations)

societies. François founded the *Academia Ophthalmologica Internationalis* and in 1979 with J.-P. Wayenborgh created an ophthalmological historical review: *Historia Ophthalmologica Internationalis*. After his death, in his honour, a Jules François Gold Medal was created and still exists. He was president for life of the *Academia Internationalis Ophthalmologica*. He was named to Chair No. I of this society and in his honor, it will never be reassigned. He served as president of the Royal Academy of Medicine of Belgium. He served on the editorial board of some 25 ophthalmic journals including *Documenta Ophthalmologica*, *Annales d'Oculistique*, *Ophthalmologica*, *Journal de Genetique Humaine*, *Excerpta Medica*, *Klinische Monatsblätter für Augenheilkunde* and *Historia Ophthalmologica Internationalis* (which he founded with J.P. Wayenborgh). In 1958 he was general secretary of the XVIII International Congress of Ophthalmology in Brussels. In 1970 he became president of the International Council of ophthalmology and the governing body of the International Federation of Ophthalmological Societies. He held this post until 1982. He received the following Medals: Gonin, Vogt, Axenfeld, Vail, Duke-Elder, Charamis, Helmholtz, Javal, and similar awards from some 35 universities and medical societies. *AJO* 1984,98:662-667; *BJO* 1985; 69 :236; *JPW*; *Arch Ophthalmol* 1984,102:1555-1556.



Jules François by Paul Henkind

Frank, Mortimer (1874-1919) American ophthalmologist and medical historian. He was born at Buffalo, N. Y, received the B. S. at the Boston Institute of Technology and the M. D. at the University of Illinois in 1901. Having practiced general medicine in Chicago for a year, he studied ophthalmology in Philadelphia, New York, Paris and Vienna. Returning, he settled as ophthalmologist in Chicago. He was a Fellow of the American Academy of Ophthalmology and Oto-Laryngology, ophthalmologist to the Michael Reese and other hospitals, secretary of The Chicago Society of Medical History, and editor of the same society's "Bulletin." In medical history the doctor was, in fact, an enthusiast, and his library of old and rare medical books and engravings numbered several thousand items. Among the more important writings of Dr. Frank we may mention "*John Taylor and Sir William Read*" (1905); "*The Resurrectionists*" (1907); "*Philip Syng Physick*" (1914); "*Caricature in Medicine*" (1911); "*Biographical Sketch of Some Representative Ophthalmic Surgeons*" (in Wood's "*A System of Ophthalmic Operations*," 1911, I, p.17); "*Medicine in English Literature Before the Eighteenth Century*" (1912); "*Medical Instruction in the seventeenth Century*" (1915); "*Discovery of the Secretary Glands*" (1916), and an English translation of Choulant's "*History of Anatomical Illustration*". Concerning the last named work, Dr. F. H. Garrison, of Washington, D. C., in a letter to "*The journal of the American Medical Association*," May 24, 1919, p. 1562, says: "*Dr. Frank's interest in the subject of medical illustration led him to undertake, in 1916, the translation of Choulant's 'History of Anatomical Illustration.' This book, published in 1852 is one of the classics of medical literature, a work of unsurpassed thoroughness, a sort of Gradus ad Parnassum for those who would essay the difficult heights which Choulant has scaled, for the earlier history of anatomy, from Leonardo to the time of Bichat, is mainly in the manuscript illustrations and the illustrated text. Choulant is a work of the highest scientific merit, but, in the original German it is not a readable book. Dr. Frank cleverly overcame the almost insurmountable difficulties of rendition by bisecting the long Choulantian sentences or dissecting out their meaning, so that his translation now stands, in clean-cut intelligible English, as something viable and readable for modern students.*" To the original work, long since out of print, the translator added completed biographies and an exhaustive compte-rendu of accumulated research work since the time of Choulant, a man-sized performance in itself. With new illustrations, this modernised Choulant, became a *vade mecum* for the professor of anatomy, the medical librarian and the art school." AJO 1919, 2:704-705

Frankenius, Johann (1590-1661) Swedish physician and physicist, who wrote "*De Oculo*" (1651), a purely philosophical work. He was born in the Province of Westermannland, settled in Upsala, and died in 1661. American Encyclopedia of Ophthalmology, Vol. 7, p.5287.



Benjamin Franklin

Franklin, Benjamin (1706-1790) An American genius, called by his enthusiastic compatriots, "*the greatest American*," "*the embodiment of the genius of common sense* *the darling of American biography*," "*the greatest American diplomat*," "*the first American scientist*" "*the first of American journalists*," "*the second Prometheus*," was also-a fact not commonly known-the inventor of bifocal spectacles. He was born in Boston, in the colony of Massachusetts. He was only in school four years. At the age of twelve he was apprenticed to his brother James, a printer, a man with whom he could never agree. In October 1723, he proceeded alone to Philadelphia, whence he was sent by Keith, the governor of Pennsylvania, on some diplomatic errand to England. Three years later, he returned to Philadelphia, where, in 1729, he purchased the "*Pennsylvania Gazette*"-a publication which he proceeded at once to make useful and famous. From that time onward, his success journalistically, scientifically, diplomatically, and politically-was uninterrupted. He invented the musical glasses. He made the first successful stove. He organized the first police force and the first fire company in the colonies. He was really the founder of the University of Pennsylvania, and, admittedly, of the American Philosophical Society. He was, as every schoolboy knows, the first to demonstrate the absolute identity of the natural "*lightning*" with the artificial "*electricity*." This discovery alone would, of course, have entitled him to rank among the immortals. We have no space in a work like this for even the barest list of Franklin's political and diplomatic activities. Franklin's scientific communications consist of pamphlets, reports and letters published mostly in *Gentleman's Magazine* and in *Philosophical Transactions of the Royal Society*. His bibliography was published by Leonard W. Labaree: *The papers of Benjamin Franklin*

New Haven 1959 ff. L.W.Labaree, R.L.Ketcham,H.C.Boatfield and H.H.Fineman *The Autobiography of Benjamin Franklin*, New Haven-London 1964; American Encyclopedia of Ophthalmology, Vol.7, p.5287-5289. *DSB* 5:129-139. JPW

Franz, John Charles Augustus (1807-1859?) German physician. He received his medical degree at Leipzig , Germany, practiced for a long time in Brighton,England, and wrote "*The Eye. A Treatise on the Art of Preserving this Organ*" (London, 1839).American Encyclopedia of Ophthalmology,Vol.7,p.5289. Albert

Fraser, Ian Comyn (1902-1990) Scottish ophthalmologist born at Inverness, Scotland. When he was 6 years of age, his family set sail, like many compatriots, for New Zealand. Ian grew up there, revelling in the unfettered colonial life. His lifelong enthusiasm for golf and bridge was kindled there. After Otago Boys' High School he graduated in medicine at Otago University in 1925. The two-year internship was succeeded along a route common amongst New Zealand medical men, travelling as ship's Surgeon to England. Postgraduate study included both ophthalmology at Moorfields Eye Hospital and otolaryngology. Edinburgh became important for him because it was there that he not only passed the Fellowship of the Royal College of Surgeons but met his wife to be, Margaret, sister of Dr. Grant Peterkin, who was later to become an eminent dermatologist. After a brief but fruitless sojourn back in New Zealand he returned to England to marry and settle, his first Consultant post being in the Channel Island of Guernsey. At the outbreak of World War II Fraser and his wife and son were evacuated when Germany invaded the only part of the United Kingdom to be occupied. After enlisting in the Royal Army Medical Corps he experienced the blitzkrieg in London and in 1942 was drafted to the Middle East. He rose in rank to Lt. Colonel and became advisor in ophthalmology, second in command to Stewart→Duke-Elder in the Iran-Iraq theatre centered on Baghdad. In 1945, because of his wife's illness, he was returned to the United Kingdom where he became advisor to Scottish Command. After demobilization in 1945, an application was successful for his final Consultant post at the Eye, Ear and Throat Hospital in Shrewsbury, England. His colleague was F. A. →Anderson, then secretary of the Oxford Ophthalmological Congress, and in 1947 Fraser succeeded him in that position. From this point his own commitment to this venerable institution (founded in 1909 by Robert→Doyne) was complete. He had become a member in 1931. During his period as secretary and editor of the Transactions from 1947 until 1964 the Congress flourished. After the tragic and untimely death of his wife in 1957 he immersed himself in the affairs of the Congress and retained that passion till his death. Fraser established lasting association with many congresses from around the world. He was wont to reminisce about the American ophthalmologists among whom were numbered Derrick→Vail and particularly Frank→Newell. His secretary and he went to endless trouble to ensure a warm welcome to the congresses and as much comfort as the essentially spartan Balliol College, Oxford, could furnish. His loyalty and service were crowned in 1965 and 1966 when he became the Congress's Master. Apart from his hospital duties, Fraser was eye surgeon to a number of schools for the blind in Shropshire. (These had been moved away from London at the outbreak of war and remained after the cessation.) His devotion to ophthalmology was extended after his formal retirement in 1967 when he became advisor for the Royal College of Surgeons touring England and beyond. One trip was to his New Zealand homeland with the ophthalmologist Philip Jameson Evans, one of his closest friends. *AJO* 1990,109:618-619

Fraser, Thomas Richard. A Scots pharmacologist, of some, if slight ophthalmologic importance, because of his "*Physiological Action of the Calabar Bean, Physostigma Venenosum*" (Trans.Roy.Soc.Edinb.Vol.XXIV). Fraser received his medical degree at Edinburgh in 1862, and became F. R. C. P. Edin. in 1869. The exact dates of his birth and death cannot be ascertained. American Encyclopedia of Ophthalmology,Vol.7,p.5289.

Fraunhofer, Joseph von (1787-1826) German optician, the inventor of a machine for polishing mathematically uniform lenses, of the stage-micrometer, of a form of heliometer, of certain kinds of achromatic lenses, and, finally, the first to observe very carefully the dark lines of the solar spectrum, which lines, in consequence, are called to this day by his name. He was born at Straubing, Bavaria. His father was very poor, and, till his 14th year, the subject of this sketch could neither read nor write. Having become apprentice to a lens and looking-glass maker, he studied at night the more scientific aspects of his occupation.

By teaching himself mathematics and physics, Joseph von Fraunhofer became the most important optician in the first quarter of the 19th century. Thanks to his manual skills and scientific genius, he mastered the art of producing instruments with unvarying properties. With the aid of the lines in the solar spectrum that now bear his name, he created the principles for the correct computation of achromatic lenses. From the diffraction of spectral colors using self-made diffraction gratings, he calculated the exact wavelengths of light in the various regions of the spectrum. The quality of the optics he produced led to pioneering discoveries in astronomy. In 1806 he became optician in the Mathematical Institute at Munich. In 1809, with three of his friends, he established an optical institute at Benedictheuern, Bavaria. In 1814-15 he published in the "*Denkschriften der Münchener Akademie*" a series of articles in which "*he laid the foundation of solar and stellar chemistry.*" He became Conservator of the Physical Cabinet at Munich in 1823. Today, due to his activities as an entrepreneur, Joseph von Fraunhofer is seen as the founder of the German optical industry. On his monument appear these words: "*Approximavit Sideral*" American Encyclopedia of Ophthalmology, Vol.7, p.5290. DSB 5:142-144; Siegmund Merz: *Fraunhofer's Leben und Wirken*, Landshut 1865; Eugen C.J.Lommel, ed.: *Joseph von Fraunhofer's gesammelte Schriften*, Munich 1888; Myles W. Jackson: *Spectrum in Belief-Joseph von Fraunhofer and the Craft of Precision Optics MIT Press*, Cambridge (MA); 2000. JPW

Frébault, J.F. French physician and ophthalmologist. The dates of his birth and death cannot be ascertained. He received his medical degree, however, at Paris in 1806, presenting as dissertation "*Sur les Hernies Abdominales.*" His only ophthalmologic writing is entitled "*Observation sur un Cristallin qui a passé par la Pupille dans la Chambre Antérieure de l'Oeil Droit, a la Suite de Cephalalgies Violentes et Chroniques, etc.*" (Journ.Général de Méd.,1817). American Encyclopedia of Ophthalmology, Vol.7, p.5290.

Freddo, Thomas F. (1949-) American optometrist and ophthalmic pathologist. Freddo was born in Hartford, CT and received his bachelor of arts degree from the University of Connecticut in 1971. He then assisted the ocular geneticist Dr. Louis Pierro who stimulated his interest in the eye. In 1976, he completed a Doctor of Optometry degree at The Massachusetts College of Optometry during which time he worked on the inherited tumor retinoblastoma with Dr. Noritsugu Mukai at the Retina Foundation, today's Schepens Eye Research Institute. Upon completion of his clinical training, Dr Freddo enrolled in the graduate program at The Boston University School of Medicine where his mentor was Dr. Giussepina Raviola. With Raviola, Freddo worked on the anatomy and physiology of the blood-ocular barriers and on the problem of providing structural correlates for physiological parameters of aqueous outflow. At the end of his graduate studies, Freddo was presented with an opportunity to complete a Fellowship in ophthalmic pathology at the Mallory Institute of Pathology in Boston. The following year he was appointed Assistant Professor of Ophthalmology and Pathology at Boston University School of Medicine where he joined the staff of the Eye Pathology Service, becoming Director of the Eye Pathology Laboratory in 1986. Throughout his career, Freddo has practiced optometry on the staff of Boston Medical Center Hospital. In his experimental work, Freddo took up the question of detailing the pathobiology of blood-aqueous barrier breakdown and reassembly in anterior uveitis, focussing on the processes of tight junction compromise and reassembly and its possible role in clinical recurrences of anterior uveitis. He continued his interest in glaucoma through collaborative studies on the effects of sulfhydryl agents on aqueous outflow with Dr. David Epstein at the Howe Laboratory of Ophthalmology. Working with a collaborative group including Drs. Roger Kamm and Mark Johnson at MIT and Dr. Stephen Bartels of the Retina Foundation, Freddo began to examine the kinetics of blood-aqueous barrier compromise in uveitis. Along the way, results from control animals pointed to the possibility that plasma-derived protein entry into the aqueous humor was not as described in classical texts. Over the next few years, using an array of methods, including MRI studies of animals with Dr. Nancy Kolodny and in human volunteers with Dr. Robert Bert, a new pathway for protein entry into the aqueous humor was documented which changed present day understanding of the blood-aqueous barrier. This new pathway raised the possibility that protein could be added to aqueous humor just as it enters the outflow pathways and might play a role in normal outflow resistance. For these studies, Freddo was presented with the *Glenn A. Fry Award*

for research excellence in 1992. Freddo currently serves as Professor of Ophthalmology, Pathology and Anatomy at The Boston University School of Medicine where he is Senior Consultant in Ophthalmic Pathology and Associate Director of The Massachusetts Lions Eye Research Laboratory. He serves on the adjunct faculty of The New England College of Optometry where he was awarded the 1997 Foster Namias Award for excellence in teaching. In 1996, Freddo served with Dr. Yoshi Kitazawa as Co-Chair of the Aqueous Humor Dynamics and Glaucoma Section for the XI Int'l Congress for Eye Res, also serving on ISER's Long Range Planning Committee. In 1996 Freddo became Treasurer of The International Society for Eye Research and headed up formation of the organization's finance committee. Freddo was the first optometrist to serve as a regular member of the Visual Sciences-A study section at NIH. He also served on the 5 member Glaucoma Panel for the 1997 National Eye Institute 5-yr plan. Within Academic Optometry, Freddo has Chaired the Vision Science Section of The American Academy of Optometry and Chaired both the Academy's Research Committee and its Awards Committee. He has served on the Editorial Board of Optometry and Vision Science, the journal of The American Academy of Optometry. He also served as the first Chair of the Human Biology Examination Committee of The National Board of Examiners in Optometry and in 1998 was selected as a Distinguished Practitioner in Optometry by The National Academies of Practice. With a longstanding interest in teaching and in fostering the development of young scientists, Dr. Freddo has served as Chair of the Student Travel Awards Programs of both The International Society for Eye Research and The American Academy of Optometry. Some examples of his many publications are "Barsotti, M.F., Bartels, S.P., Freddo, T.F. and Kamm, R.D.: *The source of protein in the aqueous humor of the normal monkey eye.* Invest. Ophthalmol. Vis. Sci. 33:581-595, 1992", "Freddo, T.: *Aqueous humor proteins: A key for unlocking glaucoma?* The 1992 Glenn Fry Award Lecture. Optom. and Vis. Sci. 70:263-270, 1993", "Johnson, M., Gong, H., Freddo, T.F., Ritter, N. and Kamm, R.D.: *Serum proteins and aqueous outflow resistance in bovine eyes.* Invest. Ophthalmol. Vis. Sci. 34:3549, 1993", "Kolodny, N., Freddo, T., Lawrence, B., Suarez, C., and Bartels, S.P.: *Contrast-enhanced MRI confirmation of an anterior protein pathway in the normal rabbit eye.* Invest. Ophthalmol. Vis. Sci. 37:1602-1607, 1996" and "Sit, A.J., Gong, H., Ritter, N., Freddo, T.F., Kamm, R.D. and Johnson, M.: *The role of soluble proteins in generating aqueous outflow resistance in the bovine and human eye.* Exp. Eye Res. 64:813-821, 1997". (Departments of Ophthalmology and Pathology, Boston University School of Medicine, 715 Albany Street, L-905 Boston, Massachusetts, USA 02118. phone:+1-617-638-4537, Fax: +1-617-638-5337, e-mail: tfreddo@bu.edu)(JPW)

Frédéricq, Léon (1851-1935) Belgian physiologist. He was born in Ghent and served in his youth as an observer for the experiences of the blind scientist Joseph Plateau on the *persistance of the visual impressions*. He wrote some papers of ophthalmic interest as on *chromatic function in the poulp* (1878), *prevention of eye lesions in the child* (1885) and the *reasons why the X rays are not visible* (1896).

Freiberg, Theodor (Dietrich) of (14th century). German. Theodor explains the rainbow as a consequence of refraction and internal reflection within individual raindrops. He accounts for the appearance of a primary and secondary bow but, following earlier notions, he considers colour to arise from a combination of darkness and brightness in different proportions. (JPW)

French, Hays Clifton (1840-1901) American homeopathic ophthalmologist. He was born in England of Irish extraction. In very early youth he removed with his father's family to America. His general education was received at the Western Reserve University, Cleveland, Ohio, and he was also graduated at the New York Ophthalmic Hospital in 1878. In 1879 he formed a partnership with Dr. A. C. Peterson, of San Francisco, widely known in homeopathic circles and a man of great ability. To Dr. Peterson, in fact, Dr. French was wont to ascribe an influence to which a large proportion of his own success was due. Dr. French was one of the founders of the Hahnemann Hospital College, at San Francisco, and ably filled the chair of ophthalmology in that institution until failing health compelled him to resign the position as well as to relinquish a large and lucrative practice. American Encyclopedia of Ophthalmology, Vol. 7, p. 5290-5291.

Frère Côme. A celebrated 18th century lithotomist and oculist. See Baseilhac, Jean.

Fresenius, Johann Baptist Georg Wolfgang (1808-1866). German botanist and physician, of some importance in ophthalmology. Born at Frankfurt, he studied medicine at Heidelberg and Giessen, at the latter institution receiving his degree in 1829. Immediately thereafter he settled at Frankfurt, and two years later became instructor in botany at the Senckenberg Medical Institute. Thirty-two years later his title was changed to "professor." Fresenius wrote a great deal on botany, but his only ophthalmologic writing was "*Ueber die Traumatische Amblyopie und Amaurose.*" American Encyclopedia of Ophthalmology, Vol. 7, p. 5291-5292.



Augustin Fresnel

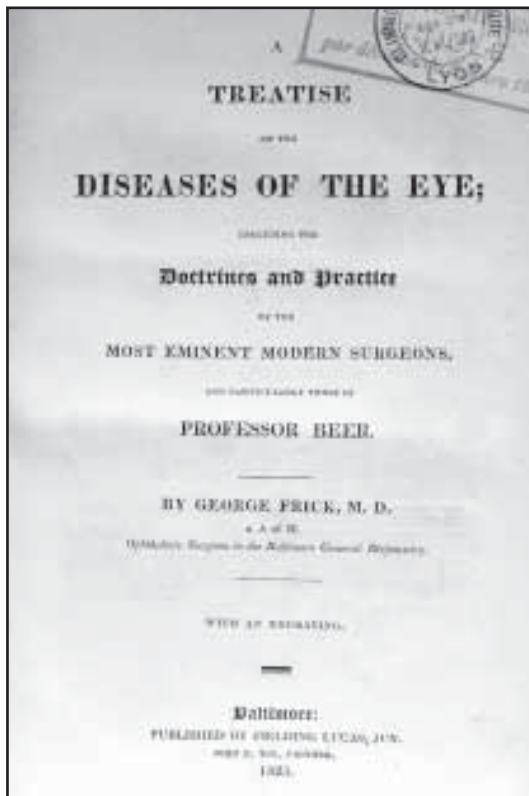
Fresnel, Jean Augustin (1788-1827) A celebrated French military engineer and physicist, who established finally and absolutely the truth of the undulatory theory of light. He also very much enlarged our knowledge of diffraction and of the interference of light—both of which phenomena had been discovered by Grimaldi. He was born at Broglie, Department of Eure, Normandy, France. He studied at the Central School at Caen, at the Polytechnic School, and at the Ecole des Ponts-et-Chausées. He became successively Engineer in the Department of Vendée and Drôme, Engineer in Paris, Examiner at the Polytechnic School, and Fellow of the Academy. He received the Rumford Medal of the Royal Society in 1827, and shortly afterward died at Ville d'Avray, near Paris. American Encyclopedia of Ophthalmology, Vol. 7, p. 5292.

Frey, Jr., Walter Guernsey (1896-1965) American ophthalmologist. Frey was graduated from Columbia University in 1916 and from the College of Physicians and Surgeons in 1919. He interned first at the Methodist Episcopal Hospital in Brooklyn and then at the Manhattan Eye, Ear and Throat Hospital in New York. With this latter institution he maintained a close affiliation until the age of 65 years when he relinquished the position of surgeon director. He was professor of ophthalmology at New York University and director of the Eye Service at St. Luke's Hospital, New York, and Queens General Hospital, Jamaica. He served as chairman of the Section of Ophthalmology of the New York Academy of Medicine in 1948. Frey, like many of his generation, was primarily interested in clinical ophthalmology. He was a keen observer and was possessed of an acute and logical mind. AJO 1965,60:1138-1139

Freytag, Johann Conrad (?-1738) Swiss surgeon, of considerable importance in ophthalmology, being generally called the discoverer of membranous cataract. The date of his birth is unknown; the place, however, was Höngg, a village near Zürich. Before 1699 he was well established in Zürich, and was widely known as an operator, especially on the eye. Freytag left no ophthalmologic writing, but his son, Johann Heinrich →Freytag described his father's cataract procedures in a work entitled "*De Cataracta*" (Strasburg, 1721). According to this work, the elder Freytag "extracted" a cataract on three occasions. The "cataract," however, in each instance, was only a membranous cataract, and it was removed by means of a small hook, passed through a tiny incision. The first extraction in the modern sense was performed by →Daviel in 1748. American Encyclopedia of Ophthalmology, Vol. 7, p. 5292.

Freytag, Johann Heinrich (?-?) Swiss surgeon, who paid considerable attention to ophthalmology. He was the son of the Zürich surgeon, J. C. Freitag (or Freytag), received his medical degree at Strasburg, wrote "*De Cataracta*" (in which he described the cataract operation of his father) and died in 1725—thirteen years before his father. Freytag was one of the less important opponents of the new doctrine concerning the nature and location of cataract. Throughout antiquity, the middle ages, and well on into the modern period, it was firmly believed that a cataract is a deposit of corrupt and inspissated "humor" in a (wholly imaginary) space between the pupil and the lens. Quarré, about 1643, first theoretically taught the true doctrine, and a German, Rolfinck, in 1656, confirmed his theory by anatomical dissection. The matter seemed soon after, to have sunk into oblivion, until, in fact, →Brisseau and Maître→Jan, just after the beginning of the 18th century, re-discovered this most important truth, and compelled the scientific world to grant it recognition. Before, however, the recognition was accorded, a bitter contest arose concerning the question. The opposition to the new theory was led by Thomas →Woolhouse, an English oculist resident in Paris. Among his followers was Freytag, the subject of this sketch. American Encyclopedia of Ophthalmology, Vol. 7, p. 5292-5293.

Frick, George (1793-1870) American ophthalmologist. The first American to publish a book on ophthalmology, and perhaps the first to restrict his practice to diseases of the eye: on these grounds often called "*The Father of American Ophthalmology.*" He was born in



The first American Textbook of Ophthalmology.

Baltimore, Md.,. After an excellent education in the liberal arts and sciences, he entered the Medical Department of the University of Pennsylvania, receiving his degree in 1815. In 1817 he was admitted to practice by becoming a licentiate of The Medical and Chirurgical Faculty of Maryland. For a number of years he studied abroad, paying considerable attention to ophthalmology. In Vienna he became acquainted with the great →Beer, by whom he seems to have been profoundly influenced throughout the remainder of his life. In 1819 he returned to Baltimore, began to practice ophthalmology, and seems to have had extraordinary success. Some years later, however, he became very deaf, and, in 1840, abandoned his practice entirely, and removed to Europe, returning to America from time to time for the purpose of visiting relatives and friends. He died in Dresden, Germany. His most important journal articles are as follows: "*On the Meloe Vesicatorium*" (1815); "*Observations on Cataract and the Various Modes of Operating for its Cure*" (Am.med.Recorder,Phila.,1820-21); "*Observations of the Various Forms of Conjunctivitis*" (Ibidem 1821); "*Observations on Artificial Pupil and the Modes of Operating for its Cure*" (1823). The only book he ever wrote was-that above referred to, entitled "*A Treatise on the Diseases of the Eye; Including the Doctrines and Practice of the Most Eminent Modern Surgeons and Particularly those of Prof.Beer*" (Baltimore, 1823; 2d ed., with notes by Richard Welbank, London, 1826). Though based on the books of Beer, this *first American work on ophthalmology* contained a great deal of original matter and was written in a clear, forceful, even, beautiful style. On the whole, it was an appropriate beginning for American ophthalmography. American Encyclopedia of Ophthalmology, Vol.7,p.5293-5294.Albert

Fricke, Johann Karl Georg (1790-1841) German military surgeon of slight ophthalmologic importance. Born at Braunschweig the son of a physician and professor of chemistry and physics, he studied medicine both at Braunschweig and at Giessen, at the latter institution receiving his degree in 1810. He then proceeded to Berlin, and completed his surgical training under Carl Ferdinand→Graefe. He practised mostly at Hamburg, but was often engaged in military service in connection with various expeditions. Together with →Dieffenbach and Oppenheim he published the "*Zeitschrift f. d. Gesamte Medicin.*" He died at Naples, whither he had gone in search of health. His only ophthalmologic writing was "*Die Bildung Neuer Augenlider (Blepharoplastik) nach Störungen.*" etc.(Hamburg 1829,4 plates).American Encyclopedia of Ophthalmology,Vol.7,p.5293. Albert

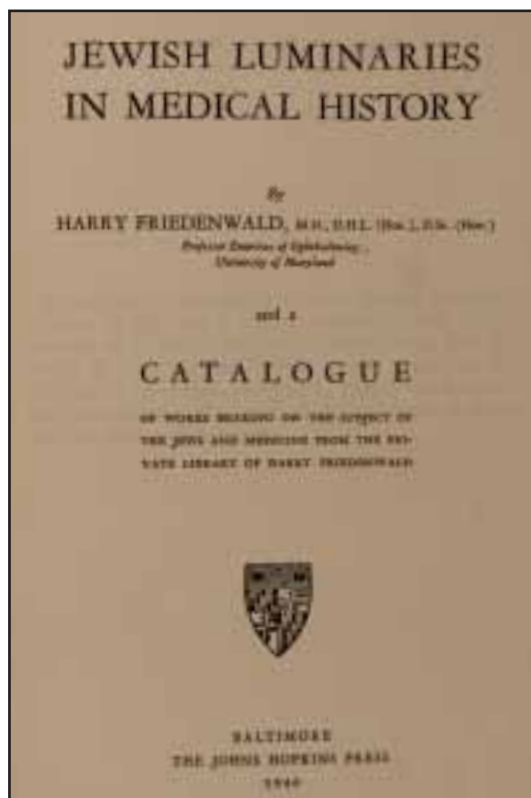
Fridenberg, Percy H. (1868-1960) American ophthalmologist. He received his B.A. degree from Columbia University in 1886 and, two years after graduation, while a student of medicine, he wrote the Alma Mater official song, Sans Souci.He was graduated in medicine in 1891 from the then German Kaiser Wilhelm University at Strassbourg. Under the influence of a professor of ophthalmology, Laqueur, he early developed an interest in the eye, and his inaugural dissertation was on the subject, "*Ueber die Stern Figur der Krystall Linse.*" After settling in New York, he interned at Mt. Sinai Hospital, and at the time of his death was the oldest alumnus of Mount Sinai Hospital. He joined the staff of the New York Eye and Ear Infirmary, and most of his early contributions to ophthalmology appeared in the New York Eye and Ear Reports. Later his papers appeared in the *Archiv fuer Augenheilkunde*, *Transactions of the American Ophthalmological Society*, *Journal of the American Medical Association*, *Archives of Ophthalmology*, *Transactions of the American Academy of Ophthalmology and Otolaryngology*, *Transactions of the American. Otological Society*, *New York Medical Journal* and *Long Island Medical Journal*. (In his early years he was a triologist, that is , an eye, ear, nose and throat practitioner and a member of the American Otological Society.) In the 1920s he became interested in endocrinology in relation to the eye, and contributed the chapter on

"Disorders of metabolism and internal secretions in relation to the eye" to Lewellys Barker's *System* (1923). In the 30s his interest centered on injuries of the eye. He was professor of traumatic ophthalmology at the New York Post-Graduate Medical School and Hospital and illustrated his lectures with his own drawings of fundi. He was a water-colorist and was an active member of the New York Physicians Art Club. Another one of his hobbies was the history of the City of New York and he lectured on the subject frequently at educational institutions and clubs. Later he developed an interest in philology to which he brought not only a mastery of English literature but of French and German as well. Some of his papers were written in German. This led him to a study of the history of human speech and he worked on a book under the intriguing title, *From Hand to Mouth*. His preparation for this task was a life-long interest in neurology, psychology, and philosophy, as is evidenced by a paper written by him about 1905 on *Teleology and interpretation of nystagmus and vertigo*. He was certificated by the American Board of Ophthalmology in 1919. He was a vice president of the American Academy of Ophthalmology and Otolaryngology and a member of the American Ophthalmological Society. He was also one of the founders and a past president of the New York Society for Clinical Ophthalmology. He had built up a fine ophthalmic library which he distributed in his later years to libraries and friends.

Friebis, George (1847-1912) American ophthalmologist of German origins. Born at Edelsheim, Germany, he removed with his father to France in 1848, and, a few years later, to America. His general education was received in the Philadelphia public schools, his medical training from the Jefferson Medical College, where he received his degree in 1879. He at once became assistant to Prof. Wm. Pancoast, then Professor of Anatomy at Jefferson. Later he became successively Demonstrator of Anatomy, Lecturer on Diseases of the Skin, and assistant to Dr. Lawrence Turnbull, then Professor of Otology and Rhinology in the Jefferson school. In 1884, deciding to devote himself exclusively to ophthalmology, he became assistant to the famous professor of ophthalmology at Jefferson, William Thomson. In this position he served for eleven years, during the last six of which he was Clinical Chief and Lecturer on Diseases of the Eye. In his private practice he confined his work almost exclusively to errors of refraction. For many years he was assistant editor of "*The Medical Bulletin*," and to this and certain other journals he contributed a number of ophthalmologic articles.

Friedenwald, Aaron (1836-1902) American ophthalmologist and medico-economist, father of Harry F. He was born at Baltimore, Maryland. His early education was received at the school maintained by the Baltimore Hebrew Congregation. At the age of about fifteen, however, he had to relinquish his studies in order to accept a situation as bookkeeper in a clothing store. Finding the position uncongenial, he decided, when twenty-one years of age, to study medicine. For a while he studied, after the custom of the day, with a preceptor, Dr. N.R. Smith. Entering, just a little later, the University of Maryland, he received from that institution his professional degree in 1860. He then went to Europe, where he studied ophthalmology, as well as general medicine, in Berlin, Prague, Vienna, Paris and London. While abroad he was chiefly influenced by Arlt and von Graefe, hence, for the remainder of his life, though he never wholly gave up general medicine, his heart was mostly in his work as an ophthalmologist. For a long time he was the only ophthalmologist in Baltimore. In 1873 he was made professor of diseases of the eye and ear in the College of Physicians and Surgeons at Baltimore. In this capacity he labored with conspicuous success for twenty-nine years. In 1889 he was elected president of the Medical and Chirurgical Faculty of Maryland. He was also the first president of the Maryland Ophthalmological Society. Always interested in medical economics especially in the part thereof relating to the communal life of physicians, he it was who, to all intents and purposes, created, in 1890, the Association of American Medical Colleges. "It was on his motion, as a representative of the College of Physicians and Surgeons, that the Association of Baltimore Medical Colleges...became a national organization at Nashville." (*Annals of Ophthalmology*, October, 1902.) American Encyclopedia of Ophthalmology, Vol. 7, p. 5296-5303 [with a list of 55 articles published between 1861 and 1902]

Friedenwald, Harry (1865-1950) American ophthalmologist, son of Aaron and Bertha Stein Friedenwald, born in Baltimore where he resided until his death. He received his



A.B. from the Johns Hopkins University in 1884 and his M.D. degree from the College of Physicians and Surgeons, Baltimore, in 1886. After postgraduate work in Berlin and Vienna, he returned to Baltimore and entered the practice of ophthalmology and otology. He became associated with the College of Physicians and Surgeons where he became the head of the department of ophthalmology in 1902. He continued as head of the department of ophthalmology after the college merged with the University of Maryland until 1929 when he was made emeritus professor. Friedenwald was a member of the American Ophthalmological Society of which he was president in 1937 and chairman of the Section of Ophthalmology of the American Medical Association in 1931. He was a member of the Ophthalmological Society of the United Kingdom and many other local and national societies. He was a visiting surgeon to many of the Baltimore hospitals but his chief interest was in the Baltimore Eye and Ear Hospital where he was an active member of the staff and board until his death. In 1930, he gave the Doyne lecture at the Oxford Ophthalmological Congress and, in 1941, the deSchweinitz lecture in Philadelphia. Friedenwald made many contributions to ophthalmic and otological literature. The total number of papers relating to ophthalmology was about 115. There were 20 on otological subjects. He also wrote about 50 articles dealing with historical and religious subjects. Notable among his articles upon ophthalmic subjects were those relating to retinal changes, especially those caused by diabetes and vascular lesions. In addition to his professional interests, he was active in the Zionist movement and was the author of "*The Jews in Medicine*" 2 vols. 1944-46, 2nd ed. 3 vols. NY 1967 [GM 6501.1] and "*Jewish Luminaries in Medical*

History." Baltimore 1946, reprinted 1967 & 1999. He also wrote: *Life, Letters and Addresses of Aaron Friedenwald*, Baltimore 1906. AJO 1950,33:1304-1305. See also his biography by Alexandra Lee Levin: *Vision: a Biography of Harry Friedenwald*, (with a preface by Simon E. Sobeloff) Philadelphia 1964. JPW

Friedenwald, Jonas Stein (1897-1955) American ophthalmologist. The name of Friedenwald has long been associated with ophthalmic progress. Harry Friedenwald had created for himself an authoritative position in medical ophthalmology; in 1930 he gave the Doyne Memorial Lecture on Pathological Changes in the Retinal Blood Vessels in Arteriosclerosis and Hypertension. His son, Jonas, attained greater fame in many branches of ophthalmology, excelling both as a clinician and as a pathologist, but much more so in the basic sciences of physiology and biochemistry on which ophthalmology is founded. In these fields he was unique in the United States and had for many years occupied an unchallenged position in that country as the greatest authority on the scientific aspects of ophthalmology, particularly the mechanism of the formation and the dynamics of the intra-ocular fluid. In his wide scientific interests, his experimental ability, and his mature judgement, he had few equals in any country in the world. Friedenwald entered Johns Hopkins University, where he took his B.A. degree in 1916, and graduated in medicine in 1920. Thereafter he went to Harvard University where he graduated M.A. in 1922. He returned to Johns Hopkins Hospital, and in 1923 at a surprisingly young age became instructor in ophthalmic pathology in its medical school. When the Wilmer Institute of Ophthalmology was opened in 1926 he was one of the first of its staff. In 1931 he was made Associate Professor of Ophthalmology at Johns Hopkins Medical School where he laboured unceasingly and enthusiastically in both the wards and the laboratories until his death. During his working life he wrote tirelessly and was the author of more than 140 scientific papers as well as his *Pathology of the Eye* (1929). Many honours came his way. In the United States, he won the Research Medal of the American Medical Association (1935), the first Proctor Medal (1949), and the Howe Medal of the American Ophthalmological Society (1951). In 1952 he was presented with the Donders Medal in Holland, and he was to have been given the Doyne Medal at the 1956 meeting of the Oxford Ophthalmological Congress. Although he lived for ophthalmology in its widest aspects, Friedenwald had many other interests. A lover of literature, painting, and music, he was the worthy custodian of the magnificent collection of rare medical books and manuscripts which he inherited from his father. Equally aware of the world of affairs, he took an

intense interest in education and all aspects of social progress and in his later years he spent much care in the academic development of Israel. BJO 1955,39:768

Friedlaender, Ludwig Hermann (1790-1851) German military surgeon of a little ophthalmologic importance because of his "*De Medicina Oculorum apud Celsum Commentatio*" (1817). He was born at Königsberg, Prussia, studied both there and at Berlin, settled in Halle, there became privat-docent in medicine, in 1819 extraordinarius and in 1823 ordinarius of theoretic medicine.

Friemann, Werner (1911-) German ophthalmologist. MD Münster 1936. University lecturer at Hamburg University 1950 under →Marchesani , 1953 director of the Bremen Eye Clinic, professor 1956. Employed Barraquer Eye Institute at Barcelona. Director city clinic Hamburg. Wrote: "*Beiträge zur Ätiologie d.zentr. Netzhauterkrankungen*" (in *Sammlung zwangl. Abh.a.d.Geb.d.Augen-heilkunde*. 1953. Many articles in *Archiv für Gewerbehygiene und Gewerbepathologie*. Kürschners Gelehrten- Kalender 1966,p.603 . F. Hollwich Ophthalmologenverzeichniss 1964,p.116-117(extensive).

Fritsch. An almost wholly unknown privat docent at Freiburg, who wrote: 1. *Die Bösartigen Schwammgeschwülste des Auges und seiner Nächsten Umgebung*. Freiburg, 1843.) 2. *Über die Wirksamkeit einiger Arzneimittel gegen Augenleiden, Besonders gegen Gewisse Formen der Augen-Entzündung*. in:Jour.d.Chir.u.A., vol.36,pp.62-150 and 223-273, 1847.)

Fronmüller, Georg Tobias Christoph (1809-1889) German physician and ophthalmologist, inventor of the trial-case,-i.e., the case of trial lenses, frames, etc., substantially as used today (1915). The dates and the place, or places, of his birth and death cannot be ascertained. He was the son of a physician, and he practiced at Fürth. For the earliest accounts of his excellent and memorable invention, see *Jour.d.Chir.u. Augenheilk.*, Vol. 32,p.174-187,1843, and *Annales d'Oculist* Vol.x, p.283, 1843. He wrote: *Die Konvexgläserkur zur Heilung gewisser Formen des schwarzen Staares* Nürnberg 1857. American Encyclopedia, Albert.

Froriep, Robert (1807-1861) German pathologist, of a slight ophthalmologic importance because of his "*De Corneitide Scrofulosa*"(1830). He was born at Weimar and received his medical degree at Bonn in 1828, studied also in Paris, and in 1830 made his home in Jena. He later resided in Berlin and Weimar. At the latter place he died, June 14, 1861.

Frost, Albert D. (1889-1945) American ophthalmologist, born in Pittsburgh, Pennsylvania. He received his preparatory education in the Pittsburgh schools, and in 1912 was graduated from the University of Pittsburgh with the B.S. degree. He then worked in the steel mills for three years before he decided to enter medical school. Twice he enlisted in the Army and was twice sent back to medical school, and was graduated with the M.D. degree from the Western Pennsylvania Medical College in 1919. Following internship at Bellevue Hospital, Cornell Division, New York City, he spent a year and a half as resident in the New York Eye, Ear, Nose, and Throat Infirmary. He became associated with the University of Pittsburgh and practiced ophthalmology in his home city until he moved to Columbus in 1924, to become an associate of Hugh Beatty. Frost was a serious thinker. He possessed a keen clinical sense and a dexterous hand to execute his plans. He was a resourceful and adroit surgeon. His memberships included the International College of Surgeons, the American Academy of Ophthalmology and Otolaryngology. He served 10 years as a director of the Ohio Commission for the Blind, the last as its president. In his last years he was mainly interested scientifically in the study of papilledema and he made several contributions on this subject. His published papers were not numerous, but of the highest quality and influence. AJO 29,1945:358-359

Frost, William Adams (1853-1935) British ophthalmologist. Frost was born the son of Charles Maynard Frost, a surgeon in practice in Ladbroke Square, London. He was educated at the Kensington Grammar School and entered St. George's Hospital in 1870. As a student he had a successful career and was a prizeman of the school in 1874, in which year he took his qualification and was house surgeon to the hospital, his colleague in office being the Sir William Bennett. After his term as house surgeon was over he became a clinical assistant at the Central London Ophthalmic Hospital, and having taken his F.R.C.S.Eng. in 1878, he succeeded McHardy as Ophthalmic Registrar at St. George's. At

this time Brudenell→Carter had been in sole charge of the ophthalmic department for some years, and in 1881 Frost was elected Assistant Ophthalmic Surgeon to St. George's. In 1883, he joined the staff of the Royal Westminster Ophthalmic Hospital, and he was also for some years ophthalmic surgeon to the Victoria Hospital for Children. He won the Middlemore Prize of the British Medical Association in 1882 and again in 1886. On Carter's resignation of the Senior post in 1892, Frost naturally succeeded to the vacancy. He had served as junior for eleven years, and though Carter may not have been an easy person to work with at all times the pair got on capitally. Frost himself recorded his gratitude to Carter in his obituary notice of his old chief. The two were very different. Carter, with his incisive tongue and brilliant literary qualities, did not suffer fools gladly and in his teaching, was, as Frost said, apt to assume a knowledge of the subject on the cart of his audience, which was seldom as great as he seemed to imagine. Frost on the other hand, was an excellent teacher of elementary matters, best in the wards and outpatient department, where an occasional humorous sally would enliven the discourse; but as a lecturer his rapid delivery made his remarks less stimulating. Frost retired from practice in 1906 and went to live at Forest Row in Sussex; but he served during the latter part of the war as visiting ophthalmic surgeon to the London County War Hospital at Epsom. Frost's *The fundus oculi, with an ophthalmoscopic atlas* published in 1896, 2nd ed. 1901, was for years the best atlas on the market and it has been used for teaching all over the world. In the preparation of this work he had the assistance of A.W. Head and the plates, reproduced by colour lithography, are still, in the opinion of many, the finest plates of the fundus that have ever been produced. With Brudenell Carter he wrote a small handbook of ophthalmic surgery which was published in Cassell's Clinical Manuals series: *Ophthalmic Surgery* London 1887, American edition Philadelphia 1888 and he contributed a chapter to his brother-in-law, H. E. Juler's *A Handbook of Ophthalmic Science and Practice* London 1884. He also authored *The Jenner Centenary an Inaugural Address at St. Georges Hospital, London 1896* and *An Artificial Eye, with some Practical Suggestions as to its Use* (no date). Frost's ophthalmoscope is a beautiful instrument. It is rather more complicated in structure than that designed by Morton, having two wheels set close together by which the batteries of + and - lenses are moved to the sight hole. Early in 1918 Frost had the misfortune to lose an eye from secondary glaucoma; later the remaining eye was affected with primary glaucoma, which, in spite of treatment, left him very gravely handicapped. He was a pathetic figure at Hospital gatherings, at which he was a very regular attendant. BJO 1935,19:697-699. Albert. Lancet 1935,2:1096; Brit med J. 1935,2:928. JPW

Frothingham, George Edward (1836-1900) American. Born at Boston, Mass., he received his liberal education at Phillips Academy, Andover. For a time he taught school. Then he began to study medicine with Dr. W. W. Greene, Professor of Surgery in the Medical Department of Bowdoin College. Later, he proceeded to Ann Arbor, Mich., where he received the degree of M.D. in 1864. Returning to Massachusetts, he practiced for three years at North Becket. Then he returned to Ann Arbor, in order to accept the demonstratorship of anatomy and the prosectorship of surgery in his alma mater. Deciding to devote himself to ophthalmology and oto-laryngology exclusively, he studied for a time in the ophthalmic and aural hospitals of New York. Then, returning to Ann Arbor, he was appointed full professor to the chairs of ophthalmology and otology, then just created. As a matter of convenience to the faculty, he taught, at times, in addition to his own branches, anatomy, materia medica, and therapeutics. He was a genial man and much beloved by his confreres and he was for many years, in close touch with the large student body. He was a member of numerous medical societies. In 1874 he was President of the Washtenaw County Medical Society, in 1889 President of the Michigan State Medical Society. He also held a number of appointments as ophthalmologist and otologist to various hospitals in Ann Arbor and Detroit; and, from 1869 to 1871, was an editor of the Michigan University Medical Journal. In 1860 he married Lucy E. Barbour. Of the union were born four children, of whom one, George Edward, Jr., is (1915) a well-known ophthalmologist, being ophthalmic surgeon to the Harper Hospital, Detroit, and Clinical Professor of Ophthalmology in the Detroit College of Medicine. American Encyclopedia of Ophthalmology, Vol. 7, p. 5307-5308.

Fryer, Blencowe E (1837-1911) American ophthalmologist of the middle west. He was born in Somerset Co., England, the son of an English army officer. He lost his father at a very early age, and, when only seven years old, removed with his widowed mother and

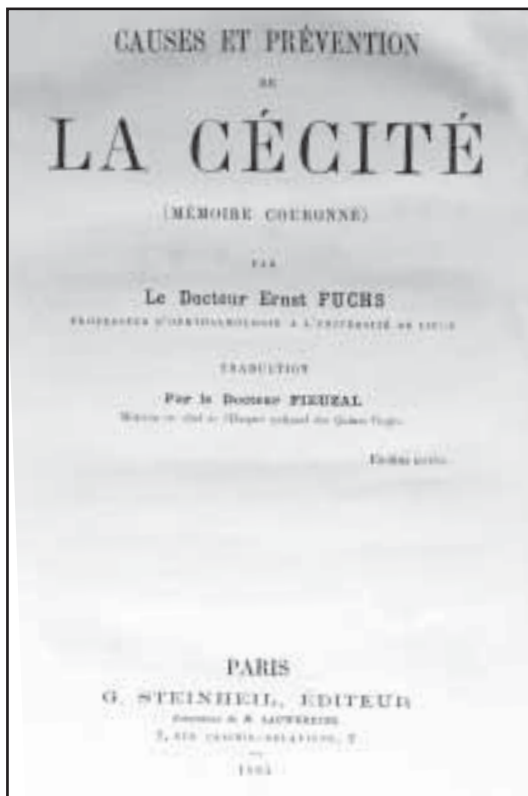
five brothers and sisters to America. Here the family settled in Philadelphia, and, in 1859, at the University of Pennsylvania, young Fryer received the degree of Doctor in Medicine. Until the civil war broke out he served as interne in a Philadelphia hospital. On May 28, 1861, he was appointed Assistant Surgeon in the Union Army, and, from that date till 1887, he was engaged in active U. S. army service. In May, 1887, however, he was ordered before the appropriate board in San Francisco, and was there retired from active service on account of disability. Doctor Fryer then removed to Kansas City, Mo., where he practiced ophthalmology and oto-laryngology exclusively, until about a week before his death. At the time of his death he was Professor of Diseases of the Eye and Ear in the Kansas City Post-Graduate Medical College. He had also held the chair of the same subjects in the old Kansas City Medical College, the University Medical College, and the Medico-Chirurgical College. For more than eight years Dr. Fryer had charge of the Department of French Literature in the well-known journal, *Ophthalmology*. American Encyclopedia of Ophthalmology, Vol. 7, p. 5308-5309.

Fuchs, Adalbert (1887- ?) Austrian ophthalmologist, son of Ernst Fuchs. He was born in Vienna, receiving his MD in 1919. He became lecturer at the Vienna University in 1922 (His thesis was *Zur Pathogenese und Anatomie der Netzhautsystemen*). Fuchs worked first in the Institute for pathological anatomy under Paltauf, later in the surgical clinic under von Eiselsberg to become assistant of von Hess in Munich in 1914. He was named Professor of ophthalmology in 1929. Fuchs wrote about 130 papers, and following books: *Atlas der Histopathologie des Auges* (2 vols.) Vienna 1923-27 (also an English edition); the 16th, 17 and 18th edition of his father's *Lehrbuch der Augenheilkunde* (1939, 1944 & 1945); *Die Erkrankungen des Augenhintergrundes* (1943); *Wie ein Augenarzt die Welt sah* (1946) (a Biography of his father); *Diseases of the Fundus Oculi*, 1949; with B. Samuels: *Clinical Pathology of the Eyes* 1952 and *Geography of Eye Diseases* 1962. JPW



Ernst Fuchs shortly after leaving Liège for Vienna

Fuchs, Ernst (1851-1930) Austrian ophthalmologist of Vienna, father of Adalbert Fuchs. He received his M.D. there in 1874, having studied under Billroth. He was assistant to Arlt from 1876 to 1880. The great Ernst Fuchs has been, in the beginning of his career and on recommendation of his master von →Arlt, professor of ophthalmology and of sensory physiology at the Liège University from 1881 to 1885. He spoke very easily foreign languages (also English) and was also in Liège, much appreciated for his knowledge, his kindness and his surgical skill. He had for his in-patients 10 beds in the old Bavière (Bavaria) hospital. He installed under the roof two small laboratories wherein he spent much time for histological studies. He published during his Liège period on much subjects including the *Purkinje entoptic phenomenon*, *corneal cauterisation*, *corneal edema in glaucoma*, *optic nerve anomalies*, *uveal sarcoma*, *normal ocular anatomy*, *optic atrophy*, *causes of blindness and neonatal ophthalmia* (in German and in French). He refused to be appointed in Prague, but could only accept to succeed to Jäger in his native town Vienna. He wrote in his memories: "*Ich ging schweren Herzens von Lüttich weg, wo ich mich sehr glücklich gefühlt hatte: welch schöne Stadt und Umgebung, gute Freunde und reichliche Zeit zu wissenschaftlichen Arbeit!*". In 1885, he succeeded Jaeger as professor of ophthalmology and director of the eye clinic at the University of Vienna, retiring in 1915. Among his many contributions to the pathology of



Fuchs' book on Cause and Prevention of Blindness written during his stay in Liège (Belgium)

the eye were those in his monographs on sarcoma of the uveal tract (1882), blindness (1885), and the histopathology of sympathetic ophthalmia (1905); his improvements to jaeger's test-types; and his great *Lehrbuch der Augenheilkunde* (1889), which passed through many editions and translations. *Das Sarcom des Uvealtractus*. Wien 1882. *Die Ursachen und die Verhütung der Blindheit. Gekrönte Preisschrift*. Wiesbaden 1885. *Causes et prévention de la cécité*. Paris 1885. French edition of previous entry, published the same year. *The causes and the prevention of blindness*. London 1885. English edition of *Die Ursachen und die Verhütung Lehrbuch der Augenheilkunde*. Leipzig und Wien 1889. It went through eighteen German editions between 1889 and 1945, and ten British and American editions between 1892 and 1933; it was also translated into French, Japanese, Spanish and Chinese. *Manuel d'ophtalmologie ...* Paris 1892. First French edition of previous entry. *Text-book of ophthalmology*. New York 1892. First English translation of the *Lehrbuch*. Albert. Verriest 41. *Klin Monatsbl f. Augenheilk.* 1930,85:830.AJO 1931,14:138.JPW

Fuchs, Leonhart (1501-1566) One of the greatest botanists and general practitioners of medicine of the Renaissance period. He was born at Memmingen, Bavaria. In 1519 he entered the University of Ingolstadt, at which institution, after an extremely brilliant career, he received the degree of Master of Arts in 1521. He then pursued the study of medicine in the same institution, and received his professional degree in 1524. For the two years following, he practiced medicine in Munich, the next two he passed as Professor of Medicine in Ingolstadt, and then became physician-in-ordinary to the Markgrave George of Brandenburg in Anspach. This position he held for five years. He was ennobled by the Emperor Charles

V. His literary activities began in 1529. Among his numerous writings, we can mention: "*Errata Recentiorum medicorum LX numero, Adjectis eorum computationibus*" (Hagenau, 1530). "*Cornarius Furens*" (Basel, 1533); "*Hippocratis Epidemion Liber.Sextus Latinitate Donatus et Luculentissima Commentatione Illustratus*" (Basel, 1537). "*Claudii Galeni Aliquot Opera*" (3 vols.,Paris, 1549-54).*De Historia Stirpium Commentarii*. Basel 1542 [GM1808]. In 1538 he published an ophthalmologic work, entitled, "*Tabula Oculorum Morbos Comprehendens,*" which seems to be no longer extant and *Ein neues hochnutzliches Büchlin von erkantnus der Kranckheyten der Augen* Strassburg 1538. In his "*Institutiones Medicae,*" first published in 1556, he exhibits a chapter entitled "*Vitiorum Oculi Succincta Explicatio.*" A work in German, entitled "*Alle Krankheiten der Augen durch den Hochgelehrten Doctor Leonhart Fuchsen*" (Strassburg, 1539) is, declared by J.→Hirschberg to be nothing but a badly garbled translation of the above-mentioned chapter from the "*Intitutiones*", issued by a trio of quacks-"Herrn Jürgen Vogtherren, Canonicus und Pfarrherren zu Feuchtwangen, und Conradi und Bartholomei Vogtherren " who had, in fact, altered Fuchs's work to suit their own purposes. Fuchs himself was a man of high ideals and spotless character. *American Encyclopedia of Ophthalmology*, Vol.7, p.5310. Albert

Fujikado, Takashi (1954-) Japanese Ophthalmologist, Professor of the Department of Applied Medical Engineering, Osaka University, Graduate School of Medicine. He received his MS in applied physics from Tokyo University in 1978, and MD degree from Osaka University in 1982. He carried out basic research on eye movement in connection with the central nervous system as a research associate at Indiana University, USA (1983-1984) and worked with NODA Hiroharu (Saccadic eye movement evoked by microstimulation of lobule VII of the cerebellar vermis of macaque monkeys. *J Physiol* 394: 573-594, 1987). He studied Ophthalmology at the Osaka University under Prof. MANABE Reizo: he received his Doctor of Medical Sciences in 1988.(thesis: *The role of cerebellum for the regulation of saccadic eye movement*). He has been in the present position since 1998. His specialty in Ophthalmology is Pediatric Ophthalmology, Ophthalmic Optics and Neuro-Ophthalmology, and he has many publications: some examples are (Visual function after foveal translocation with scleral shortening in patients with myopic neovascular maculopathy. *Am. J. Ophthlalmol.* 125 : 647-656, 1998, and The

effect of nitric oxide synthase inhibitor on form deprivation myopia. *Curr Eye Res* 16: 993-996, 1997). His professional activities are extensive and he is a member of many National and International Societies. He is a member of ARVO (Association for Research in Vision and Ophthalmology) and the International Strabismological Association. He is on the Board of Trustees of the Japanese Ophthalmological Society (JOS) (1998-), Japanese Society of Strabismus and Amblyopia (1998-), Japanese Society of Ophthalmic Optics (1998-) and many other Ophthalmological Societies. The Japanese Society of Strabismus and Amblyopia granted him the Yuge Award (1996) for the excellence of his work. (Department Applied Medical Engineering, Osaka University Graduate School of Medicine, room G4, 2-2 Yamadaoka, Suita, Osaka, 565-0871, Japan. Phone: +81-6-6879-3941 Fax +81-6879-3948, E-mail: fujikado@ophthal.med.osaka-u.ac.jp)

Fujinaga, Yutaka (1923-) Japanese Ophthalmologist, Professor Emeritus of Tottori University. He graduated from Kyushu University in 1947, studied Ophthalmology at the Department of Ophthalmology of Matsue Red Cross Hospital, and worked as the Head of the Eye Clinic of Shimane Central Hospital until the end of 1949. He then became the Assistant to Prof.→KANDORI at Tottori University and was promoted to the Lecturer in 1953 and to the Assistant Professor in 1956. He submitted his thesis to Kyushu University (thesis: *Experimental studies of the effects of pituitary and thyroid hormones on blood glutathione*. No. 1: *J. Jpn. Ophthalmol. Soc.* 56: 1151, 1952; No. 2. *ibid.* 56: 1174, 1952; No. 3. *ibid.* 56: 1178, 1952, No. 4. *ibid.* 56: 1338, 1952), and received his Doctor of Medical Sciences in 1953. He extended his studies as a visiting Fellow at Chicago University Hospital (1956). He was appointed the Professor and Chairman of the Department of Ophthalmology in 1970 and served until retirement in 1989. During his tenure, he served as the Director of the University Hospital (1980-1984). His research interest covered a wide area, e.g. Cataract, Glaucoma, Retinal Pigmentary Degeneration, Diabetes, Radiation injuries etc. He wrote 14 books and 262 original articles: some examples are in the followings: "*Clinical application of gonioscopic findings to evaluation of glaucoma operation*, *Am. J. Ophthalmol.* 50: 631, 1960", "*Quantitative evaluation of the oscillatory potential in diabetic retinopathy*. *Yonago Acta Medica* 16:83, 1972", "*Electron microscopic studies on the anterior chamber angles of normal and glaucomatous eyes*. *Yonago Acta Medica* 19:181,1975", "*Early receptor potential in primary retinitis pigmentosa*. *Conc. Ophthalmol.* XIII, 1978". He is the Founding member of the Japan Society of Cataract Research and has been on the Executive Board of Trustees since 1975. He also served as the Executive Board of Trustees of the Japan Eye Bank Association since 1971. In recognition of his meritorious service, the Government of Japan conferred on him the Third Order of the Rising Sun in 1999.(SM)



Hidetaro Fujita

Fujita, Hidetaro (1875-1960) Japanese Ophthalmologist. He graduated from Tokyo University in 1902 and studied Ophthalmology under Prof. J. Komoto. He was then appointed the Professor of Ophthalmology of Taipei Medical School (now National Taiwan University in Taipei). During his tenure, he studied Ophthalmology in Wuerzburg University during 1909-1911. On his return to Taipei, he submitted a thesis on the retinal pigment epithelium to Tokyo University and was granted Doctor of Medical Science. In 1917 he was appointed the Professor and Chairman of the Department of Ophthalmology of Okayama University. In 1922 he was promoted to the Dean of the Faculty of Medicine; he served as the President of the 29th Congress of the Japanese Ophthalmological Society held in Okayama in 1925. He then retired from the University and practiced in the city of Okayama. (SM)



Kenzo Fujiwara

Fujiwara, Kenzo (1885-1962) Japanese Ophthalmologist, son-in-law of Tetsutaro. He graduated from Kyoto University in 1911, and studied Ophthalmology under Prof.→ASAYAMA Ikujiro. In 1917, he was appointed the Professor of Taipei Medical School as the successor of FUJITA Hidetaro, until 1926 when he was invited to Kyoto Prefectural Medical University as the Professor and Chairman of the Department of Ophthalmology. In the same year he submitted a thesis to Kyoto University and received his Doctor of Medical Science. He served as the Chairman of the Department for 22 years and trained many brilliant Ophthalmologists. He delivered a special lecture on "*Chronic Dacryocystitis*" at the 51st Congress of the Japanese Ophthalmological Society in 1947. (SM)

Fujiwara, Takaaki (1937-) Japanese Ophthalmologist, Professor of Ophthalmology of Kyorin University. He graduated from Keio University in 1962 and studied Ophthalmology under Prof.→KUWAHARA Yasuji and Prof. →UEMURA Yasuo: he received his Doctor of Medical Sciences from the University in 1970 (thesis: *Studies of glutathione in the lens*. J. Jpn. Ophthalmol. 72: 1744, 1968; *ibid.* 74: 113, 1970). He is the Professor and Chairman of the Department of Ophthalmology of Kyorin University since 1986. His research interest is in the crystalline lens and cataract with emphasis on biochemistry, image analysis and epidemiology. His many publications include "Epidemiology of cataract: Clinical evaluation with retro-illumination and photography. Dev. Ophthalmol. 15:16, 1987" and "Acute loss of vision in a juvenile diabetic cataract. Current Aspects in Ophthalmol. 11:454, 1992. He is currently the Chief Editor of the Journal of the Japanese Society of Cataract Research. (Department of Ophthalmology, Kyorin University School of Medicine, 6-20-2, Shinkawa, Mitaka, Tokyo 181-0004, Japan. phone: 81-42-247-5511, fax: 81-42-246-9309) (SM)



Tetsutaro Fujiwara

Fujiwara, Tetsutaro (1869-1954). Japanese Ophthalmologist. He graduated from Okayama Medical School (now Okayama University) in 1889 and studied Ophthalmology with Prof. Y. OHNISHI and Prof. K. OGAWA. For 3 years from 1899 to 1902, he studied in Freiburg and received Doktor Medicine, his the dissertation entitled " *Gibt es eine endogene toxische Wundentzündung am Auge?*". Klin. Mbl. Augenheilkd: 40:229,1902. On return to Okayama, he served as the Professor of Ophthalmology at Okayama University for 3 years. He then moved to Takamatsu Red Cross Hospital as the first Head of the Eye Clinic. In 1907 he founded the Eye Hospital in Okayama, and served the Medical Association of Okayama as the President from 1915 to 1940. (SM)



Hidetoshi Fujiyama

Fujiyama, Hidetoshi (1903-1977). Japanese Ophthalmologist. He graduated from Hokkaido University in 1931, studied Ophthalmology under Prof. S. OCHI. He was appointed the Professor and Chairman of the Department of Ophthalmology of Hokkaido University in 1946, the position he held until retirement in 1966. He was then given the title Professor Emeritus of Hokkaido University. He published pioneering works of successive cultures of trachoma pathogens in chick embryo: he delivered a special lecture "Studies of trachoma virus" at the 70th Congress of the Japanese Ophthalmological Society. He was also a pioneer in electron microscopic studies and reported "Electron microscopic studies of ocular tissues" at the 65th Congress of the Japanese Ophthalmological Society in 1961. He served the Society as a Council Member and an Executive Council Member for many years. (SM)

Fukada, Yoshitaka (1955-) Japanese Biochemist working on the eye, Professor at the Department of Biophysics and Biochemistry, Graduate School of Science, The University of Tokyo. He graduated from Tokyo University Faculty of Science in 1978, and received Ph.D. Degree in Biophysics in 1983. He is in the present position as above since 1995. His research interest has been in biochemistry and molecular biology of visual transduction, and has published many papers that include "Farnesylated gamma-subunit of photoreceptor G-protein indispensable for the GTP-binding. Nature 346:658, 1990", and "Primary structure of chicken cone visual pigments; Vertebrate rhodopsins have evolved out of cone visual pigments. Proc. Natl. Acad. Sci. USA. 89:5932, 1992". He received the Yoshida Memorial Award from the Japanese Society for Comparative Physiology and Biochemistry (1992) and the Biochemistry Award from the Japanese Biochemical Society (1992). He serves as a member of the Committee of the Biophysical Society of Japan since 1998, Council of the Japanese Biochemical Society since 1997 and also he served as a Council Member for the Japanese Society for Comparative Physiology and Biochemistry (1992-1995). (Department of Biophysics and Biochemistry, Graduate School of Science, The University of Tokyo, 7, Hongo, Bunkyo-ku, Tokyo, 113-8655, Japan; phone: & fax: 81-3-5802-8871, e-mail: sfukada@mail.ecc.u-tokyo.ac.jp) (SM)

Fukado, Yoshinao (1926-) Japanese Ophthalmologist, Professor Emeritus of Showa University. He graduated from Tokyo University in 1949, studied Ophthalmology at the University Hospital under Prof.→HAGIWARA Hogara and received his Doctor of Medical Sciences in 1959 (thesis: *Studies of phosphate metabolism of the cornea using P32*. No. 1: J. Jpn. Ophthalmol. Soc. 59: 1319, 1955, No.2: *ibid.* 60: 617, 1956, No. 3: *ibid.* 62: 2338, 1958, No.4: *ibid.* 63: 4375, 1959). He worked as the Chief of the Department of

Ophthalmology of Kanto Rosai Hospital (1959-1978) and was appointed the Professor and Chairman of the Department of Ophthalmology of Showa University in 1978: he served in this position until retirement in 1992. He is a leading specialist in ocular traumatology and developed a surgical method of treatment for optic canal fracture (Pathogenesis and treatment of optic canal fracture. Special report to the 71st Congress of the Jpn Soc. Ophthalmol. J. Jpn. Ophthalmol. Soc. 71: 1909, 1967; Diagnosis and Surgical Correction of Optic Canal Fracture after Head Injury, Ophthalmologica Vol. 158 (Suppl), p.307-314, 1969). He wrote "*Ophthalmic Trauma*" Kanehara Publ. Co. Tokyo, 1978. He also played a key role in introducing Intraocular Lens Implantation in Japan: he served as the Secretary of the Japanese Society of Cataract and Refractive Surgery. He served as a Councillor to the Japanese Ophthalmological Society (JOS) (1975-1994) and is Honorary Member of the JOS, Japanese Society of Traumatology and Occupational Medicine and Japanese Society of Ophthalmic Surgeons. He is a member of American Society of Cataract and Refractive Surgery. (SM)

Fukala, Vincenz (1847-1911) Austrian ophthalmologist. Originator of an operation for high myopia which was first reported and published in 1891. Born in Zholkva, Ukraine, he received his M.D. in 1871 at the University of Vienna and settled in that city as ophthalmologist, working first as assistant to Arlt. Fukala devised several new surgical procedures, including "Fukala's operation," the removal of the lens for relief of severe myopia; an operation for ulcer: *Heilung Höchstgradiger Kurzsichtigkeit nebst Angabe einer leichtfasslichen Methode zur schnellen Berechnung der Axenlänge, optischen Constanten des Auges* Leipzig 1896. Albert, The Ophthalmoscope, 1911, p.878.

Fukuda, Masatoshi (1925-) Japanese Ophthalmologist, Professor Emeritus of Ryukyu University. He was born in Tokyo as a son of practicing Ophthalmologist, and graduated from Tokyo University in 1949, studied Ophthalmology at the University under Prof.→HAGIWARA Hogara. He submitted his thesis (*Studies on the ganglion cells in the root of the IIIrd, IVth and VIth cranial nerves*. J. Jpn. Ophthalmol. Soc. 59: 958, 1955; ibid. 60: 318, 1956; ibid. 61: 51, 1957; ibid. 61: 283, 1957; ibid.61: 775, 1957) to Tokyo University and received his Doctor of Medical Sciences in 1957. He was promoted to the Lecturer in 1959, and to the Assistant Professor in 1964. In 1981, he was invited to be the Professor and Chairman of the Department of Ophthalmology of Ryukyu University and worked until retirement in 1991. During his tenure, he served as the Director of the University Hospital (1987-1991). He is the leading specialist in Japan of diabetic retinopathy and he has published 20 papers on this subject in National and International Journals: some examples are "*Blood fibrinolytic activity and fibrinogen concentration in diabetic retinopathy*. Eye, Ear Nose and Throat for Ophthalmologist. 51: 266, 1972", "*Diabetic retinopathy with juvenile onset diabetes*. J. Jpn. Diabetes Soc.18: 656, 1975", "*Diabetic retinopathy in Japan*. Proc. First Inter. Symp. Metabolic Eye Diseases. ed. H. Haddad, p. 327, 1974", "*Natural history of diabetic retinopathy and its treatment in Japan*. Proc. Second Meeting of Diabetes Mellitus in Asia, ed. S. Baba et al., p. 225, 1975", "*Blood coagulation in proliferative diabetic retinopathy*. Conc. Ophthalmol. 23, p. 880, Excerpta Medica, 1978" and "*A new classification of diabetic retinopathy in Diabetic Microangiopathy*: Proc. Internatl. Symp. of Diabetic Microangiopathy, Japan Medical Research Foundation Publication No.2: p.39, 1983". His classification of stages of diabetic retinopathy has been widely accepted and is most commonly used in practice. He delivered the Japanese Ophthalmological Society (JOS) Award lecture at the 93rd Congress (Clinical management of diabetic retinopathy. J. Jpn. Ophthalmol. Soc. 93: 873, 1989), and also a special lecture at the 40th Congress of the Japanese Society of Clinical Ophthalmology in 1986 (Indicated stages of photocoagulation and vitrectomy for proliferative diabetic retinopathy. Jpn. J. Clin. Ophthalmol. 40: 575, 1989). For excellence of his research, the Japanese Society of Diabetology granted him the Sakaguchi Prize in 1995. He is Honorary Member of the JOS and the Japanese Diabetes Society.(SM)

Fukuda, Yutaka (1943-) Japanese Neurophysiologist, Professor of Physiology, Department of Physiology and Biosignaling, Graduate School of Medicine, Osaka University. He graduated from Osaka University Medical School in 1967, studied at the Department of Neurophysiology in the Graduate School of Medicine under the supervision of Professor Kitsuya Iwama and received his Doctor of Medical Sciences in 1973 (thesis: *Differentiation of principal cells of the rat lateral geniculate body into two*

groups: fast and slow cells). He was appointed the Professor of Physiology of Osaka University Medical School in 1990 and due to change of the University System, he is in the present position as above since 1997. He has published more than 150 original articles and has written 6 books: some examples are “*Retinal distribution and central projections of Y- and X- and W-cells of the cat’s retina*. J. Neurophysiol. 37: 749, 1974” and “*Naso-temporal overlap of crossed and uncrossed retinal ganglion cell projections in the Japanese monkey (Macaca fuscata)*. J. Neurosci. 9: 2353, 1989”. He was invited to deliver a special report to the Centennial Congress of the Japanese Ophthalmological Society in 1996 (*Optic nerve regeneration by nerve transplantation*. J. Jpn. Ophthalmol. Soc. 100: 956, 1996). He holds key positions in many professional Societies, and they are Standing Secretary of the Physiological Society of Japan, Councillor of Japan Neuroscience Society, Director of Neuro-ophthalmology Japan and Advisory Committee for Programming and Management of the National Institute for Physiological Sciences. He has many editorial assignments and they are, Vision Research Neurobiology Section editor (1992-1998), Restorative Neurology and Neuroscience (1989-1994) and the Japanese Journal of Ophthalmology (1997-). Since 1997, he has served as the Supervisor of the Project “*Studies on factors controlling regeneration of retinal circuitry and optic nerve*” supported by Strategic Promotion System for Brain Science from Science and Technology Agency of Japan. He is a member of the Society for Neuroscience and the Association for Research in Vision and Ophthalmology. (Department of Physiology and Biosignaling, Graduate School of Medicine, Osaka University, 2-2 Yamadaoka, Suita, Osaka, 565-0871, Japan. phone: +81-6-6879-3610, fax: +81-6-6879-3617, e-mail: yfukuda@phys2.med.osaka-u.ac.jp) (SM)



Giichi Fukushima

Fukushima, Giichi (1910-1997) Japanese Ophthalmologist. He graduated from Osaka University in 1935, studied Ophthalmology under Prof. B. Nakamura. He was granted Doctor of Medical Science from Osaka University in 1940. In 1944, he was appointed Professor of Ophthalmology of Tokushima University: he retired from this position in 1949 and practiced in the city of Tokushima. He served as the President of Tokushima Ophthalmologists Association, of Tokushima Eye Bank and many other organizations. His outstanding contribution to Ophthalmology is represented by many publications of the History of Ophthalmology in Japan. The last and most significant book is “*Ko Ryosai and his era*” (a famous Ophthalmologist in the early 19th Century) where the process of the introduction of modern Ophthalmology in Japan is described in detail. At the 80th Anniversary of the Japanese Ophthalmological Society, he gave a special lecture “*Nagasaki in the History of Ophthalmology in Japan, in particular attention to Philipp Franz von Siebold*”. Due to his contribution, he was named Emeritus Member of the Japanese Ophthalmological Society and Japanese Society of Medical History. (SM)

Funahashi, Tomoya (1916-) Japanese Ophthalmologist, Professor Emeritus of Jikei Medical College. He graduated from Jikei Medical College in 1942 and studied Ophthalmology at Kanazawa University under Prof. →KURACHI Yoshi and also at the Department of Pathology under Prof. →WATANABE Shiro. He submitted his thesis in 1948 (*Experimental studies on regeneration of stromal collagen of the cornea*. J. Jpn. Ophthalmol. Soc. 52:78, 1948) and received his Doctor of Medical Sciences. He served as the Assistant Professor of the University (1948-1949) and moved to the Head of the Ophthalmology Department of Tosei Hospital of Seto City (1949-1960). He then worked as a Research Fellow at the State University of New York with R. Troutman (1960-1967). He was appointed the Professor of Ophthalmology of Jikei Medical Collage in 1965 and was promoted to the Chairman of the Department of Ophthalmology in 1971 and served in this position until retirement in 1984, whereupon he was invited to be the Director of Tokyu Hospital and served until 1991. He has served as the Councillor to the Japanese Ophthalmological Society (JOS), and was the Treasurer and Chairman of the Finance Committee for the 23rd International Congress in Kyoto (1978). His research interest covers a wide area including ophthalmic pathology, surgery, cataract, corneal diseases, and he delivered the JOS Award Lecture at the 84th Congress of JOS in 1980 “*Studies of vital staining of the eye*. J. Jpn. Ophthalmol. Soc. 84: 1826, 1980”. He has been the editor of the Journal “*Ganka – Ophthalmology*” over 10 years. He also served various Government Committees, e.g. Council for Medical Treatment of Patients afflicted by the Atomic Bomb. He is Honorary Member of JOS and of Korean Ophthalmological Society. (SM)

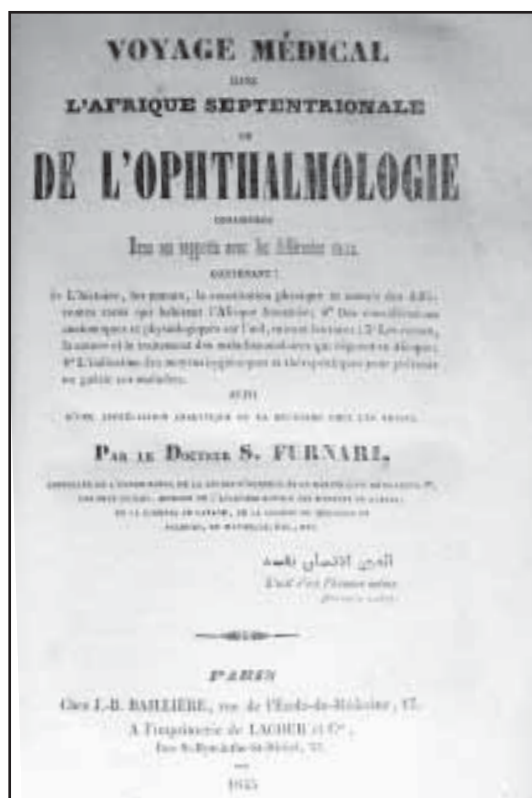


Shinichi Funaishi

Funaishi, Shinichi (1887-1966) Japanese ophthalmologist. He graduated from Kyoto University in 1912 and studied Ophthalmology under Prof. ASAYAMA Ikujiro, and was invited to Akita Red Cross Hospital as the first Head of the Eye Clinic in 1914. After 5-years working in Akita, he was promoted to Professor of Ophthalmology of Manshu Medical College (now China Medical University, Shenyang, People's Republic of China). He went to Berlin University in 1924 and studied under Prof. Hoffmann, and he published 2 papers in the German Language: *Ueber das Zentrum der Sehrichtungen*. v. Graefe Arch. Ophthalmol. 116:126, 1925, and 117:296, 1926. He submitted the thesis to Kyoto University and received his Doctor of Medical Science. He retired from the University in 1943 due to illness. He trained many Chinese Ophthalmologists and they played leading roles in the Northeastern District of China.(SM)

Funder, Wolfgang (1918-) Austrian ophthalmologist. MD 1943 in Vienna. 1946-49: from 1946-55 : 2nd University clinic Vienna under →Lindner. University lecturer at Graz 1959 under Hruby. About 31 articles of which 5 relating to the history of ophthalmology in *Klinische Monatsblätter f. Augenheilkunde* 1950-63. Editor of *Sitzungsberichte der Österreichische Ophthalmologische Gesellschaft*. 10 scientific movies between 1955 and 1964. *Kürschners Gelehrten- Kalender* 1966,p.624 & 1987,p.1198 ; F. Hollwich *Ophthalmologenverzeichnis* 1964,p.119-20.

Furnari, Salvatore (1808 –1866) Born in Sicily, he received his medical degree at Palermo, and, in 1834, was licensed to practice in France. In 1841 he was sent by the French Government to Algiers on some political mission, during which he made many ophthalmic observations of the native tribes, including the absence of myopia among the Kabyles. In 1848 he returned to Palermo in order to accept the professorship of ophthalmology-a position which he held till his death in 1866. His only important ophthalmologic writing is "*Essai sur les Causes, la Nature et le Traitement des Ophtalmies en Afrique*" (Paris, 1841) Other books he authored are : *Essai sur une nouvelle méthode d'opérer la cataracte*. Paris 1839 ; *Traité pratique des maladies des yeux* Paris 1841 ; *Voyage médical dans l'Afrique septentrionale* etc.. Paris 1845 ; *Practical observations on cataract and closed pupil* London 1815. American Encyclopedia of Ophthalmology, Vol.7, p.5320. Albert



Furnari's book on Africa and Ophthalmology

Fyodorov, Svyatoslav N. (1927-2000) Russian ophthalmologist, businessman, and politician. As a child, Fyodorov dreamed of becoming a pilot, but at age 18 he lost a foot in an accident. This event changed his goals, and Fyodorov decided to devote his life to medicine. He graduated from the medical institute in Rostov-on-Don in southern Russia, and started his career in ophthalmology, which was, in his opinion, the best medical specialty. For several years, he worked in hospitals in provincial Russian towns improving his ophthalmic-surgical skills. His inquisitive mind and aspiration to be an innovator in ophthalmology led him to search for new surgical techniques. In 1960, Fyodorov implanted an artificial crystalline lens for the first time in the Soviet Union. This was the start of his multifaceted career. His innovations in cataract surgery, operations for the treatment of glaucoma, and development and adoption of microsurgery methods established him as a leader in ophthalmology in his country. However, his rise was not an easy one because the medical establishment was not always in agreement with him on the accuracy of his methods and procedures. His methods of myopia surgery

(keratotomia) brought him gratitude from his patients, but these techniques were not always approved by his colleagues. Fyodorov eventually proved that he was right in working with this particular technique. Fyodorov was not only an eye surgery pioneer, but also an outstanding organizer and businessman, which was very unusual in the Soviet Union. He managed to create in Moscow the Research Institute of Eye Microsurgery, which includes a hospital, research laboratories, and places for the manufacture of artificial crystalline lens and special instruments for microsurgery. Moreover, he established many eye microsurgery clinics and hospitals in different Russian towns and cities, as well as in Italy, Poland, Germany, Spain, Yemen, and the United Arab Emirates. He equipped a special ship as an ophthalmologic clinic that cruised the Mediterranean and Indian Oceans.

Fyodorov was a practicing capitalist, accepted former Soviet president Mikhail Gorbachev's "Perestroika," was known as a politician, created his own political party, and in 1996, ran for president of Russia. He was an outstanding Russian figure of the 20th century. Arch Ophthal 2000,118:1594



Gaal, Gustav (1818/19?-1870) Hungarian Physician, who devoted considerable attention to the eye and ear. Born at Eisenstadt, Hungary, he received his medical degree and practised for a time in that city. In 1848, because of political troubles, he fled from Vienna, where he happened to be at the time, to Hungary. Afterwards he lived in Turkey, where he turned Mohammedan and became a Turkish military surgeon under the name of Veli-Bey. For a time he resided at Saraievo, Bosnia. Among Gaal's writings the only one of ophthalmologic interest is "*Physikalische Diagnostik und derer Anwendung in der Medicin, Chirurgie, Oculistik, etc.*" (Vienna, 1848). American Encyclopedia of Ophthalmology, Vol. 7, p. 5326

Gailey, Watson (1882-1959) American ophthalmologist. Gailey was born at Ashland, Illinois, the son of Watson and Elizabeth Sinclair Gailey. After graduating from the College of Physicians and Surgeons of the University of Illinois he served at Cook County Hospital in 1904-1905 and at the Illinois Eye and Ear Infirmary and for the Illinois Steel Company in 1906-1907 and began practice in Bloomington in 1908. In 1912-1913 and again in 1924 under A.→Pillat he furthered his studies at the University of Vienna. Later, in 1931, he went to India in the company of Joseph Hompes of Lincoln, Nebraska, where in the blistering heat of Baluchistan and Afghanistan the two of them sweated it out removing myriads of cataracts. He had served as a captain in the Army Medical Corps during World War I and it was at the invitation of the British Army that he went to India. In 1946 Dr. Gailey flew to Guatemala as consultant for an expedition of doctors and entomologists for the Pan-American Sanitary Bureau to study onchocerciasis, a common cause of blindness among the coffee workers. Gailey lectured at many medical meetings, taking part in the American Academy Instruction Course, the Mid-Winter Course in Los Angeles, and many others. He wrote a major contribution being the *Eye Digest* published by the Watson Gailey Eye Foundation. Meanwhile as his volume of work and staff grew at the clinic, the Watson Gailey Eye Foundation was granted a charter of incorporation by the State of Illinois and his clinic was approved for eye residency by the American Board of Ophthalmology. In addition the Foundation pays the fees of two Illinois normal students preparing to teach persons who are visually handicapped. It also established an eye-bank at Mennonite Hospital, working in co-operation with other eye-banks in the country. Gailey brought great credit to himself, his relatively small community, and to ophthalmology, as a specialist and as a humanitarian. Gailey was a mason, shriner, American legionnaire, and a member of A.O.A., and Phi Rho Sigma. AJO 1959, 47:599-600

Gaillard, François Lucien (1805-1869) A distinguished French surgeon, inventor of the eyelid-suture -which bears his name and which is often used today(1915). Born in Poitiers, France, he received his professional degree at Paris in 1829, presenting as thesis, "*Considérations sur l'Utilité et l'Abus des Théories en Médecine, Suivies de Propositions Chirurgicales.*". Resettled for practice in Poitiers and became a distinguished surgeon. He wrote a large number of works of a general, but none of an ophthalmologic character. American Encyclopedia of Ophthalmology, Vol. 7, p. 5326.

Galand, Albert (b. 1938-) Belgian ophthalmologist. Galand obtained his M.D. degree in 1964 in Liège and specialized in ophthalmology in the same city under Roger→Weekers. He remained half-time consultant in the public hospitals. He is a well known specialist in anterior segment surgery and more particularly in *intraocular lens implantation into the capsular bag (Galand-lens)*, treatment of *after-cataracts via pars plana approach*, *keratoplasty for the treatment of corneal perforation* etc. He organized courses of ocular surgery. (Verriest)

Gale, James (1833-1907) English inventor and electrician, born near Plymouth; he lost his sight at seventeen, but was very successful as a medical electrician and inventor. He was founder of the South Devon and Cornwall Institution for the Blind. He became Fellow of the Chemical Society and of Geological Society in 1866. The following year he became the degree of Doctor of Philosophy at the University of Rostock. Gale received probably the largest fee ever known to be paid for medical electrical attendance-viz., \$250,000. See