

the volume which ,his calamity had called forth, and, becoming shortly afterward stone blind, he purposely sought and soon found “the greater darkness still” in the battle of Crécy.American Encyclopedia of Ophthalmology,Vol.7,p.5668-5670.

Gye, Caroline *see* **Mann, Dame Ida Caroline (1893-1983)**



Tateo Gyotoku

Gyotoku, Tateo (1862-1945) Japanese Ophthalmologist and Congressman. He graduated from Kumamoto Medical School in 1886, and studied Ophthalmology under Prof. KOMOTO Jujiro at Tokyo University. On his return to Kumamoto, he taught Ophthalmology at Kumamoto Medical School. He studied in Germany during 1900-1901, in Berlin under Prof. J. Hirschberg, in Breslau under Prof. Uthoff, in Leipzig under Prof. Sattler, and in Vienna under Prof. Fuchs. After returning home, he founded Gyotoku Hospital which is maintained today by his descendants. He was elected to Congress as a member in 1917, and played the central role in the enactment of the Trachoma Prevention Act in 1919. This law was the basis for public health of the eye for almost half a century, the law having been repealed in 1983, since this blinding disease disappeared in Japan. (SM)



Haab, Otto (1850-1931) Swiss ophthalmologist born in Wulflingen, Switzerland. Haab received his M.D. in 1875 at the University of Zürich, where he worked under Johann Friedrich→Horner, who’s successor as professor of ophthalmology (1886-1919) he became. He invented the Haab Ophthalmoscope. Haab was interested in pathological anatomy of the eye and made progresses especially in treatment of eye injuries; he identified a phenomenon later called Haab’s reflex (Korrespondenzblatt Schw. Ärzte 1886, 16:153), and designed a giant magnet for extracting foreign bodies from within the eye (1892). Haab wrote many books: *Die wichtigsten Störungen des Gesichtsfeldes* Breslau 1893. (in Hugo Magnus: *Augenärztliche Unterrichtstafeln*, Heft 5); *Atlas und Grundriss der Ophthalmoskopie* München 1895; American edition: *An atlas of ophthalmoscopy* Translated and edited by Ernest Clark. New York 1895; English edition *Atlas and epitome of ophthalmoscopy and ophthalmoscopic diagnosis* London 1901, American ed.Philadelphia 1905; French edition, translated by A.Terson & A.Cuénod: *Atlas manuel*



Otto Haab



Otto Haab’s popular Atlas on ophthalmoscopy.

d’ophthalmoscopie, Paris 1896; *Atlas der Äusseren Krankheiten des Auges München* 1899, 4th ed.1910, American edition: *Atlas of the external diseases of the eye* Philadelphia 1899; *Das Glaukom und seine Behandlung* (in *Slg. Abh.Augenheilkunde* Vol.4/issue 6-7) Halle 1902; *Skizzenbuch zur Einzeichnung ophthalmoscopischer Beobachtungen* 2.edition München 1895. Haab also contributed to Graefe-Saemisch’s *Handbuch der*

Augenheilkunde (2nd edition) and to Norris and Olliver's *System of the Diseases of the Eye*. Albert.Fischer. AJO 15:71.JPW

Haaf, Gerhard ten (1720-1791). Dutch surgeon and ophthalmologist. Haaf was born in 1720, he served for a time in the army, then settled in Rotterdam. Here in 1788 he was appointed Professor of Surgery in the College of Surgery. He was a brilliant teacher and a writer of some ability. His chief ophthalmologic writing was, "*Korte Verhandeling Nopens de Nieuwe Wyze om de Cataracta te Genezen.*" American Encyclopedia of Ophthalmology, Vol.8, p.5673.

Habershon, S. H. (1858-1915) British general physician from London, who paid considerable attention to ophthalmology. Son of the celebrated Dr. Samuel Osborne Habershon (author of "*Diseases of the Stomach.*" etc.) he became secretary of the *Ophthalmological Society of the United Kingdom* (from 1894-1897) and a member of the Council of the same body (1897-1900). He was for years the physician of William E. Gladstone, and, at the time of his death was senior physician to the Hospital for Consumption and Diseases of the Chest, at Brompton. American Encyclopedia of Ophthalmology, Vol.8, p.5673. The Ophthalmoscope, 1915, p.221.

Habrahyim. (fl.middle of the 13th century) A Jewish Saracen of Spain. He is specially remembered for having cured Alphonse de Poitiers, Count of Toulouse (1220-1271), of ocular affection, the exact nature of which is not known. On the recommendation of Raymond Gaucelm, Seigneur de Lunel, the count sent to Aragon for Habrahym, enclosing a safe conduct. Habrahym was immensely wealthy, and received large fees. American Encyclopedia of Ophthalmology, Vol.8, p.5674.



Genseki Habu

Habu, Genseki (1762-1848). Famous Japanese Ophthalmologist in the Edo Era, before the systematic import of Western Ophthalmology. He studied Dutch Medicine and served as the Ophthalmologist for Tokugawa Shyogun. He learned from Philipp Franz von SIEBOLD how to produce the mydriatic drug and became the first Ophthalmologist to use it for the treatment of eye diseases in Japan. According to FUKUSHIMA Giichi (see his Biography), the drug was the extract of Hyostyamus. He trained many Ophthalmologists and they played key roles in the evolution of modern Ophthalmology in Japan. (SM)

Haddock, Charles W.(1856-1918) American ophthalmologist of Beverly, Mass. Was born in Beverly, and after a preliminary course of Study at the Massachusetts College of Pharmacy, he attended the Harvard Medical School, where he graduated with the class of 1879. From 1880-'82 he studied at Heidelberg and Vienna, and returning to America, practiced at Beverly with his father until the latter's death. Then he studied the eye, ear, nose, and throat in Boston, Philadelphia, and New York; and, beginning with 1892, devoted himself for nineteen years exclusively to ophthalmology and otolaryngology at Salem and Beverly, Mass. In 1915 he retired from practice. AJO 1919, 2:165-166

Haessler, Ferdinand Herbert (1890-1965) American ophthalmologist who was born in Milwaukee, Wisconsin, and attended local schools, and later the University of Wisconsin where he received his B.A. degree in 1913. After a year of medicine, he received his M.D. degree from Johns Hopkins in 1916. He was a member of Phi Beta Kappa and Alpha Omega Alpha. There followed internships at Henry Ford Hospital, Detroit, and Children's Memorial Hospital, Chicago; a year as pathologist at the City Hospital, Louisville, Kentucky; a year in the U. S. Army Medical Corps (1917-1918) and two years at the Rockefeller Institute. At this time, Dr. Haessler decided to study ophthalmology and spent two years in eye residency at the Pennsylvania Hospital, Philadelphia. In 1922, he returned to Milwaukee, where he remained in private practice until his appointment as the first fulltime professor of ophthalmology at Marquette University Medical School in 1949. He continued in this capacity until his retirement 10 years later. In 1961 he and his wife, also a physician, moved to Alamo, California, where he died. While a competent ophthalmic surgeon, Dr. Haessler's greatest professional interest was in the relation of the eye to general and neurologic diseases. He became a member of the American Ophthalmological Society in 1927, his thesis being "*The functional blood in corneal vascularization.*" He was also a member of the American Academy of Ophthalmology and Otolaryngology, the Association for Research in Ophthalmology and the American Medical Association. While not a prolific writer in the modern sense, Haessler published some 30 articles, three

textbooks, and one film. Two of his outstanding publications were the film, "*Principles of immunology*" (1950), and the book, *Eye Signs in General Disease* (1960). Another book he wrote was *Ophthalmologic Diagnosis* (1953). His greatest contribution to Ophthalmology was his long-time editorship of the abstract department of the American Journal of Ophthalmology. He joined the staff as a collaborator in 1929 and became abstract editor in 1945, serving until 1963. AJO 1966,61:357-358

Hagen, Sigurd (1885-1938) Norwegian ophthalmologist at the Eye Clinic in Oslo. Hagen was born in 1885, and he succeeded Hj. Schiötz in 1922. His interests extended to all parts of ophthalmology. His researches into the post operative development of detachment of the choroids and of the regeneration of the aqueous of the anterior chamber deserved notice as they were published in 1920 and 1921. He wrote on glaucoma, retinoscopy, transitory hypermetropia and diabetes mellitus, melanosa of the choroid and other subjects. He gave one of the opening addresses at the XIIIth International Ophthalmological Congress "*Etiology and not operative treatment of Glaucoma.*" In June, 1937, he read a paper for the North of England Ophthalmological Society on a visit to Oslo. Professor Hagen was a very skilful operator, and he had obtained great experience during his work at the University Eye Clinic in Oslo and in his private practice. BJO 23,219,1938

Hager, Michael (1795-1866) Austrian surgeon, who devoted considerable attention to ophthalmology. Born at Hermannstadt in Siebenbürgen, he received his medical degree at Vienna in 1822, and, settling in Vienna, became Professor of Surgery at the Josephs Academy. Hager's only ophthalmologic writing was "*Ueber die Erhaltung der Augen und den Zweckmässigen Gebrauch der Brillen*" (Wien, 1823). American Encyclopedia of Ophthalmology, Vol.8,p.5675.



Ryutaro Hagino

Hagino, Ryutaro (1901-1977) Japanese Ophthalmologist, graduated from Nagoya University in 1927, who studied Ophthalmology under Prof. Ch OGUCHI, and was appointed Professor of Ophthalmology at the Research Institute of Environmental Medicine of Nagoya University in 1946. After retirement in 1956, he was made Professor Emeritus of Nagoya University and then invited to Nagoya City University as Professor and Chairman of the Department of Ophthalmology, the position he held until 1963, when he was elected the President of the Nagoya City University. He was an expert in the research of accommodation, and he gave a special lecture "*Physiology of Accommodation and its Clinical Significance*" at the 65th Congress of the Japanese Ophthalmological Society in 1961. After retirement from Nagoya City University, he was invited to Aichi Medical University, and was made the President of the University in April 1977: he died only 4 months after this appointment. (SM)



Hogara Hagiwara

Hagiwara, Hogara (1904-1969) Japanese Ophthalmologist. He graduated from Tokyo University in 1929, and studied Ophthalmology under Prof. ISHIHARA Shinobu. He received his Doctor of Medical Science from Tokyo University in 1938 through studies of binocular vision. Hagiwara's Haploscope was used in Japan for many years. He was invited to Okayama University as the Professor of Ophthalmology in 1948, but due to the death of Prof. M. NAKAJIMA, he was asked to come back to Tokyo as the Professor and Chairman of the Department of Ophthalmology of Tokyo University. He retired from the position in 1964: during his tenure of 13 years, he trained many Ophthalmologists of international fame: to name a few, S. KITANO, Y. FUKADO, M. FUKUDA, S. MISHIMA, Y. UCHIDA, M. ITOI, K. SHIMIZU, Y. SHIMIZU, K. MINODA, T. MARUO, and many others. He organized a research group of Behcet's disease which was then the most frequent cause of acquired blindness, and he delivered a special lecture "*Of Behcet's Syndrome*" at the 63rd Congress of the Japanese Ophthalmological Society and served as the President of that Congress. His endeavor has been preserved for posterity: this disease is now rare in Japan. The most significant of his many contributions was the Foundation of an English Language Journal [the *Japanese Journal of Ophthalmology*]. He visited many University Clinics in North America and Europe in 1955: to his regret no Japanese Journals were read even though many good papers had been published in Japanese Journals. On his return from a world trip, he started the "*Japanese Journal of Ophthalmology*" in 1957 with financial support from his friend, Mr. M. Suzuki, President of Sankyo Pharmaceutical Company. He served as the Chief Editor until his retirement. The Chief Editorship of this English Language Japanese Journal was transferred to

S.→SHIKANO, S.→MISHIMA and then to K.→MASUDA. The Journal is now the official Journal of the Japanese Ophthalmological Society and published bimonthly under the Chief Editorship of K.MASUDA. The Journal is included in the main Ophthalmological Journals of the World and is abstracted in the "CORE JOURNAL" of Excerpta Medica, and serves to introduce good Japanese works to the World. (SM)

Haguenot, Henry (1687-1775) A French physician, who paid considerable attention to diseases of the eye. Born at Montpellier, son of Jean Henri, grandson of Jean, and grandnephew of Thierry Haguenot, all celebrated surgeons, he studied his profession at Montpellier, where his father was teaching surgery. In 1711, at the very early age of 24, he was elected a Fellow of the Royal Society of Sciences at Montpellier. Almost immediately afterward, he was made professor of surgery in the University, in succession to his father, who had just resigned. Haguenot practiced and taught at Montpellier for more than 50 years, and with great success. When 80 years of age, i. e., in 1767, he relinquished his professorship and also retired from practice. Four years later he died, aged 84. He had no children, and therefore left to the Hôtel Dieu St. Eloi his entire fortune, including his very large library. This became the nucleus for the present most excellent library of the Medical College at Montpellier. Haguenot's writings were almost all concerned with general medicine. In one of his works, however, *Tractatus de Morbis Externis Capitis* (12 mo., Avignon, 1751), he gives a bare, uninteresting and highly unoriginal treatise on the diseases of the eye. American Encyclopedia of Ophthalmology, Vol.8,p.5675.

Hahnemann, Christian Friedrich Samuel (1755-1843) German, founder of the homeopathic method of treatment. He wrote: *Organon der rationellen Heilkunst* Dresden 1810 (Countless editions followed).Hirsch.GM.



Frédéric Hairion

Hairion, Frédéric (1809-1887) Belgian hygienist, syphilographer and ophthalmologist, one of the institutors of the *International Congress for Ophthalmology at Brussels* (1857) and for some years, beginning with 1837, one of the editors of the *Annales d'Oculistique*. Born in Beaumont, Belgium, he received the medical degree at Leuven (in French:Louvain) in 1832, pursued further studies at Paris, Brussels, and again at Paris, became for a number of years a military surgeon, and in 1835 settled permanently in Leuven. Here he at first taught syphilis, diseases of the skin and hygiene; later, ophthalmology was add his subjects. In 1840 or 1841 he founded the "*Institut Ophthalmique de l'Armée*" of which he was shortly afterwards made director. Hairion's most important ophthalmologic writings are as follows. 1. *Considérations Pratiques et Recherches expérimentales sur le traitement de l'Ophthalmie qui règne dans l'Armée Belge*. (Louvain 1839.) 2. *De l'Ophthalmie Gonorrhéique*. (Ibid., 1846.) 3. *Des Granulations Palpébrales*. (*Annales Belges d'Oculistique*, 1870.) 4. *De l'Emploi du Collodion en Ophthalmologie*. (*Bull. de l'Académie Royale de Médecine*, 1848-49.) *Discours prononcé dans la discussion sur l'ophtalmie des armées* Bruxelles 1864. American Encyclopedia of Ophthalmology, Vol.8,p.5675-5676 ;Albert:Source Book of Ophthalmology,p. 138; van Duyse Coup d'Oeil sur l'Histoire de l'Ophtalmologie en Belgique au XIXème siècle, p.169 & 256-257[cplt. bibliography].[*In this case, both the *American Encyclopedia* and also *Albert Source Book* erroneously are quoting Hairion as being French and having settled in Lyons. Obviously Lyons has been confounded with the Belgian town of Leuven, which university was founded in 1425-and where Hairion settled.JPW]

Halberg, Gyula Peter (1915-) American Ophthalmologist of Hungarian origin. Professor Emeritus of Ophthalmology, New York,Medical College. Born as the son of a respected physician, Dr. Paul Halberg in Budapest, he completed his schooling in Budapest. He graduated from the Medical Faculty of the Pazmany Peter University (now called the Semmelweis University of Medical Sciences) in Budapest, in 1942 and he received his MD degree. He then completed his Ophthalmology residency at the University Eye Hospitals in Budapest (1942-1945) and subsequently worked in Fellowship in Ophthalmology and received the Hungarian Board of Ophthalmology Certificate in 1945. He further extended his studies at Geneva University Ophthalmology Clinic under Professor A.→Franceschetti (1947), at Instituto Pedro Lagleyze Buenos Aires under Professor Jorge→Malbran (1948), at Columbia University Institute of Ophthalmology

under Professor Algernon→Reese and Professor J. Dunnington (1949-1950) In the USA. He served as a resident in Ophthalmology, Newark Eye and Ear Infirmary (1952) in the USA and received the American Board of Ophthalmology Certificate in 1958, the American Preceptorship in Ophthalmology under Professor Conrad Berens (1955 to 1960). He served at the New York Eye and Ear Infirmary from 1955 to the present-day and extended his career from assistant Attending Surgeon to Director of Glaucoma Service and currently he is Honorary Ophthalmic Surgeon. While working at the New York Eye and Ear Infirmary Visual Physiology Laboratory he recorded the Electrical Activity of the Living Human Eye during Accommodation, published with his associates in the *American Journal of Ophthalmology* Vol. 46: 231-238, 1958. At New York Medical College he served from 1962 to present-day: from Assistant Professor to Professor Emeritus. He is a Life Fellow of the American College of Surgeons. He joined as a Fellow the American Academy of Ophthalmology in 1958. Now he is a Life Fellow of the American Academy of Ophthalmology and a recipient of the Honor Award and Senior Honor Award of the Academy. In 1992 he received a 50-year Gold Diploma from the Semmeiweis University of Medical Sciences. His major interests in Ophthalmology have been Contact lens complications, Glaucoma and Ophthalmic Photography. He is the *first* to photograph the human fundus with the modern color film material - Agfachrome - with the modified Nordenson Camera in 1942 in Budapest. He is innovative in various ophthalmic instruments, eg. "Organization of a photographic Department. Br. J. Ophthalmol. 34: 121, 1950", "Simple camera support for the operating theatre. Ibid. 33: 780, 1949", "Portable Refractor Unit. Am J. Ophthalmol. 46: 218, 1958", "Monocular Trial Frame. Am J. Ophthalmol. 27: 692, 1959". He improved the Maklakoff hand applanation tonometer, Transactions of the American Academy of Ophthalmology Vol: 72: 112-114, 1968. He Standardized the Schirmer Tear Test, with Conrad Berens, American Journal of Ophthalmology, 151, May, 1961. He contributed numerous chapters in Handbooks of Ophthalmology, such as *Diagnosis and Treatment of Eye Diseases*, edited by Conrad Berens, McGraw-Hill, 1960 and a number of others. Duke-Elder's *Textbook of Ophthalmology*, quotes with a photograph one rare case of a genetic anomaly published in the British Journal of Ophthalmology Vol. 33 :709-713, 1949. He organized with the approval and guidance of Professor Jules Francois, the late President of the International Council of Ophthalmology, a new international organization the "International Contact Lens Council " in 1966 and organized International Medical Contact Lens Symposia in conjunction with the International Congresses of Ophthalmology since 1966, to the present day without interruption. He served as the President of this Council and created the Emile Javal Gold and Silver Medals, that are conferred upon individuals who made outstanding contributions to the medical Contactology field. To honor his contributions, Halberg Lectureship and medal was created. This medal is given at the International Medical Contact Lens symposia, to honor scientists with special merits in the field. In 1998, he retired and was named Honorary Chairman of the International Contact Lens Council. He has served from its foundation in 1963 as an officer of the Contact Lens Association of Ophthalmologists in the U.S. (CLAO) and published many original articles in the medical contact lens field. "Soft Contact Lenses: Past, Present and Future" *Soft Contact Lenses*, (Ed), Kaufman, H. Mosby Co. St Louis, 1972", "Contact Lenses in Aphakia", *Symposium on Contact lenses*, Mosby Co. St. Louis, 1973" and many others. In 1968 he organized with Prof. Kajiura Mutsuo, a Japan - USA Symposium of Medical Contact Lenses; this international meeting gave a significant impetus to the progress of Medical Contactology in Japan. He delivered numerous special lectures in the USA, Europe, Japan as well as in other countries, including the Conrad Berens Memorial Lecture at the CLAO meeting in 1977. He served from 1980 to 1983 as the Editor-in-Chief of Ophthalmology Times, a popular newspaper throughout the world. (Dr. Gyula Peter Halberg, Professor Emeritus of Ophthalmology, 40 West 77 Street, New York, NY 10024-5128 USA. Tel. USA 212-362-1172 (Fax on demand); E-mail: gphny@aol.com) (SM)

Haldat du Lys, Charles Nicolas Alexander de (1770-1852) French surgeon and ophthalmologist. Born at Bourmont , he was for a time a surgeon in the French army, but, having retired into civil practice at Nancy, he there became Instructor in Physics at the Ecole Centrale de la Meurthe. In 1803 he received the degree of Doctor in Medicine at Strassbourg. Returning to Nancy, he became in 1824 Inspector of the University, a position which he held for eight years. He also became a Fellow and Secretary of the

Academy of Science, Letters and Arts at Nancy. His ophthalmologic writings are as follows: 1. "*Expériences sur la Vision Double.*" (Lamétrie, *Jour. de Physique*, 1806.) 2. "*Recherches sur les Limites de la Vision Simple et les Points de Correspondance de la Rétine. etc.*" (Ibid., 1807.) 3. *Optique Oculaire. Suivi d'un Essai sur l'Achromatisme de l'Oeil.* (Paris, 1849.) American Encyclopedia of Ophthalmology, Vol.8, p.5679

Halifa b. Abil-Mahasan (flourished second half 13th century). A distinguished ophthalmologist of Aleppo, who flourished in the latter half of the 13th century. Concerning the man himself we know almost nothing; his one writing, however, entitled "*The Book of Sufficiency in Ophthalmology.*" is still extant, and for many reasons is worthy of note. Of great importance is the list of Arabian ophthalmologists and ophthalmologies with which the book begins. As Halifa was one of the latest of the Arabian writers on the eye, the list, of course, is about complete, so far, at all events, as concerns the more important writers and books. The following is a translation of the highly interesting passage in question: "Generally recognised is the advantage of visual power, and the profit which one is in a position to create out of that power for his spiritual completeness. After I had studied in detail the works concerned especially with eye diseases and their treatments, for example, (1) the ten books of Hunain on the eye, and (2) his three books on the same subject, in the form of question and answer; (3) the book of his sister's son, Hubais, which he calls '*The Book of the Explanation of Eye-Diseases*, and in which he has provided the eye and a few diseases, as for example the large pterygium and the pannus, with illustrations; (4) The Memorandum-Book of the Oculist, Ali ben Isa; (5) The Commentary thereto by Daniel, the son of Saja; (6) The Tables of Rhazes; (7) The Final Aim of Ophthalmology; (8) The Memorandum-Book of Mansur; (9) The Book of Akbari; (10) The Book of the Oculist of Amid; (11) the work of Ibn Abi as-Sajjar; (12) The Work on Cataract, its Treatment and its Operation, by the Egyptian Ibn Duhail; (13) the book of the oculist Abdan; (14) the book of the oculist ad-Dan of Tiberias; (15) the work composed by the double-minister Abul Mutariff, of the Magrib, on the visual spirit, wherein he writes with excellent ideas concerning the treatment of the visual power; (16) The Book of the Correction of the Seer and of the Sight; (17) The Book for the Examination of the Oculist; (18) the iambic poem of al-Misri concerning the eye, its pathology and its treatment-as indeed still many others; for there is no book on the art of healing, whether short or long, that does not contain the anatomy of the eye and the description of a few of its diseases, and their treatment;-then I found in all these works the ordinary rules of the art, but still a neglect of a few subordinate subjects out of the chapters relating to this special branch." The contents of Halifa's important book can best be given in his own words: "The Book comprises two main divisions. The first treats of the anatomy of the eye and of its various conditions. The second, of everything connected with its treatment. " The *first* section of the first division treats of the definition of the eye, of its mingling, and of its color, and of the causes of the latter. The *second*, of the anatomy of the membranes of the eye and of their origin. The *third*, of the humors of the eye. The *fourth*, of the visual spirit [*see* Ali ben Isa] and its nerves and of the condition of vision. The *fifth*, of the nerve of motion of the eye and of its origin. The *sixth*, of the anatomy of the muscles of the eye, and of the lids and the lashes and their roots and their nourishment. After that, I give the figure of the brain and of the two eyes and the nerves of both of them, as available to the understanding as is for me possible." The second main division comprises six sections. The *first* treats of the general rules concerning the scientific specialty, of the preservation of health and of the times of disease. The *second* contains an explanation of the preservation of the health of the eye, and also an explanation of such things as assist and injure the eye and of those which preserve its health and strength. The *third* section of this treats of this, how one opens the eye and introduces medicine into it. The *fourth*, of the best kind of sound and its employment. The *fifth* mentions the apparatus by means of which each kind of collyrium is fortified. The *sixth* mentions the most appropriate kind of clothing for the eye-doctor. "Hereupon follow tables, which contain the number of the diseases of the lids as well as of the eyes themselves, and how such diseases arise, and at what seasons of the year and in what periods of life their occurrence is most frequent; and their causes and their symptoms and the treatment of such of them as man can treat. To eye-diseases belong those perceptible to the senses, as well as those not so perceptible. "I add to each table the simple remedies,

according to the expression of the learned as to what is specific for each affection-in order that thou mayest find occasionally indemnification for the compounded remedies. Thereupon follows the enumeration of several anesthetic [benumbing] remedies, which, by their mingling, benumb sensation, also specific means for the same purpose-according to the best knowledge and as briefly as possible. 'Finally follow tables on the treatment of those diseases which demand surgical intervention. Then I add, tables of the hidden diseases of the eyes and close the book with an index of remedies. I will keep short the table on compounded remedies, particularly as these have been already referred to. Thus is this appendix sufficient for the practitioner, May he, in my work, improve what is bad and complete what he finds to be defective. God is our trust. " Much of the contents of his "*Book of Sufficiency*" Halifa undoubtedly borrowed from the earlier Arabians. Nevertheless, he has given us some new matter also, and even what he borrows he clarifies. Probably most important, and at all events most interesting, of all the contents of this highly interesting book, is "the figure of the brain and of the two eyes and of the nerves of both of them " referred to above in Halifa's own analysis of the contents of his book. This illustration is one of the earliest, possibly the very earliest, scientific illustration of the eye which has come down to our day. Almost as interesting as this earliest illustration of the eye are the pictures given by Halifa, in the same work, of the various instruments which, in his time, were employed in ocular surgery. American Encyclopedia of Ophthalmology, Vol.8, p.5680-5687

Hall, Geoffry Craythorne (1848-1923) British surgeon who was educated at Guy's Hospital (receiving his M.R.C.S. in 1871), and who served in India as a medical officer, retiring in England with the rank of colonel. He was the author of two ophthalmic works. *A few words about senile cataracts*. Allahabad 1899.

Hall, John Charles (1816-1876) English physician, especially renowned as an ophthalmologist and for his writings on occupational diseases. Born at Nottingham, England, he studied at St. George's Hospital (M.R.C.S., 1839), as well as in Paris. Returning to England, he settled at first in Bedford. In 1848 he became a Fellow of the Royal College of Physicians (Edinburgh) and in the same year settled in Sheffield. A few years later he was made professor at the School of Medicine. In ophthalmology he wrote: *Clinical remarks on certain diseases of the eye and on miscellaneous subjects* London 1843; *On the nature and treatment of some of the more important diseases medical & surgical, including the principal diseases of the eye* London 1844. American Encyclopedia of Ophthalmology, Vol.8, p.5687-5688. Albert



Albrecht von Haller

Haller, Albrecht von (1708-1777) Swiss physician, founder of modern physiology and of medical and scientific bibliography. Haller was born in Bern, Switzerland, and received his M.D. at Leiden (Holland) at the age of nineteen. Physician, mathematician, and botanist, Haller became president of the University of Göttingen as well as professor of anatomy, surgery, and botany in 1736. In 1753 he returned to Switzerland, working on physiological research and numerous other scholarly activities. Haller's most important single contribution was his demonstration that irritability, or contractility, is the specific property of muscular tissue, while sensibility is exclusive to nervous tissue. Haller also made important additions to knowledge of the anatomy and physiology of the visual apparatus. Of his vast published output, the major works are his *Icones anatomicae* (1743-1756), *Elementa physiologiae corporis humani* (1759-1766), and various medical and scientific bibliographies (1771-1778). *Sur la formation du coeur dans le poulet; sur l'oeil, sur la structure du jaune, &c.* (2 vols.) Lausanne 1758. *Bibliotheca medicinae practicae* (4 vols.) Basel and Bern 1776-1788; *Grundriss der Physiologie für Vorlesungen* Berlin 1788. Albert.

Haltenhoff, Georg (1843-1915) A Swiss oculist of Geneva, who studied at Geneva, Würzburg, Zürich, Paris, Berlin, and Heidelberg, returning to Zürich to received the medical degree in 1866. Concerning his life from 1866 to 1872, the pre writer has not been able to secure the slightest information. In 1872 however, Haltenhoff settled as an ophthalmologist in Geneva, before the year was over, had qualified as privat docent in ophthalmology. In 1891 he became extraordinary, in 1903, ordinary professor. Not till seven years later, however, was he placed in charge of the eye-division of a town clinic. Some of Haltenhoff's ophthalmic writings are as follows: *Mém. sur la création d'une division ophthalmique à l'hôpital cantonal de Genève.* (Gen., 1872, p. 23.) Retinitis

haemorrh. bei Diabetes Mellitus. (*Klin. Mon.-Bl.*, pp. 291-298 and *Ann. d'Ocul.*, LXTT, pp 31.) Cataracte traumatique luxée, resorption spontanée. (*Bul. la Soc. méd. de la Suisse Romande*, No. 12, 1873.) Fragment de. dans la cavité orbitaire. (*Ibid.*, No. 10, 1873.) C. R. de quel travaux récents sur les cavités lymphatiques de l'appareil visuel (*Ann. d'Ocul.*, LXXI, pp. 208-212, 1874.) Apparat zu optischen Demonstrationen. (*Klin. Monatsbl.*, pp. 198-200, 1874.) Prolapsus traum. de la glande lacrim. orb. (*Ann. d'Ocul.* CXITT, p.1895.) Opération de la cataracte chez le chien. (*Ibid.*, CXXI, p. 129, 1898.) Un cas de tétanos céphalique avec paralysie faciale et oculaire. Guérison -. (*Ann. d'Ocul.*, CXXVIII, p. 467, 1902.) Cas de lèpre avec localis. oc. (*Ibid.*, 1902.) Die Berger'sche Binokular-Lupe. (*Ophth. Klinik*, No. 22, and *Clinique opht.*, p. 281, 1905.) Hérédosyph. a la troisième génération. (*R. m. Suisse Romande.*, XXXVI, No. 6, 1906.) Double conj. diphthéroïde. (*Ibid.*, 1906.) Ophthalmoplégie externe double nucléaire (*Ann. d'Oc.*, CXXXIX, p. 290, 1908.) Mercure a prendre pour combattre l'ophtalmie des nouveau-nés. (*Ibid.*, CXL, p. 394, 1908.) *Welches sind die gesetzlichen Massnahmen, die in der Schweiz zur Bekämpfung der Augen-Entzündung der Neugeborenen zu ergreifen sind?* (St. Gallen, 1908.) Lésions ocul. tabétiques. *Revue gén. d'Ophtalm.*, p. 426, 1910.) American Encyclopedia of Ophthalmology, Vol.8, p.5690-5691

Hamano, Hikaru (1923-) Japanese Ophthalmologist, Clinical Professor of Ophthalmology of Louisiana State University, U. S. A. and Director of Hamano Clinic. He graduated from University of Osaka Medical School in 1944, studied Ophthalmology under Prof. Y.→UYAMA and received the degree Doctor of Medical Sciences in 1952 (thesis: *Experimental study on reading distance*. *Folia Ophthalmol. Jpn.* 3: 245, 1952). His research interest is in contact lenses and he has done extensive studies on the basic physiology of contact lens wear. He is an Executive Board Member of the Japan Contact Lens Society. He is the Founding member of the International Contact Lens Council of Ophthalmologists and serves as the Secretary General of the Council since 1978. He is also a member of the International Society for Contact Lens Research and Contact Lens Association of Ophthalmologists. He delivered the First Halberg Award Lecture at the International Symposium of Contact lens held in Singapore, entitled "*Fundamental and clinical studies of corneal physiology and contact lenses*", the paper having been published in *Asia-Pacific Journal of Ophthalmology* 2: 42, 1990; 2: 108, 1990; 3: 37, 1991; 3: 77, 1991. He published many scientific articles and wrote many books on the contact lens, e.g. "*The Physiology of the cornea and contact lens applications*. Churchill Livingstone Inc. New York, 1987" and "*Corneal Physiology and disposable contact lenses*. Butterworth-Heinemann. Boston, 1997". (Hamano Eye Clinic, Dai-Hanshin Build. 3F, 1-13-13, Umeda, Kita-ku, Osaka, 530-0001, phone: 81-6-6343-0770, fax: 81-6-6361-5556, e-mail: hamano@med.email.ne.jp) (SM)



Léon Hambresin

Hambresin, Léon (1888-1966) Belgian ophthalmologist. Hambresin obtained the M.D. degree in Leuven in 1912. He specialized in ophthalmology with Anatole →Vanderstraeten in Leuven, Victor →Morax in Paris and Ernst→Fuchs in Vienna. From 1919 he wrote several papers on *medical and surgical treatment of glaucoma*. In 1938 he made a report on *shock therapy for ocular diseases*. In 1958 he made for the International Congress of Ophthalmology in Brussels another report on *visual disability from work accidents*. He wrote also on *retrobulbar anesthesia* (1922), *treatment of spasmodic entropion*, *tabagic amblyopia*, *diabetic cataract* etc. He was president of the Professional association of the Belgian ophthalmologists and founder-president of the *Belgian association of specialists*. He had many pupils and among them Charles L.→Schepens, who wrote on him: '*We was a perfectionist, totally honest, and very knowledgeable. As a practitioner he was probably not recognized for the remarkable scholar that he was*'. (Verriest)

Hamill, John R. (1864-1908) American ophthalmologist. Hamill was professor for ophthalmology at the Chicago Clinical School. The Ophthalmoscope, London 1908.

Hamilton, Frank Hastings (1813-1886), American surgeon and anatomist. Hamilton was born in Wilmington, Vermont, and received his M.D. at the University of Pennsylvania in 1835. He taught anatomy and surgery at the Geneva (New York) Medical College from 1835 to 1843, the University of Buffalo from 1846 to 1858, Long Island College Hospital in Brooklyn from 1858 to 1861, and Bellevue Hospital Medical College in New York from 1861 to 1875). He was a pioneer in skin grafting and an authority on military surgery. He wrote a little ophthalmic book: *Monograph on strabismus, with cases*. Buffalo 1845. Albert

Hamilton, John Bruce (1901-1968) Australian ophthalmologist. He belongs to the fourth generation of emigrants who went to Van Dieman's Land (now known as Tasmania) 190 years ago. Educated first in his native Hobart, he pursued his medical studies first in Sydney, then in Melbourne, and finally in Moorfields Eye Hospital where he was a Resident. He obtained the DOMS (London) in 1928 and the DO (Oxford) in 1929, became a fellow of the RACS in 1932 and an MD (Sydney) in 1948. In Australian ophthalmology he occupied a prominent place. He was chairman and member of the Research Committee of the Ophthalmic Institute of Australia, vice-president of the Royal Tasman Society for the Blind and Deaf, president of the Ophthalmological Society of Australia, a councillor of the Royal Australasian College of Surgeons, and president of the Tasmanian branch of the British Medical Association. In a wider field he was a vice-president of the International Association for the Prevention of Blindness, and he retained his connexions with Great Britain in being a member of the Faculty of Ophthalmologists, a life-member of the Ophthalmological Society of the United Kingdom, and a Fellow of the Royal Society of Medicine. During the second world war, from 1941 to 1943, he served as a Major in the Australian forces in the Middle East. In addition to sixty papers in various journals in the English-speaking world, he published two books: *A Guide to Ophthalmic Operations* and *The Significance of Heredity in Ophthalmology* (Melbourne 1951). His interests were not confined to ophthalmology, for he took a prominent position in the public life of Tasmania; a typical hobby was the building of the Bligh Museum of Pacific Exploration in Adventure Bay on a small island on the southern coast of Tasmania. Here with immense pains and after much travelling he gathered priceless historical relics of the distinguished visitors to the island, who included Tasman, Captain Cook, and Vice-Admiral Bligh of the Bounty. The museum, opened in 1954 on the 200th anniversary of Bligh's birthday, is itself historical, for it was built of bricks taken from an old church; these were hand-made by convicts in the 1840s and still show the finger-prints of the labourers. BJO 1968,52:942

Hamilton, Robert. A Scottish surgeon of the early 19th century, who seems to have devoted a considerable portion of his time to eye diseases. His life-dates are unknown. He was, however, for a time, surgeon at the Edinburgh Eye Infirmary, and, in 1843, published in the *Edinburgh Medical Journal* an article entitled "*Substance of an Introductory Lecture to a Course upon the Structure, Functions and Diseases of the Eye; Comprising a Comparison of the State of ophthalmic Science in Germany and England; and a Recommendation to Introduce the German Method of Instruction into the British Schools.*" American Encyclopedia of Ophthalmology, Vol.8,p.5691-5692.

Hamilton, William (Sir William) Rowan (1805-1865) Irish mathematician born in Dublin. His earlier essays connected with caustics and contact of curves grew by degrees into an elaborate treatise on the *Theory of Systems of Rays*. To this he added various supplements, in last of which, published in 1833, he predicted the existence of the kinds of conical refraction, the experimental verification of which Lloyd still forms one of the most convincing proofs of the truth of undulatory theory of light. His next great work was *A General Method in Dynamics*. For these researches Hamilton was elected honorary member of the Academy of St. Petersburg, a rare and coveted distinction. While an undergraduate at Trinity College, Dublin, he was pointed in 1827 successor to Dr. Brinkley in the Andrews chair of Astronomy in the University of Dublin, to which is attached the astronomer-royalship of Ireland. This post he held until his death. In 1835 he was knighted on his delivering the address as secretary to the British Association for its Dublin meeting. American Encyclopedia of Ophthalmology, Vol.8,p.5692

Hammurabi, The Code of An ancient Assyrio-Babylonian code, oldest book on law in all the world, and, incidentally, the oldest document of any kind to mention matters, medical or ophthalmic. The Egyptian "*Papyrus Ebers*" is, in fact, almost modern by comparison: for the date of its composition is about B. C. 1500, while that of Hammurabic Code is actually B. 2250. The parts of the Code in question which relate to ophthalmic matters are as follows (according to the translation of Robert Francis Harper, Ph.D.) :196.- *If a man destroy the eye of another man, they shall destroy his eye.* 198:*If one destroy the eye of a freeman or brake the bone of a freeman, he shall pay one mana of silver.* 199: *if one destroy the eye of a man's slave or brake a bone of a man's slave, he shall pay one-half this price.* 215: *if a physician open an abscess (in the eye) of a man with a bronze lancet and save that man's eye, he shall receive ten shekels of silver (as his fee).* 216: *If he*

be a freeman, he shall receive five shekels. 218: If a physician open an abscess (in the eye) of a man with a bronze lancet and destroy the man's eye, they shall cut off his fingers. 220: If he open an abscess (in his eye) with a bronze lancet, and destroy his eye, he shall pay silver to the extent of one-half of his price. "American Encyclopedia of Ophthalmology, Vol.8, p.5692-5693

Hancock, William Ilbert (1874-1910) British ophthalmologist. He studied at Guy's Hospital and qualified as a member of the Royal College of Surgeons in 1896, and as fellow in 1898. He became a member of the Ophthalmological Society of the United Kingdom in 1899 and contributed several papers in *Transactions*. At the time of his early death (36 years) he was assistant surgeon to the Royal London Ophthalmic Hospital (Moorfields) and surgeon to the East London Hospital for Children and to the Bolingbroke Hospital and last senior assistant to Central London Ophthalmic Hospital. Hancock also contributed several papers to *Moorfields Hospital Reports*. American Encyclopedia of Ophthalmology, Vol.8, p.5694, The Ophthalmoscope, 1910, p. 242-243.

Hancock, Henry (1809-1880) A famous British surgeon from London who devoted most of his time to ophthalmology, and who invented the procedure of division of the ciliary muscle for glaucoma. Born at London, he studied at first pharmacy, but appears never to have practised that profession. In 1830 he began the pursuit of medicine at the Royal Westminster Ophthalmic Hospital, later at King's College and at Westminster Hospital. For a time he was a pupil of Guthrie. In 1832 he was appointed house-surgeon at the Royal Westminster Ophthalmic Hospital, in 1834: prosector of anatomy in the Westminster School, and in 1837 lecturer on anatomy and physiology at the Charing Cross Medical Hospital. Two years later he was made assistant surgeon at the Charing Cross Hospital. For many years he was surgeon to the Westminster Ophthalmic Hospital where his lectures were well attended. In 1846 he became president of the *Westminster Medical Society*, and, two years later, of the London Medical Society. In 1863 he became a Fellow of the Council of the Royal College of Surgeons. Hancock's sclerocyclotomy, or division of the ciliary muscle for glaucoma, seems to have found little favor in his day, and, at the present time (1916), is recommended only for the alleviation of pain in glaucoma absolutum. (See Wood's *System of Ophthalmic Operations* II, p. 1122, article by William Campbell Posey on "*The Operative Treatment Glaucoma*.") Ball is an ardent advocate of Hancock's operation for this one purpose. Aside from numerous works on general surgery (the most important of which is entitled "*On the Operative Surgery of the Foot and Ankle Joint*") he wrote "*On the Division of the Ciliary Muscle in Glaucoma*. (*Westminster Oph. Hosp. Reports*, no. 12, July, 1860, p.13-20 and *On the ophthalmia of children or remittent ophthalmia*. London 1855. American Encyclopedia of Ophthalmology, Vol.8, p.5693-5694. Albert

Hanna, Henry (1874-1946) Irish ophthalmologist who received his early education at Belfast Royal Academy while his university career was spent between Queen's College, Belfast, and St. John's College, Cambridge. The old Royal University of Ireland conferred upon him a *Bachelor of Arts* degree in 1894 and a Master of Arts, Bachelor of Science degree in 1896. In the following years he worked at Cambridge University but in due course returned to Ireland to commence a medical career. His undergraduate studies finished when he was awarded his Bachelor of Medicine degree in 1903. Having completed a resident medical officer appointment in the newly built Royal Victoria Hospital, Belfast, and a period of demonstrating in the department of anatomy, he proceeded to Vienna to study at their eye, ear and throat clinics. Returning to Belfast he commenced to practise in his chosen speciality and in due course became head of the department in the Royal Victoria Hospital and also the Belfast City Hospital. He was honoured with many of the highest offices: he was President of the Irish Ophthalmological Society, President of the Ulster Medical Society, and also presided over his special section at the British Medical Association meeting in Belfast in 1937. BJO 1946,30:769-770

Hannover, Adolf (1814-1894) Danish anatomist, physician and ophthalmologist. Born in Copenhagen, he was there admitted to medical practice in 1838. Later he studied for a number of years in Paris and Berlin. He then became a military surgeon, also assistant physician at the Royal Friedrich's Hospital, and for a time was privat docent in pathologic anatomy. In 1856, and again in 1878, he received the Monthyon Prize of the Institute of

France for his investigations in ocular anatomy and pathology. Hannover's chief ophthalmologic writings are: 1. *Ueber der Netzhaut u.s. w. (Müller's Archiv 1840.)* 2. *Die Linse. (Ibid., 1815.)* 3. *Der Glaskörper. (Ibid., 1845.)* 4. *Das Auge. Beiträge zur Anatomie, Physiologie und Pathologie dieses Organs.* (Danish, 1850; German, Leipzig, 1852.) 5. *La Rétine de l'Homme et des Vertébrés, Mém. Histologique, Historico-Critique et Physiologique.* (Danish, 1875; French, Copenhagen and Paris, 1876.) American Encyclopedia of Ophthalmology, Vol.8, p.5696-5697. Albert

Hansell, Howard Forde (1855-1934) American ophthalmologist of Philadelphia. Hansell received his M.D. in 1879 at Jefferson Medical College, and became professor of ophthalmology in the same place in 1894. He was a member of the ophthalmologic staff of the Philadelphia Hospital. Hansell wrote with James H. Bell: *A manual of clinical ophthalmology.* Philadelphia 1892, with Wendell Reber: *A practical handbook of the muscular anomalies of the eye* Philadelphia 1899 and with William M. Sweet *Textbook of Diseases of the Eyes,* Blakiston's Son & Co.1903. JPW

Hansen-Grut, Edmund (1831-1907) Danish ophthalmologist. Professor for ophthalmology at the University of Copenhagen. *The Ophthalmoscope,* London 1907, p.530.

Harada, Einosuke (1892-1946) Japanese Ophthalmologist. He graduated from Tokyo University in 1917 and studied Ophthalmology under Prof. J. KOMOTO and Prof. S. ISHIHARA. In 1922, he discovered a rare case of acute uveitis with bilateral retinal detachment. He compiled similar cases and established that this was a new clinical entity, which is now named "Harada Disease". Later it was found that this disease together with the diseases described by A.→VOGT and by Y.→KOYANAGI is an expression of the same disease entity, i.e., Vogt-Koyanagi-Harada disease. Dr. Harada carried out research at the Department of Pharmacology and was granted the degree, Doctor of Medical Science for studies of ocular pharmacology. In 1930 he started to practice in the city of Nagasaki; his hospital was destroyed by the atomic bomb. Although he survived the bomb, he died before he could restart practice. (SM)



Einosuke Harada

Harcourt, Richard Brian (1934-1987) British ophthalmologist, consultant ophthalmic surgeon to the General Infirmary at Leeds. Honorary senior clinical lecturer to Leeds University and President of the Ophthalmological Society of the United Kingdom. Harcourt was born the son of an engineer and the grandson of a surgeon, and was educated at Quarry Bank School, Liverpool, before studying medicine at Trinity College, Cambridge, and St Bartholomew's Hospital, London. After national service in the Royal Air Force he chose ophthalmology as his specialty and undertook his training at the High Holborn branch of Moorfields Eye Hospital. Early in his ophthalmic career he showed a flair for paediatrics and after spending a year as a Research Fellow in paediatric ophthalmology at the Hospital for Sick Children, Great Ormond Street, and the Institute of Ophthalmology he was appointed to the consultant staff of the General Infirmary at Leeds in 1968. He was made an honorary clinical lecturer to Leeds University and was promoted to honorary senior clinical lecturer in 1978. At Leeds he developed his expertise in paediatric ophthalmology and in strabismus so that in a very few years he had become one of the acknowledged experts in these fields. His many publications culminated in the book *The Diagnosis and Management of Ocular Motility Disorders,* (1986) written in collaboration with Miss Joyce Mein. In addition to his extensive clinical practice, he was very active in national and international ophthalmic committees. He was elected a member of council of the Faculty of Ophthalmologists in 1970 and had been its honorary treasurer since 1979. He was a member of the General Optical Council, one of the British representatives on the Section of Ophthalmology of the European Union of Medical Specialists, and represented British ophthalmologists on the board of governors of Moorfields Eye Hospital. In addition to being a member of its court of examiners he had recently been appointed regional adviser in ophthalmology to the Royal College of Surgeons of England. In 1987 he was elected President of the Ophthalmological Society of the United Kingdom. He played a major part in developing the interests of ophthalmology, not least in his support for the proposed College of Ophthalmologists. BJO 1988,72:321. The Times 17 Nov 1987. JPW

Harfitt, Roy (1944-1994) British ophthalmologist. Roy Harfitt was born in Alexandria, Egypt. He had no medical connections. His grandfather, Vicar of St Mary at Hill (the

Billingsgate fish market church) founded the Christian Evidence Society. Ronald Stanley Harfitt, his father, worked in civil aviation and his mother was Josephine Lilian, née Massad. He was brought up in London and went to school at St Gabriels Angel, and then Cardinal Vaughan, Holland Park. He trained at Bart's, winning the ophthalmology prize. After a variety of junior posts he became SHO at Oxford Eye Hospital, registrar at Moorfields, and at St Thomas's and Guy's he held the post of consultant ophthalmic surgeon in the Merton and Sutton Health District from 1977 until his death. He was also lecturer at St George's Hospital, Tooting. He established ophthalmology in paediatrics at Queen Mary's Hospital, Carshalton, and was president of the Sutton and District Blind Association. Harfitt received following titles: MRCS 1967; FRCS 1974; DO 1971; FRCOphth 1989; LRCP 1967. BMJ 1995,310:734.

Harlan, George Cuvier (1835-1909) American ophthalmologist of Philadelphia, inventor of Harlan's tests for malingering and Harlan's operation for symblepharon. He was born in Philadelphia, Pa., the son of Dr. Richard Harlan. In 1855 he received the degree of Bachelor of Arts from Delaware College, and the Master's degree from the same institution in 1858, the year in which he received his medical degree from the University of Pennsylvania. His graduation thesis at the last named institution was entitled *The Iris*. As early as April 6, 1857 (even before he had received his medical degree) he was appointed resident physician at the Wills Eye Hospital. From 1861 till 1864 he was surgeon at the same institution, although, for a time, in 1861, he was assistant surgeon in the U. S. Navy. In 1868 he again became full surgeon at the Wills Eye Hospital, and remained in that position till May, 1901-more than twenty-three years. On Oct. 29th of the same year he was made consulting surgeon. He was also connected at various times with numerous other hospitals in his capacity as ophthalmologist. He was the *first* incumbent of the chair of ophthalmology at the Philadelphia Polyclinic and School for Graduates in Medicine. As a teacher he was clear, concise and practical. He was also a very skilful operator, never quick and brilliant, but conservative and conscientious. His manner in the midst of an operation was, in fact, so placid and composed that the patient himself would often be considerably influenced by it. He used to tell his students that operation-fright was, at least in greater part, the offspring of too much haste. He was a member of the *College of Physicians of Philadelphia*, the *Philadelphia County Medical Society*, the *Medical Society of the State of Pennsylvania*, the *American Medical Association*, the *Wills Hospital Ophthalmic Society*, the *American Ophthalmological Society*, and the *International Congress of Ophthalmologists* in 1876. Aside from numerous journal articles, he wrote "*Diseases of the Eyelids*," and "*Operations Performed upon the Eyelids*," both for Vol. III of Norris and Oliver's "*System of Diseases of the Eye*," and "*Eyesight and How to Care for It*" (1879). The latter composition was a popular manual, clear, practical and thorough, and of very great value to the laity. It had a large sale. His operation for symblepharon is widely employed, and the same may be said of his various tests for ocular malingering. American Encyclopedia of Ophthalmology, Vol.8, p.5698-5700. The Ophthalmoscope 1909, p.800. Albert

Harley, George (1829-1896) A Scottish physician, who devoted some attention to ophthalmology, and who was himself, for a time, almost blind. Born at Haddington, East Lothian, he received his medical degree in 1850 at Edinburgh. He is said to have performed, before his graduation, a Caesarean section, whereby, after the death of the mother, he delivered a living child, who grew up and became a father of a family. After his graduation, Harley studied at Paris, Würzburg, Giessen, Berlin, Vienna and Heidelberg, and, returning to England in 1855, he settled as general practitioner in London. Here he became, in 1856, Instructor in Physiology and Histology at University College, three years later Professor of Legal Medicine, and in 1860 Physician at the University College Hospital. In 1854 he became a Fellow of the *Royal College of Physicians*, and in 1865 of the *Royal Society*. An ardent devotee of the microscope, he acquired, from excessive employment of the eyes in microscopic work, a retinitis which rendered him well nigh blind for nine or ten months. For all of this time he remained in a darkened room, and, after his recovery, wrote an account of his experiences, entitled "*Autoclinical Remarks on Injury of the Retina from Overwork with the Microscope*" (Lancet, 1868). American Encyclopedia of Ophthalmology, Vol.8, p.5700.

Harman, Nathaniel Bishop (1869-1945) British ophthalmologist. Born the seventh child and third son, but the first son to survive, of Walter John Harman of Highgate and his wife née Bellamy, who came of a City family, owners of Bellamy's Wharf. He was educated at the City of London School and at St John's College Cambridge, of which he was a foundation scholar and afterwards Hutchison research student. He took his clinical training at the Middlesex Hospital, qualifying in 1895, and came under the influence of William Lang (1852-1937), with whom he later worked for many years as clinical assistant in the hospital's eye department. He then took first-class honours in both parts of the Natural Sciences Tripos, 1897-98, and was appointed lecturer in anatomy at Caius and King's Colleges, Cambridge. He was also demonstrator of anatomy, and subsequently an examiner in anatomy. Harman volunteered for service in the South African war, as a surgeon to the Field Force. He won the Queen's medal with five clasps, wrote a thesis on veldt sore. When he came back to England he began to practise in London as an ophthalmologist, working at Moorfields (the Royal London Ophthalmic Hospital) as chief clinical assistant to E. Treacher Collins. In 1901 he was appointed ophthalmic surgeon to the Belgrave Hospital for Children. While attaining to a leading ophthalmic practice and making his mark in extra-professional interests, Harman's outstanding work, for which he will be chiefly remembered, was as a pioneer of reforms in the education of children with defective sight. He also made time to take an active part through a long period the central counsels of the British Medical Association, not least as its honorary treasurer for the record period of fifteen years. Harman's chief hospital connexion was with the West London, where he became ophthalmic surgeon 1909, and was ultimately consulting ophthalmic surgeon; he was also lecturer in ophthalmology and dean of the West London Postgraduate College. He served as consultant oculist to the National Institute for the Blind. In 1902 Harman was appointed ophthalmic consultant to the London School Board, a position he continued to hold when the Board's work was taken over by the education department of the London County Council. Working with James Kerr (1862-1941), School Medical Officer for London 1902-11, he persuaded the authorities to institute special classes for defective-sighted children, and later special "myope" or sight-saving schools. This work was beneficial not merely to the children directly concerned, but to those in other countries which quickly followed London's example. Harman became quite a celebrity in America on this count alone. Besides his strictly clinical interest in this problem, Harman was active in designing special equipment for these schools. He was influential in improving school lighting in general and the design of school books. He served on the Departmental Committees on the Causes and Prevention of Blindness in 1920-22 and 1938, and secured the compulsory notification of ophthalmia neonatorum. In connexion with his B.M.A. work he established the National Eye Service 1929, and persuaded the Association to back its central organ, the National Ophthalmic Treatment Board, of which he was chairman, by advancing a substantial loan, which, as he foresaw, was fully and quickly repaid. This body provides qualified eye examination for those unable to afford a private specialist's fee. Two of his books, *Preventable blindness* 1907 and *The eyes of our children* 1915, were addressed to the general public and made some mark. He wrote numerous books and articles on clinical and professional subjects, and invented several widely used ophthalmic instruments. Some of his books and essays are: *The Conjunctiva in Health and Disease* (1905); *Science and Religion* (1935) and *Aids to Ophthalmology* of which the 9th edition was published in 1940. Harman also wrote poetry, and was a contributor to the Hibbert Journal and in some demand as a speaker in the Unitarian Church, of which he was a prominent member. Harman was a member of the Ophthalmological Society of the United Kingdom for forty-five years, and demonstrated to it in 1909 his diaphragm test for binocular vision, which became widely adopted. Harman's connexion with the British Medical Association began in the Marylebone division, which he served successively as honorary secretary, treasurer and chairman; he was also active in the Metropolitan Counties branch, of which he became president in 1922-23. His first contact with the central work of the Association was as a member of the Representative Body at its first meeting in 1903, but he did not attend it again regularly till 1911. In 1915 he was elected to the Council and during 1915-1919 undertook the arduous work of joint secretary of the Central Medical War Committee, which allocated medical men to appropriate national service; his colleague was Alfred Cox, O.B.E., medical secretary of the B.M.A. 1912-32. As chairman of the Hospitals Committee

1920-24, the policy which he successfully promoted was statesmanlike in its anticipation of the evolution of hospital services. In 1924 he was elected honorary treasurer of the Association for five years; he did his work so well that he was twice re-elected, and retired only in 1939. When he took charge of the purse, the Association had newly moved from the Strand to Tavistock Square; Harman was active in his foreseeing guidance of the developments consequent on that move. His advice was also taken about the physical appearance of the Association's house. He was awarded the Association's highest honour, its gold medal, in 1931 and was later elected a vice-president. On the scientific side of the B.M.A. Harman served as chairman of the Council's ophthalmology committee and of the committee of the ophthalmic practitioners' group. He was president of the section of ophthalmology at the Winnipeg meeting 1930. In 1931 he was given an Honorary Doctorate of Laws at Manchester, and was elected an Honorary Fellow of the Royal Academy of Medicine of Ireland in 1933. He served for many years as treasurer of the National Insurance Defence Trust Fund. He was nominated in 1929 a direct representative for England and Wales on the General Medical Council, in the room of Sir Thomas Jenner Verrall, M.R.C.S. (1852-1929); he was later appointed to the Dental Board and became its treasurer. His wife, herself a doctor, endowed in 1926 the Katharine Bishop Harman prize, to be awarded by the Association for research into disorders of maternity. In 1939 he founded a clinical prize and bequeathed £1,000 to the Association to increase this prize. He earned following titles: M.R.C.S. 9 July 1895; F.R.C.S. 8 December 1898; B. A. Cambridge 1897; M.B., B.Ch. 1898; M.A. 1901; Hon.LL.D. Manchester 1931. LFRCS.

Harms, Clemens (1875-1915) German ophthalmologist. Harms was born in Celle, near Hanover. Studied in Tübingen, Berlin, and München and, in 1900, he was honored with approbation and promotion. He spent two years with Uthoff from whom he received especial notice of his work and was enabled to work with Willibald Nagel in Berlin. He was later assistant doctor in the Tübingen Eye Clinic. Besides his smaller works in casuistics and anatomy, he contributed to the scientific knowledge of the pathology of the central vascular system of the retina. In his last publication in volume 87 of Graefe's Archives, shortly before the war, he reported further studies of the same subject. He had also taken up studies of great literary value on other planes which were interrupted by his death. All of his works on the above themes show themselves to be careful critical reviews of "the clinical" material which he collected. *AJO* 1924, 3:488-489

Harnisch, Friedrich Curt (1860-1918) American ophthalmologist of Chicago, who was born in Teuchern, Saxony, and who received his degree in medicine at the University of Leipzig in 1890. He practised for a time at Leipzig, and the date of his move to America has not been learned. He was ophthalmic surgeon to the Alexian Brothers, St. Elizabeth's, and St. Mary of Nazareth's Hospitals. *AJO*, 1:694.

Harper, John (? – 1831) An early American surgeon, of some importance in ophthalmology. The date of his birth is not known. He was, however, a native of Ireland, received his degree at Glasgow, and, emigrating to America, settled in Baltimore. Here he was widely known as a cataract operator, performing, however, merely dislaceration of the capsule. *American Encyclopedia of Ophthalmology*, Vol. 8, p. 5701.

Harrington, David Oliver (1904-1990) American ophthalmologist born in Ocean Park, California. Raised in San Francisco, he received his entire undergraduate and medical training at the University of California (A.B., 1927; M.D., 1931; internship, 1930-1931; residency, 1931-1932). Harrington was the *first* ophthalmology resident physician at the University of California Hospital. Encouraged by Frederick Cordes, then chairman of the Department of Ophthalmology at the University of California School of Medicine, he traveled to Europe for additional training. There, Dr. Harrington initially served as Hospitant at the University of Vienna General Hospital and subsequently as a Fellow at the University of Edinburgh Royal Infirmary and at Moorfield's Hospital in London. In Edinburgh he worked with H.M. Traquair, learning the techniques of quantitative visual field examination and interpretation. This area of investigation was to become a lifelong interest for Dr. Harrington. Upon his return to San Francisco he established a private practice in ophthalmology and became an instructor in the Department of Ophthalmology at the University of California Medical School. Here he also served in the Department of Neurosurgery under the directorship of Howard C. Naffziger. He had the opportunity to

observe patients before as well as after neurologic surgery, thus correlating his visual field studies with the pathologic lesions that produced them. His service with the University of California continued for 40 years. He became emeritus professor in 1974 and then accepted an appointment to work with residents for another ten years, receiving two outstanding teacher awards. During his long career Dr. Harrington developed pioneering visual field screening devices and wrote more than 50 articles in the areas of neuro-ophthalmology and glaucoma. He was also the author of *The Visual Fields-Textbook and Atlas of Clinical Perimetry*, (1956, 2nd ed.1964,3rd.71,4th 76,5th 81,6th 1989) translated into 12 languages. During World War II he served in the Navy as Chief of Ophthalmology for the Pacific Theater and left as a Commander. Harrington was a member of the American Board of Ophthalmology (1964-1973) and its chairman in 1973. He was vice-president of the American Academy of Ophthalmology and Otolaryngology in 1970. He served as a member of the editorial board of the Western Journal of Medicine and also as a governor of the American College of Surgeons. In 1977 he was elected president of the American Ophthalmological Society and in 1981 he was the recipient of the Society's Howe medal. AJO 1990,109:752-753. JPW

Hart, Ernest (1835-1898) British medical editor, hygienist, and oto-ophthalmologist, inventor of gelatine discs for the medication of the eye. Born in London, the son of a dentist, he studied at St. George's and St. Mary's Hospitals. In 1856 he became a member of the Royal College of Surgeons of England. He was for a time prosecutor at St. George's, and, later, instructor in diseases of the eye and ear at St. Mary's. In 1866 he was elected editor of the "*British Medical Journal*-a position which he held until his death. He was also for a long time editor of "*The London Medical Record*" and of "*The Sanitary Record*. In addition to numerous journal articles, he wrote "*A Manual of Public Health*" (London, 1874). In 1893 he received the honorary degree of D.C.L. from the University of Durham.American Encyclopedia of Ophthalmology,Vol.8,p.5702.

Hartridge, Gustavus (1850-1923) British ophthalmologist. Hartridge received his medical education at Kings College, London (M.R.C.S., 1872), and was Hunterian Prosector at the Royal College of Surgeons of England. He was Assistant Surgeon to the Central London Ophthalmic Hospital. Indeed, he filled several hospital appointments. He was Ophthalmic Surgeon to and Lecturer on Ophthalmology at the Westminster Hospital, Surgeon to the Royal Westminster Ophthalmic Hospital, and finally Ophthalmic Surgeon to St. Bartholomew's Hospital, Chatham. He wrote several books, of which the best known is the phenomenally successful "*Manual for Students on the Refraction of the Eye*" (1884) which had reached its sixteenth edition in 1923. Other books were *The Ophthalmoscope*, of which the second edition appeared in 1894; *Retinoscopy* London 1883 and a translation of Schweigger's book on strabismus: *Clinical investigations on Squint* 1887. Hartridge had been Vice-President, Secretary, and a member of the Council of the Ophthalmological Society of the United Kingdom. BJO 1923,7:494. Albert. BMC

Hartshorne, Edward (1818-1885) An American physician, famous, but of slight importance in ophthalmology. Born at Philadelphia in 1818, the second son of Dr. Joseph Hartshorne, he received the degree of A.BI. at Princeton in 1837, that of A.M. at the same institution in 1840, and that of M.D. at the University of Pennsylvania in the same year. In 1844 he went to Europe, where he studied for several years. Returning to America, he settled in Philadelphia, and soon was widely known. His contributions to medical literature were numerous, extensive and valuable. In his practice he paid considerable attention to diseases of the eye, and in 1856 he edited the second American issue of T. Wharton Jones's *Principles and Practice of Ophthalmic Surgery* (Philadelphia, 1856).American Encyclopedia of Ophthalmology,Vol.8,p.5702-5703.

Hartsoeker, Nicolas (1656-1725) Dutch naturalist, of some ophthalmologic importance because of his "*Essai de Dioptrique*" (Paris, 1694; 1696; Dutch trans., Amsterdam, 1699). Born at Gouda, Holland, he studied chiefly mathematics, physics, and astronomy at Leyden and Paris. From 1704 till 1716 he was Professor of Mathematics and Philosophy at Düsseldorf. Later he lived at Utrecht, where he died Dec. 10, 1725.American Encyclopedia of Ophthalmology,Vol.8,p.5703. Albert

Harun, A Q S M (1936-) Bangladesh Ophthalmologist. Born in the district of Chittagong, he pursued his school education in Chittagong Muslim High School and

passed Matriculation examination in the year 1950. He passed Intermediate Science examination from Chittagong Government College in 1952 and in the same year he was admitted in to the Dhaka Medical College. He passed MBBS examination from the University of Dhaka in 1957. In 1958 he proceeded to Aden to join Aden Protectorate Health Service (at present Yemen). He continued to work in Aden till March 1963. For higher studies and training in Ophthalmology he went to the United Kingdom in 1963, and obtained the Diploma in Ophthalmology from London in 1965 and FRCS in Ophthalmology from the Royal College of Surgeons of England in 1970. He obtained the Certificate of Completion of Higher Surgical Training from the Royal College of Surgeons in 1973. He accomplished all of his training in Ophthalmology while working in the National Health Service of the UK at prestigious Institutions like Birmingham and Midland Eye Hospital and Moorfields Eye Hospital. There he worked in close association with famous people like Mr. Roper-Hall and Mr. Montague Ruben, Mr. Jameson-Devans to name a few. He climbed the ladder of the National Health Service in that country and became a Consultant Ophthalmologist in the UK in 1975. He decided to serve his country, and in September 1978 he resigned the Consultant post in the UK and returned to Bangladesh. In Bangladesh he served a short period as Associate Professor in Dhaka Medical College. When the National Institute of Ophthalmology (NIO) was established in November 1979, he joined that Institute in January 1980 as an Associate Professor. Along with the founder Director Professor M.Mabarak Ali he organized various post-graduate training and post-graduate courses in the said Institute. The University of Dhaka and Bangladesh College of Physicians and Surgeons recognized those training and the examinations conducted by the Institute. In 1983 he became Professor of Ophthalmology at the NIO. 1987 Government of Bangladesh deputed Professor Harun to the Bangladesh Institute for Research and Rehabilitation for Diabetic, Endocrine & Metabolic Disorders (in short BIRDEM). Prof Harun with his untiring effort organized the eye department of BIRDEM into one of the finest eye departments of the country. Post-graduate courses were established in that Institute from where many studies have completed training and have obtained their Diploma, Fellowship and Masters in Ophthalmology. He was appointed by the Government of Bangladesh as Director cum Professor of National Institute of Ophthalmology in 1993, and he retired from active Government service from that post in September 1995. On his return to Bangladesh in 1978, Prof Harun became an examiner of the various post-graduate examinations in ophthalmology conducted by the University of Dhaka and Bangladesh College of Physicians and Surgeons, and to date remains an active examiner. He is the pioneer in introducing newer diagnostic and therapeutic methods in the field of ophthalmology in the country namely IOL implantation, Fluorescent Angiography, Laser therapy, Pacoemulsification, etc. He has trained many of his students and colleagues in these fields, which has enriched the ophthalmology of Bangladesh. He was Secretary General of the Ophthalmological Society of Bangladesh (OSB) for three terms (six years) from 1979 and was elected President of OSB for two years in 1995. During his tenure as Secretary General he collected enough funds to pay for the land where OSB Bhavan stands today. He remains Life Member of both OSB and Bangladesh Academy of Ophthalmology (BAO). He is associated with many other organizations, e.g. He is an active member of the Rotary International, of the American Academy of Ophthalmology, life member of All India Ophthalmological Society and fellow of the Royal College of Ophthalmologists of the United Kingdom. He was awarded the Alim Memorial Gold Medal in 1997 by the Ophthalmological Society of Bangladesh for his distinguished work and contribution in the field of Ophthalmology of the country. Prof Harun took active part in the historical language movement (Bhasha Andolan which ultimately culminated in the creation of independent country of Bangladesh) and was imprisoned for this by the then Pakistan Government, while he was still a student of Dhaka Medical College. He has established a school and an Eye Hospital in his village home in Chittagong. Prof Harun has over twenty publications in National and International Transactions. His main interest is in the surgery of the anterior segment of the eye. Though retired from service he is actively involved in the training and education of the post-graduates and remains a guest teacher at the NIO. Prof Harun is married with one son who after his graduation from St. Bartholomew's Medical College in London is at present engaged in higher studies and training in ophthalmology in the United Kingdom. (AB)

Hasbrouck, Sayer (1860-1919) American homeopathic ophthalmologist and otolaryngologist. Born at Middletown, N.Y. Hasbrouck in 1875 entered Cook Academy, at Havana, N.Y. where he graduated in 1879. In the middle of that year he entered the Boston University School of Medicine, graduating in 1882. For a time Dr. Hasbrouck was physician to the New York Homeopathic Insane Asylum at Middletown. Then he went to Dublin, Ireland, and entered the Rotunda Hospital, at the same time studying the eye, ear, nose and throat at St. Mark's Ophthalmic Hospital. Receiving the degree of L. M., he was for a short time house surgeon in St. Mark's. After this he studied the eye, ear, nose and throat at Belfast, Glasgow, Edinburgh and London. At the Royal London Ophthalmic Hospital (Moorfields) he was assistant to Sir George Lawson, and at Gray's Inn Throat and Ear Hospital, to Dr. Hamilton. After a little study on the Continent he returned to America in 1894 and settled at Providence, R. I., as ophthalmologist and otolaryngologist. He was soon widely known in homeopathic circles. AJO 1919,2:705

Hasegawa, Eiichi (1936-) Japanese Ophthalmologist, Professor and Chairman of the Department of Ophthalmology, Kagawa Medical University. He graduated from Okayama University in 1961, studied Ophthalmology under Prof. →AKAGI Goro and Prof. →OKUDA Kanji and received his Doctor of Medical Sciences in 1969 (thesis: *Studies on the primary lesion of experimental retinal siderosis*. No.1: Folia Ophthalmol. Jpn. 16: 636, 1965, No. 2: ibid. 20: 169, 1969, No.3: ibid.20:305, 1969, No.4: ibid. 20: 421, 1969). He was then promoted to the Lecturer in 1967 and to the Assistant Professor in 1974 of Okayama University. He carried out research on vitreoretinal surgery, as a Research Fellow at the Research Institute of Retina Foundation in Boston with Prof. →Schepens C. and →Hirose T. (1981-1982). In 1983, he was appointed the Professor of Kagawa Medical University as above and he is in this position to the present. He is a Councillor of the Japanese Ophthalmological Society (JOS) and a member of the Committee for Continued Education of the Ophthalmology Board of the JOS. He is a member of Schepens International Society and also many Japanese professional Societies. His research interest has been in visual functions, strabismus, binocular vision and has published more than 100 original papers that include "A new apparatus for visual field testing with binocular fixation. Acta. Med. Okayama 32: 247, 1978", "Developmental alteration of the expression and kinase activity of cyclin-dependent Cdk5/p35nck5a in the rat retina. J. Neurochem. 67: 2478, 1996" and "The expression of Ca⁺⁺/calmodulin-dependent protein kinase I in rat retina is regulated by light stimulation. Vision Research 39:3165, 1999". (Department of Ophthalmology Kagawa Medical University. 1750-1 Ikenobe, Kita Miki, Kagawa, Japan.: phone:81-87-891-2209, fax: 81-87-2212, e-mail: hasegawa@kms.ac.jp)(SM)

Hasner, Joseph, Ritter von Artha (1819-1892) Austrian Ophthalmologist, discoverer of "the valve of Hasner." He was born at Prague, and there, in 1840, received his medical degree. For the next two years he was "secundärarzt" in the General Hospital at Prague, where he succeeded →Arlt as first assistant in Fischer's eye clinic. In 1852 he was made extraordinary, and, in 1856, on Arlt's move to Vienna, ordinary, professor. This full professorship, in 1884, he resigned, though he had not quite reached the age limit, because, owing to the foundation of the Czech University, his clinic was divided, and half of it assigned to the newly established institution. The division of his clinic gave him, in fact, a deep offense, from which he never fully recovered. His more important publications are: 1. *Entwurf einer Anatomischen Begründung der Augenheilkunde* (Prague 1847). 2. *Physiologie und Pathologie des Thränenableitungsapparats* (Prague 1850). 3. *Klinische Vorträge über Augenheilkunde* 3 parts (Prague 1860-66). 4. *Beiträge zur Physiologie und Pathologie des Auges* (Prague, 1873). 5. *Die Grenzen der Accommodation* (Prague, 1875). 6. *Pharmakologische studien* (Prague, 1868). 7. *Das Mittlere Auge in seinen Physiologischen und Pathologischen Beziehungen* (Prague, 1879). 8. *Die Verletzungen des Auges in Forensischer Hinsicht* (1880). 9. *Die neueste Phase der Staaroperation* Prag 1868. 10. *Die Statopathien(?) des Auges* Prag 1869. 11. *Tycho Brahe und Johann Kepler in Prag. Eine Studie.* Prag 1872. 12. *Über die Benützung foliierter Glaslinsen zur Untersuchung des Augengrundes.* Prag 1855. 13. *Filosofie des Rechts und seiner Geschichte in Grundlinien* Prag 1851 He also published a very large number of journal articles, and was for a long time one of the associate- editors of the "*Prager Medicinischen Vierteljahrsschrift.*" American Encyclopedia of Ophthalmology, Vol.8, p.5703-5704. Albert.BMC



Bunpei Hata

Hata, Bunpei (1890-1964) Japanese Ophthalmologist. He graduated from Tokyo University in 1916, studied Ophthalmology under Prof. S. ISHIHARA and also studied ocular immunology in the Postgraduate School of Medicine. He was granted the degree of Doctor of Medicine in 1926. He was invited to Okayama University as Professor and Chairman of the Department of Ophthalmology in 1926 and the same year he attended the International Congress of Ophthalmology. He served for 21 years as the Professor; he also served as the Director of the University Hospital. In 1940 at the 44th Congress of the Japanese Ophthalmological Society, he delivered a special lecture "*Ophthalmological studies of Encephalitis japonica*". He retired from the University in 1947 and the next year he was granted the title Professor Emeritus of Okayama University. (SM)

Hauksbee *see* **Hawksbee**

Häuy, Valentin. (1745-1822) A French philanthropist who, about 1782, first made tangible letters practically available for the blind and, later, established schools for teaching and training the sightless. He devoted his life to the education of the blind, and in 1786 wrote *Essai sur L'Education des Aveugles* (1786). American Encyclopedia of Ophthalmology, Vol.8,p.5705.

Havers, Clopton. An English anatomist of the late 17th and early 18th centuries, of some slight ophthalmologic importance because of his "Extraordinary Bleeding at the Glandula Lacrymalis" (*Philos. Trans.*, 1694, Vol. III). American Encyclopedia of Ophthalmology, Vol.8,p.5705.

Hawksbee, also Hauksbee, Francis (? – c.1713) An English physicist who was already a well-known experimentalist when in 1705 he was admitted a Fellow of the Royal Society. (He should not be confused with Francis Hawksbee the younger, 1687-1763, apparently his son, who was also an electrical engineer and skilled instrument maker, and who, in 1723, was appointed clerk and housekeeper to the Royal Society.) Hawksbee the elder contributed forty-three memoirs to the *Philosophical Transactions*, chiefly on chemistry and electricity, between 1704 and 1713. His chief independent work, published in 1709, titled *Physico-Mechanical Experiments on Various Subjects touching Light, and Electricity producible on the Attrition of Bodies*. He is also well known as the improver of the earlier air-pumps of →Papin and →Hooke, and as the *first* who used glass in the electrical machine. American Encyclopedia of Ophthalmology, Vol.8,p.5705-5706

Hawley, Alanson Webster (1865-1920) American ophthalmologist of Seattle, born at Aurora. Ill., He received his degree at Rush Medical College in 1891, and practiced general medicine in Chicago for ten years. In 1901 he studied the eye, ear, nose and throat at the Royal London Ophthalmic Hospital, London, and the following year settled as ophthalmologist and oto-laryngologist at Seattle. He was attending physician to the Illinois Eastern Hospital from 1897-1901, oculist and aurist to the Chicago, Milwaukee and St. Paul Railway and to the Children's Orthopedic Hospital, Seattle, from 1918 until his decease. He was a well known collector of rare books, and was one of the pioneer workers for medical inspection in the public schools, and in many other movements for the welfare of the community.

Hay, Gustavus (1830-1908) American ophthalmologist of Boston, Mass. He was born in Boston, and received the degree of Bachelor of Arts at Harvard in 1850, graduated from the Lawrence Scientific School in 1853, and then, for a year, was connected with the work of the U. S. Coast Survey in the South. Deciding to study medicine, he entered the Harvard Medical School in 1854, and there received his professional degree in 1857. At first he settled in Boston as a general practitioner. Soon, however, he decided to become an ophthalmologist, and, in order to prepare himself as thoroughly as, possible for the work of his new vocation, he studied for a time in Vienna. Here the teachers who chiefly influenced him were →Jaeger and →Arlt. Returning to Boston, he practiced ophthalmology and was very successful. From 1861-1873 he was one of the attending surgeons of the Massachusetts Charitable Eye and Ear Infirmary, and from 1873-1900 he was one of the consulting staff of the same institution. American Encyclopedia of Ophthalmology, Vol.8,p.5707-5708.

Hay, Percival John (1875-1943) British ophthalmologist of Sheffield born at Basle, Switzerland. His father was John Hay, a Scotsman, who became Professor of English in

Basle University. Hay was educated at Basle and before commencing Medicine at Edinburgh he was for a year an undergraduate at Basle University. He graduated M.B., Ch.B.Edin. in 1901, and M.D. with high commendation three years later. He held Resident appointments at the Birmingham and Midland Ear and Throat Hospital and the Birmingham and Midland Eye Hospital, after which, in 1908, he started practice in Sheffield as an Ophthalmic Surgeon, and for a time acted as Clinical Assistant to the late Simeon Snell at the Sheffield Royal Infirmary. He was appointed Honorary Ophthalmic Surgeon to the Beckett's Hospital, Barnsley, in 1910, Honorary Ophthalmic Surgeon to the Sheffield Royal Hospital in 1916, and at about the same time, Ophthalmic Surgeon to the Sheffield Education Committee. During the 1914-18 War he served as Captain in the R.A.M.C and was for some time "Ophthalmic Specialist" to the Cambridge Hospital, Aldershot. At the commencement of the Second World War he immediately went back into hard hospital practice in order to relieve a colleague who had been mobilized. There is no doubt that the extra work which he put in during these three years contributed in no small measure to the illness which caused his death. It was just before the outbreak of War in 1914 that Hay, in association with the late Gray→Clegg, of Manchester, was instrumental in founding the North of England Ophthalmological Society; he became its Honorary Secretary and remained so until his death, combining the office with that of President in 1931-32. It was as Secretary of the North of England Society, that Hay showed his genius for organization. Regular Clinical Meetings were instituted at Manchester, Bradford, Leeds, Newcastle, Liverpool and Sheffield, and a first class Pathological service established. The outstanding success on such occasions as the joint meetings with the Midland Ophthalmological Society, the Scottish Ophthalmological Club, and the Royal Society of Medicine, was entirely due to his untiring efforts. He was responsible for the annual lectures given to the North of England Society by men of the calibre of Van der Hoeve, Magitot, Gjessing, von Rohr, Ronne, Goulden, Ballantyne, Duke-Elder, Traquair and Roaf. Perhaps his most outstanding success was the organization of his famous tours -in 1935 it was Germany, Austria and Italy -in 1937 the Scandinavian countries, and in 1939 the U.S.A. and Canada. It can be truthfully said that Hay devoted his life to Ophthalmology. As Lecturer in Ophthalmology at the Sheffield University he was tireless in his efforts to improve the teaching facilities, both in the lecture room and at hospital, and he pressed hard for the founding of a Chair in Ophthalmology. He contributed widely to ophthalmic literature and in 1929, he delivered the Richard Middlemore Lecture on "Astigmatism". He was a Vice-President of the Ophthalmic Section of the Royal Society of Medicine; was a Past President of the local Division of the B.M.A., and a Past President of the Sheffield Medico-Chirurgical Society. In later years he achieved two of the highest honors which can come to a British Ophthalmologist: he became Master of the Oxford Ophthalmological Congress in 1939, and in 1942 was elected President of the Ophthalmological Society of the United Kingdom. BJO 27,140-142,1943



Ryuzo Hayano

Hayano, Ryuzo (1881-1961) Japanese Ophthalmologist who graduated from Tokyo University in 1907 studied Ophthalmology under Prof. →J.KOMOTO. He also studied in Wuerzburg under Prof.→Hess for one year 1912-1913. On his return, he was appointed the Head of the Eye Department of Keijo (now Seoul Korea) Hospital and the Professor of Ophthalmology of Keijo Medical School. In 1921 he submitted a thesis and received a Doctor of Medical Science from Tokyo University. On the basis of this Medical School, Keijo Imperial University was founded in 1926. He was promoted to the Professorship of the University and served as the first Director of the University Hospital. He served as the President of the 36th Congress of the Japanese Ophthalmological Society held in Seoul. He retired from the University in 1942, and subsequently he served as the Director of Keijo Public Hospital. During his tenure, he trained many Korean Ophthalmologists and they played key roles in eye public health in the postwar Korean Society. The University is the present Seoul National University, Korea. In 1942, he was invited to be the Director of Toyohashi National Hospital and he served until 1960. He was interested in hunting and was a winner at clay pigeon shooting. In 1961, the Second Order National Merit with Middle Cordon of the Rising Sun was conferred on him in recognition of this life time service. (SM)

Hayano, Saburo (1923-) Japanese Ophthalmologist, Professor Emeritus of Gifu University. Born as the son of HAYANO Ryuzo, he graduated from Nagoya University in

1946, studied Ophthalmology under Prof. →NAKAJIMA Minoru and was invited as the Lecturer to Shinshu University under Prof.→KATO Seiichi, and then promoted to the Assistant Professor in 1951. He submitted his thesis (*Studies of retinal amino-acids*. J. Jpn. Ophthalmol. Soc. 55: 191, 1951) to Nagoya University and received the degree Doctor of Medical Sciences in 1953. He was appointed the Professor and Chairman of the Department of Ophthalmology of Gifu University in 1970 and worked in this position until 1983: he served as the Dean of the Gifu University School of Medicine in 1981-1983. He was then elected to be the President of Gifu University and served until 1989. He is the pioneer of intraocular lens implantation in Japan and he designed various types of the intraocular lens. Two examples of his publications are "*Keratoprosthesis and intraocular lenses; artificial cornea implant*. J. Jpn. Ophthalmol. Soc. 69: 1871, 1965" and "*Intraocular lenses - on the basis of high polymers*. J. Jpn. Ophthalmol. Soc. 90: 25, 1986". He is an Honorary Member of Japanese Ophthalmological Society, Japan Contact Lens Society, Japanese Society for Cataract Research and Japanese Society of Cataract and Refractive Surgery. He is a Life Member of the International Intra-ocular Implant Club, and Emeritus Member of the Contact Lens Association of Ophthalmologists, and the Founding Member of the American Society of Cataract and Refractive Surgery. He is a recipient of Louis Emil Javal Silver Service Award(1978, 1986) and Asia-Pacific Intraocular Implant Association Medal(1991). In recognition of his meritorious service, the Government conferred on him The Second Order of the Rising Sun in 1996.(SM)

Hayasaka, Seiji (1944-) Japanese Ophthalmologist, Professor and Chairman of the Department of Ophthalmology, Toyama Medical and Pharmaceutical University. He graduated from Tohoku University in 1969, studied Ophthalmology under Prof.→MIZUNO Katsuyoshi at the Postgraduate School of Medicine of the University and received his Doctor of Medical Sciences in 1973 (thesis: *Control of ?-aminolevulinatase synthetase activity in Rhodopseudomonas spheroides. III Partial purification of the fraction I activating enzyme and the occurrence of two forms of fraction II*, J.Biochem. 76: 157,1974). He carried out research on Lysosomes and the eye, as a Research Fellow at the Yale University with Prof.→SEARS, M. L. (1977-1978) (*Distribution of acid phosphatase, ?-glucuronidase and lysosomal hyaluronidase in the anterior segment of the rabbit eye*, Invest. Ophthalmol. Vis. Sci. 17: 982,1978). He is in the present position since 1994. His research interest has been metabolic and genetic eye diseases, and some examples of his many original publications are "*Lysosomes and the eye*. in Ed. Dingle, J. T. et al. *Lysosomes in Biology and Pathology*, Elsevier Sci. Publ. Amsterdam, Vol 7: 421, 1984" and "*Interferon associated retinopathy*. Br. J. Ophthalmol. 82: 3323, 1998". He is a Councillor of the Japanese Ophthalmological Society. (Department of Ophthalmology, Toyama Medical and Pharmaceutical University, 2630 Sugitani, Toyama,930-0152 Japan; phone: 81 -76-434-7363, fax: 81-76-436-0146,e-mail:ophthal@ms.toyama-mpu.ac.jp)(SM)



Yuzo Hayashi

Hayashi, Yuzo (1891-1991) Japanese Ophthalmologist, graduated from Kyoto University in 1917, studied Ophthalmology under Prof.I.→ASAYAMA, and was invited to Tohoku University, Sendai as a lecture then promoted to Assistant Professor in 1921. After having received the degree of Doctor of Medical Science from Kyoto University, he studied in Germany for one year in 1925. He was then appointed the Professor and Chairman of the Department of Ophthalmology of Nagasaki University in 1935 and served until 1942 when he moved to Tohoku University as the Professor after the retirement of Y.KOYANAGI. He was President of the 68th Congress of the Japanese Ophthalmological Society held in Sendai, and gave a special lecture on "Ocular allergy". In 1955, he retired from the University and served as the Director of Tohoku Kosei-Nenkin Hospital (a main Public Hospital in Sendai) for 9 years. He became Professor Emeritus of Tohoku University and Emeritus Member of the Japanese Ophthalmological Society. (SM)

Hayashi, Fumihiko (1925-) Japanese Ophthalmologist, Director of Hayashi Eye Hospital. He graduated from Kyushu University in 1948, studied Ophthalmology under Prof. →IKUI Hiroshi and received the degree Doctor of Medical Sciences in 1955 (thesis: *Experimental studies of the pathogenesis of papilloedema*. J. Jpn. Ophthalmol. Soc. 59: 1433, 1955). He is a pioneer of Microsurgery and Intraocular Lens Implantation in Japan. He delivered a Special Lecture "*Cataract surgery as a closed micro-surgery*" at the 20th Congress of the Japan Society of Ophthalmic Surgeons in 1997. He served as the

President of 5th Meeting of the Microsurgery Research Group (1972), 5th Congress of the Japan Society of Ophthalmic Surgeons (1982), 26th Congress of the Japanese Society of Cararact Research (1987), 2nd Congress of the Japanese Society of Cataract and Refractive Surgery (1987), 3rd International Congress of Intraocular Implant and Refractive Surgery (1989) and Japan-Korea Joint Meeting of Ophthalmology (1992). He wrote many books on microsurgery, e.g. "*Microsurgical Instruments, suture materials, In System of Ophthalmology*, Vol.9, Nakayama Publ. Co. Tokyo 1993" and "*Present state of Intraocular lens implantation*. Ophthalmology Mook, Kanehara Publ. Co. Tokyo, 1992". He served as the gracious host for the WHO Workshop for the Eye Care of the Elderly in 1998. He is a recipient of the Highest Honor Award of the Japan Medical Association. He serves many domestic organizations as an executive board member and is the President of Ophthalmologists Association of Fukuoka Prefecture. (Hayashi Eye Hospital, 4-7-13, Hakata-Ekimae, Hakata-ku, Fukuoka, 812-0011, Japan. phone: 81-92-431-1680, fax:81-92-441-5303, e-mail: fhayashi@po.iijnet.or.jp)(SM)

Hayden, Thomas (? -1881) An Irish physician, of some ophthalmologic importance because of his "*Function of the Yellow Spot of Soemmering Circular Vision*" (1858). He was born in Tipperary, became 1850, Licentiate of the Royal College Of Surgeons of Ireland very shortly afterward Instructor in Anatomy at the Ledwich of Medicine in Dublin. In 1855 he was appointed Assistant of Anatomy and Physiology at the Dublin (Catholic) University. American Encyclopedia of Ophthalmology, Vol.8,p.5706.

Hayreh, Sohan Singh (1927-) American Ophthalmologist of Indian Origin. Professor Emeritus (since 1999) and Director of Ocular Vascular Clinic and Ocular Vascular Research Laboratory (since 1973), University of Iowa, U.S.A. He graduated from the Panjab University (India) with M.D. degree in 1951. He was on the faculty and did teaching and research at one of the medical colleges of the Panjab University (1955-1961), and was granted a Master of Surgery in 1959 (Thesis: *A study of the central artery of the retina in human beings*). He was Beit Memorial Research Fellow at the Institute of Ophthalmology, University of London under Sir Stewart→Duke-Elder (1961-1964), and received Ph.D. (1965) (Thesis: *Pathogenesis of oedema of the optic disc (papilloedema)*, and later Doctor of Science (1987) (based on his original and seminal scientific contribution in the field of "Ocular Circulation in Health and Disease, and Optic Nerve Disorders") from the University of London. He became a Fellow of the Royal Colleges of Surgeons of Edinburgh (Ophthalmology) and of England (Ophthalmology) in 1969. He served on the faculty of the Institute of Ophthalmology, University of London (1965-1969) and later University of Edinburgh (1969-1973), and finally as a Professor of Ophthalmology, University of Iowa, U. S. A. (1973-1998). His major field of research has been ocular circulation, fluorescein angiography, retinal and choroidal disorders, optic nerve disorders, fundus changes in malignant hypertension, nocturnal arterial hypotension, ocular neovascularization, glaucoma, and Rheumatological ocular disorders. Since 1958, he has published many original and seminal papers, monographs and books in his field of research. Some examples are "*Anterior ischemic optic neuropathy*. Springer-Verlag, Heidelberg 1975" and "*Blood supply and vascular disorders of the optic nerve*. Anal. Instit. Barraquer 4: 7, 1963". He received many honors and gave named lectures including the Duke-Elder Medal and Lecture of the Royal College of Ophthalmologists (1995), von Sallmann Prize of the International Society for Eye Research (1994), William Mackenzie Medal and Lecture of University of Glasgow (1988), Morrison Lecture of the Royal College of Physicians of Edinburgh (1988), Alcon Recognition Award (1987), Edward Nettleship Prize of the Ophthalmological Society of the United Kingdom (1971), Middlemore Prize of the British Medical Association (1966), Norman McAllister Gregg Prize from Australia (1963), Watumul Prize by Watumul Foundation Honolulu (1964), Arris and Gale Lecture of the Royal College of Surgeons of England (1963), International Institute Barraquer Barcelona Prize (1963) and Shakuntala Amir Chand Prize of the Indian Council of Medical Research (1961). (Department of Ophthalmology and Visual Sciences, University of Iowa Hospitals & Clinics, The University of Iowa, 200 Hawkins Dr. Iowa City, Iowa 5242-1091, U. S. A. phone: +1-319-356-2947; fax: +1-319-353-7996; e-mail: sohan-hayreh@uiowa.edu)

Hays, Isaac (1796-1879) American ophthalmologist, medico-economist, author and editor. Born at Philadelphia, Penna., he received his general education at the University of

Pennsylvania, obtaining the degree of A. in 1816. For a time, owing chiefly to the influence of his father, prominent merchant, he devoted himself to commercial pursuits. His natural tendencies, however, soon asserting themselves, he began to study medicine under the private instruction of Dr. Nathan Chapman. Later he entered the Medical Department of the University Pennsylvania, from which institution he received his degree in 1820. His thesis, on that occasion, was characteristically entitled "*Sympathy*." He then, for a time, devoted himself especially to the study of ophthalmology. In 1822 he became surgeon to the Pennsylvania Infirmary for Diseases of the Eye and Ear, and, beginning in 1834, he was surgeon to Wills Eye Hospital for twenty years. He reported the *first* case of astigmatism observed in America, and the fifth in all the world. He was also the *first* to report a case (that of Mary Bishop) of pathologic (not congenital) color-blindness. In February, 1826, he became one of the editors of the "*Philadelphia Journal of the Medical and Physical Sciences*," which had been established six years before. A few months later, Dr. Hays was made sole editor of this journal, and then it was that he exchanged its title for one much better known "*The American Journal of the Medical Sciences*." In 1869 he began to be assisted in his work as editor by his son, Dr. I. Minis Hays, but continued to act as editor-in-chief until his death, over fifty-two years. Dr. Hays was never a teacher of medicine—a fact, no doubt, some part due to his natural timidity before an audience. Among the articles he wrote and the books which he either wrote or edited, are these. 1. *The Forces by which the Blood is Circulated*. (A leading article in *The Philadelphia Journal of the Med. and Phys. Sciences*, 1826.) 2. *Purulent Ophthalmia*. (*Phila. Jour. of the Med. and Phys. Sciences*, 1827.) 3. Wilson's "*American Ornithology*." (Edited by Dr. Hays, 3 vols., 1828.) 4. Broussais' "*Chronic Phlegmasia*." (Trans. by Hays and Griffith; 2 vols., 1831.) 5. *Diseases of the Eye*. (A chapter in Dewees' "*Practice of Medicine*," 1833.) 6. *The American Cyclopaedia of Practical Medicine and Surgery: digest of Medical Literature*. (Only 2 vols. issued—from A to Axilla -Phila., 1834-36.) 7. Laurence's "*Treatise on Diseases of the Eye*." (New ed. by Dr. Isaac Hays, 1843.). American Encyclopedia of Ophthalmology, Vol.8, p.5708-5709.

Heath, Frederick Carroll (1857-1918) American ophthalmologist of Indianapolis, Ind., born at Gardiner, Me., where he received the A.B. at Amherst in 1878, the A.M. in 1886, and the M.D. at the Maine Medical College (Bowdoin) in 1884. Shortly afterward he studied the eye, ear, nose and throat, and settled in Indianapolis as a specialist in the diseases of these organs. Heath was assistant surgeon in the U. S. Marine Hospital Service for six years, Secretary of the Indiana State Medical Society for fourteen years, eye surgeon to the Indianapolis City Hospital and Dispensary, to The German Lutheran Orphan Asylum, and The Eleanor Hospital; also professor of ophthalmology at the Indiana University Medical College from 1905 until his death. *AJO* 1919,2:166

Heberden, William (1710-1801) British physician of London. Heberden received his M.D. in 1739 at Cambridge University; he practiced and lectured on materia medica in Cambridge for ten years before settling in London. In ophthalmology, he wrote: *Of the night blindness or nyctalopia* London 1768.

Hecht, Selig (? – 1947) American physiologist of New York, renowned for his works on the physiology of vision and particularly on colour vision. His work in the field of vision is well known to all. No one in his time, has done more than he to put the duplicity theory on a sound basis, or to throw light on the factors concerned with the acuity of vision. He attended 1947 the International Physiological Congress at Oxford and the Conference on Colour Vision at Cambridge. Hecht devoted his life's work to biochemical problems (In the *Annual Review of Biochemistry*, Vol. XI, 1942, he has given a historical review of researches on the chemistry of visual substances, with a complete bibliography). *BJO* 32,62-63,1947

Hecker, Carl Friedrich Franz (1812-1878) German surgeon and ophthalmologist who was born near Heidelberg, where he received his M.D. in 1835. He taught surgery and ophthalmology at the University of Freiburg (1836-1871). He authored: *Erfahrungen und Abhandlungen im Gebiete der Chirurgie und Augenheilkunde*. Erlangen 1845 and *Die Elephantiasis oder Lepra Arabica* Lahr 1858. Albert.BMC

Hecquet, Philippe (1661-1737) French physician of but small ophthalmologic importance who was born at Abbeville, France, Feb. 11, 1661. He studied at first theology in Paris;

later, medicine at Rheims. Soon after leaving Rheims, he practised for a time in his native town. Tiring, however, of the uncongenial atmosphere of this place, he removed to Paris. Being there forbidden by the "Faculty"-to engage in practice, he accepted a position as medical attendant in a religious foundation at Port-Royal-des-Champs. When 33 years of age he attacked his medical studies anew, received his license in 1696 and his doctorate in 1697. So highly honored was he, after a time, by the Faculty, that, in 1712, he was elected Dean. In 1727 he withdrew to a Carmelite cloister, where he lived the ascetic life until his death. Hecquet wrote a large number of works, all of which were, at least in greater part, relevant to systematic medicine only. In one of his books (that entitled *Remarques sur l'abus des purgatifs et des amers ... et sur l'utilité de la saignée, dans des maladies des yeux* ... Paris 1729) he takes the ground that the lens is seated, not immediately behind the pupil, but in the middle of the eye, and, furthermore, that a cataract is a membrane lying between the pupil and the lens, and is formed of corrupted and inspissated "humor." These opinions, which had come down from the ancients, and were, even at the date of Hecquet's book, becoming decidedly antiquated, evoked from Petit three well-written letters, which are almost classics in the history of ophthalmology. American Encyclopedia of Ophthalmology, Vol.8, p.5729. Albert

Heed, Thomas D. (1875-1957) American businessman and benefactor, initiator of the Heed Ophthalmic Foundation. The foundation is a unique organization, conceived by Mr. Heed in conjunction with his wife, who survives him and who is dedicated to carrying on the activities and interests of the foundation. It was established in 1945, at which time a small board of men outstanding in the profession was created by them, and the First National Bank of Chicago was appointed trustee of the funds. It was Mr. Heed's joy to see some of the results of the fellowships which he made possible during his life time, rather than to provide for such a foundation after the death of himself and his wife. He, therefore, allocated certain sums of money throughout the intervening years, as a result of which 41 young men have been enabled to progress further with their careers and their studies and thus make greater contributions to ophthalmology than would otherwise have been possible. Heed was well known for his activities, other than those related to young students of ophthalmology. He was active and successful in the business world, both of Chicago and New York. He was born in Saint Louis, in 1875. From there he went to college in Emporia, Kansas, and entered the railroad service in the general auditor's office of the M. K. and T. Railroad. He then became cashier of the Southwestern Passenger Bureau and chief clerk of the treasury department of the St. Louis and San Francisco Railroad. He later became assistant secretary and treasurer of the same road, and still later held the same offices in the Chicago and Eastern Illinois Railroad. In 1913-15 he was president of the latter, and later became its receiver. From 1921 to 1931 he was a director of this road, and also of the St. Louis and San Francisco Railroad. He was president and director of many outstanding companies, with varying interests; especially was he associated with land and mining interests in the West. Still other interests were in the lumber business. One of the last of these was that of director of the Edward Hines Lumber Company, of Chicago. From 1942 to 1945, he served as chairman of the Chicago Division of the United States Navy Price Adjustment Board, in connection with which, in January, 1946, he received the Navy's highest civilian award for outstanding service with this board from October, 1943, to January, 1946. Mr. Heed was well known socially, both in Chicago and New York. He was a member of the Midday and Tavern Clubs of Chicago, and the Midday Club of New York. AJO 1957,43:801-802. see also <http://www.heed.org> .JPW

Heermann, G. (1807-1844) German ophthalmologist of Tübingen, Germany. He was born at Blomberg, Lippe-Detmold, and became an assistant at the Insane Asylum in Siegburg in 1833, and from 1835 to 1840 was privat docent and assistant at the Academic Hospital in Heidelberg. In 1840 he moved to Tübingen, where he became professor extraordinary. He was a brilliant diagnostician and therapist. His more important writings are as follows: 1. *Ueber die Bildung der Gesichtsvorstellungen aus den Gesichtsempfindungen.* (Hanover, 1835.) 2. *Über das Studium der Psychischen Medicin auf Universitäten, als das nächste Erforderniss ihrer Förderung (heidelberg 1837)* American Encyclopedia of Ophthalmology, Vol.8, p.5730-31. Albert. BMC

Hegar, Johann August (1794-1882) German surgeon, of some slight ophthalmologic importance because of his Göttingen dissertation, "*De Oculi Partibus Quibusdam*"

(Göttingen, 1818, 2 plates). Born at Darmstadt, Germany, in 1794, he received his medical degree at Göttingen in 1815, and, in the same year, as military physician, accompanied the English army on its expedition against France. Settling in Darmstadt, he there became, in 1817, Court-Surgeon, "with the character of a court-physician." He also became Privy Medical Advisor. American Encyclopedia of Ophthalmology, Vol. 8, p. 5732

Heiberg, Hjalmar (1837-1897) Norse microscopist and ophthalmologist. Born at Christiania, son of Prof. Christen Heiberg, he was from 1859 till 1863 assistant at the Imperial Hospital and Lying-in Asylum, and in 1863 and 1864 studied his profession abroad. Returning to Christiania, he devoted himself to microscopy and ophthalmology. His ophthalmologic writings are as follows: 1. *Periferien af Tunica Descemeti og dens Indflydelse paa Accommodationen*. 2. *Om Gliomets Malignitet*. . (In collaboration with J. →Hjort; also the same in von Graefe's Archiv, 1869.) 3. *Zur Anatomie der Zonula Zinnii*. (*Centralbl. f. d. Med. Wissensch.*, 1865.) 4. *Ueber die Neubildung des Hornhautepithels*. (*Med. Jahrb. der k. k. Gesellsch. der Aerzte in Wien*, 1871.) 5. *Ein Fall von Panophthalmitis Puerperalis bedingt durch Mikrokokken*. (*Centralbl. f. d. Med. Wissenschaften*, 1874.) 6. *Tilfaelde af Hemiopi og Afasi*. (*Norsk Mag. f. Laegev.*, 1874.) 7. *Cyclopische Missbildung bei einem Kalbe*. (Ibid, 1878.) American Encyclopedia of Ophthalmology, Vol. 8, p. 5732

Heidenreich, Friedrich Wilhelm (1798-1857) A distinguished German physician, who paid considerable attention to ophthalmology. Born at Rostall, he received the degree of Doctor in Medicine in Würzburg in 1821. After a year of further study, chiefly in Berlin, he settled in 1824 as general physician at Ansbach, where he practised until his death. His only ophthalmologic writing was "*Die Subcutane Blepharotomie gegen Subcuten Augenliderkrampf und Krankhafter Entropium*" (Ansbach, 1844). American Encyclopedia of Ophthalmology, Vol. 8, p. 5733.

Heineken, Philipp Cornelius (1789-?) German physician, who paid considerable attention to ophthalmology. Born in Bremen the son of Johann Heineken, he received the degree of Doctor in Medicine at Göttingen in 1811. After a scientific journey through Hungary, Italy and France, he settled in 1813 as general practitioner in Bremen. His only ophthalmologic writing was "*Ophthalmobiotik, Regeln und Anweisung, zur Erhaltung der Augen*" (Bremen and Leipsic, 1815). He also wrote: *Die freie Hansestadt Bremen und ihr Gebiet in topographischer, medizinischer und naturhistorischer Hinsicht geschildert*. (2 vols.) Bremen 1836. American Encyclopedia of Ophthalmology, Vol. 8, p. 5733. Albert. BMC

Heisrath, Friedrich (? -1904) German ophthalmologist of Königsberg, Germany. The date and place of his birth are unprocurable. He practised at Königsberg for many years, and was known as a dexterous operator. His contributions to ophthalmic science and literature are chiefly on the subject of the surgical treatment of trachoma. American Encyclopedia of Ophthalmology, Vol. 8, p. 5733-5734

Heister, Elias Friedrich. Born at Altdorf, Germany, the son of Laurent Heister, he studied medicine at Helmstädt, Berlin, and Leipzig, received his professional degree at Helmstädt in 1738, and died a little over two years later, while traveling in Holland. He wrote a diatribe against the great English oculistic charlatan John Taylor. American Encyclopedia of Ophthalmology, Vol. 8, p. 5734

Heister, Lorenz (1683-1758). A celebrated German surgeon and a noted ophthalmologist. Born, the son of an innkeeper at Frankfort a. M., he studied medicine at Giessen, Leyden and Amsterdam. He finally received his professional degree at Harderwyk, May 31, 1708, and, following year, was made superior physician of the Dutch Army. In 1710 he became professor of botany at Altdorf. In 1720 he was called to the chair of surgery at Helmstädt, and here he worked for many years until his death. Not strikingly original, he nevertheless deserves his title of "*father of scientific surgery in Germany*" because of his open mind, his sound judgment, his numerous writings and the excellence of his literary style. He knew in great detail all the surgical literature which had been composed until his day, and, from this, he selected with wellnigh unerring accuracy whatever was really practical and valuable and set it forth so beautifully and charmingly, that it found at once a numerous body of readers. Heister's "*Surgery*" appeared first in 1718. Other editions (all German) followed in 1724, 1731, 1745, 1747, 1770, 1779. Latin editions appeared in 1739, 1750 and 1759. The work appeared also various times in Dutch, Italian, French, Spanish, and

English. Heister was a man of unflagging industry and well-nigh infinite scholarship. He read, wrote and fluently spoke a number of foreign languages, and, merely as incidental aids to the art of exposition, acquired a pretty thorough knowledge of glass-cutting and of engraving on copper. Ophthalmologically, Heister possesses importance because of his adoption and introduction into Germany of the (then) new and startling doctrine that a cataract is not, as had been taught by the ancients and those of mediaeval days, a deposit of inspissated "humor" in a (wholly imaginary) space between the pupil and the lens, but hardening and clouding of the lens itself (*Vindicae sententiae suae de cataracta, glaucomate et amaurosi* Altorf 1719; *De cataracta glaucomate et amaurosi* Altorfi 1720, Italian edition: *Trattato della cataratta, del glaucoma, e dell'amaurosi* Venezia 1770, *Compendio anatomico La dissertazione intorno la membrana coroidèa dell'occhio* Venezia 1772). A memorial-tablet and effigy of Heister were erected in 1869 in the Frankfort tavern in which the great man was born, and these strange mementos (unusual indeed in the case of physicians) are still to be observed in the old 17th century inn. American Encyclopedia of Ophthalmology, Vol.8, p.5734-5735. Albert.BMC

Heitz, Robert Fernand (1932-) French ophthalmologist and historian. Heitz was born in Haguenau, Alsace, France. He went to Strasbourg and received his MD in 1960. His internship was served at the Hôpitaux de la Région Sanitaire de Strasbourg from 1956 to 1960 and he became ophthalmologist under Jean→Nordmann in 1963. Heitz was assistant at the Institut de Parasitologie of the Strasbourg University from 1961 to 1962, Director of Clinical Education at the Strasbourg Louis Pasteur University from 1983 to 1997. He was Head of the Ophthalmic Clinic at the Centre Hospitalier de Haguenau and expert to the Head of the Hospitals at the Minister of Public Health in Paris and to the French Agency of Health Products (as President of the Commission for Homologation and Material Control in Ophthalmology). He is a member of the Société Française d'Ophthalmologie; Deutsche Ophthalmologische Gesellschaft, Société d'Ophtalmologie de l'Est de la France, Société française des Ophtalmologistes adaptateurs de Prothèses de Contact, European Contact Lens Society (ECLSO), (Founder, then treasurer). Société d'histoire de la médecine, Société francophone d'histoire de l'ophtalmologie, Julius Hirschberg Gesellschaft fuer Geschichte der Augenheilkunde. Heitz received the *Fick-Kalt-Müller* Medal from the ECLSO in 1983 and the Louis Emile Javal Silver Service Distinction from the International Contact Lens Council of Ophthalmology in 1986. He was the founder, then from 1979 to 1991, Editor in Chief of both , the French and the German edition of the international medical journal *Contactologia* (Enke Stuttgart) and co-author, with G. Elie of *Guide de Contactologie Médicale* 1988. He has authored more than 150 publications mainly in French, but also in German and English, about ophthalmic clinical aspects in relation to contact lenses, to the history of contact lenses and to public health. Heitz attained his PhD (Paris, École Pratique des Hautes Études) after presenting a thesis on the *History of Corneal Neutralization and of Contact Lenses (Étude historique des principes et des applications des systèmes de contact oculaire dans le contexte des connaissances du XVI^e siècle à la première moitié du XX^e siècle)*. This thesis will be published in an English version (translated by Colin→Mailer) by Wayenborgh Ostend/Belgium, as part of the Hirschberg Series. For his activities to the Public Health, Robert Heitz received the French *Ordre National du Mérite*.JPW.

Helfgott, Maxwell A. (1947-) American ophthalmologist, Chairman, Department of Ophthalmology Washington Hospital Center; President, Washington National Eye Center. Dr. Helfgott received his MD from George Washington University School of Medicine in 1972. He served his internship at St. Vincent's Hospital in New York from 1972-73. He is a 1976 graduate of Washington Hospital Center's ophthalmology residency program, and served as Chief Resident during his senior year. He has been a member of the active attending staff since 1978, after serving for two years as a staff ophthalmologist with the rank of major at the Malcolm Grow United States Air Force Medical Center. He has been responsible for the surgical training and education of more than 90 residents. He initiated the monthly Morbidity Rounds while chief resident, and has conducted this activity ever since. He is a co-founder of the Washington National Eye Center, a member of the Medlantic Healthcare Group Board of Trustees, and co-founder and chairman of the Board of the Hospital Center's Physician Hospital Organization. In addition to publishing several articles and book chapters, Dr. Helfgott has won the ophthalmology Golden Apple

Award for excellence in teaching, and currently has four patents for ophthalmic surgical equipment. He received American Board of Ophthalmology certification in 1977, having distinguished himself as one of the few to receive a 99th percentile on the written Board exam. For more than 20 years, Dr. Helfgott has done all of his teaching and performed most of his surgery at Washington Hospital Center. As chairman, he continues his personal commitment to educational excellence by supervising and assisting on 40-50 resident surgical cases per year, attends in the general clinic, and conducts chairman's rounds monthly. He also maintains his private practice in downtown Washington, DC. (AB)

Helling, Georg Lebrecht Andreas (1763-1840) German ophthalmologist. Born at Gross-Salze, near Magdeburg, he received his medical degree in 1801 at Frankfort-on-the-Main. He settled in Berlin, where, after years of constant effort, he succeeded in securing a practice. In 1804 he delivered a course of private lectures on diseases of the eye. He invented a number of plastic operations on the eye, as well as several ophthalmic instruments. His ophthalmologic writings are as follows: 1. *Beobachtung eines Nachstaars.* (Jour. Chir., 1800.) 2. *De Fistula Lacrymalis.* (Dissertation, 1801.) 3. *Merkwürdige Erfahrung an einem am Grauen Staare Blindgeborenen.* (Hermstädt's Bulletin, Vol. II, 1803.) 4. *Beobachtung über die im letzten Kriege 1813 and 1814 bei den Preussischen Soldaten gleichsam Epidemisch gewordene Augenkrankheit.* (Berlin, 1815.) 5. *Heilung der Umkehrung der Augenlider nach innen mit Concentrirter Schwefelsäure.* (Hufelands Jour., 1815.) 6. *Über die Augenkrankheit der Preussischen Soldaten* (Berlin, 1816.) 7. *Krankheits-und Heilungs-Geschichte einer Ungewöhnlich Grossen Exophthalmia Fungosa.* (Rust's Mag., 1817.) 8. *Guter Rath über die Beschaffenheit, Auswahl der Brillen, etc.* (Berlin, 1819.) 9. *Ueber die Anwendung des Kadmii Sulfurici gegen Hornhautverdunkelungen.* (Rust's Mag., 1820,) 10. *Praktisches Handbuch der Augenkrankheiten nach Alphabetischer Ordnung.* (2 vols., 1821-1822 with 2 copper plates.) .American Encyclopedia of Ophthalmology, Vol.8, p.5743-5744. Albert. BMC.

Hellman, Johann Caspar (1736-1793) German ophthalmologist. Born at Halle, County Minden, in Westphalia, he seems to have studied, for a time at least, in Magdeburg. At all events, he became official physician to that city, and there died. He is said to have had an enormous practice, and to have been a remarkably skilful operator. He wrote but a single work, "*Der Graue Staar und dessen Herausnehmung, nebst Einigen Beobachtungen*" (Magdeburg, 1774). This was highly prized by numerous contemporaries. American Encyclopedia of Ophthalmology, Vol.8, p.5744



Hermann von Helmholtz in 1868

Helmholtz, Hermann Ludwig Ferdinand von (1821-1894) German physiologist, inventor of the ophthalmoscope, and, thereby, though not an ophthalmologist, the most important personage of all the ages in ophthalmology. He was born at Potsdam, Germany thirty years before the publication of the "*Augenspiegel*" and only twenty-nine years before the discovery of the instrument itself. As a youth he was strong in mathematics, stronger still in physics, and strongest of all, it is interesting to know, in optics, whose problems were never hard enough to suit him. In fact the lad had fully decided to become a physicist when his father (on account, as it seems, of the family poverty) declared for medicine instead. After a severe competitive examination, he entered the Royal Medico-Chirurgical Friedrich-Wilhelm Institute in October, 1838, being seventeen years old. To Surgeon-General von Wiebel his father wrote: "*I recommend this good boy, my dearest treasure, on whose education I have expended my best energies, to the fatherly care of one who is so valued for his goodness.*" At the Friedrich-Wilhelm Institute young Helmholtz received a medical education gratis, with the understanding that, after his graduation, he was to serve as surgeon in the Prussian Army. While at the Friedrich-Wilhelm Institute, Hermann Helmholtz formed a remarkable friendship with E.W.von→Brücke and du Emil →Du Bois-Reymond, each of whom was two years older than himself. Both these friendships were maintained until, many years after, they were broken by the hand of death. He also here became acquainted with Johannes Müller, Gustav Magnus, Kirchoff and R.Virchow. In 1842 Helmholtz received his degree, his dissertation being "*De Fabrica Systematis Nervosi Vertebratorum.*" Some four weeks earlier he had been appointed house-surgeon at the Charité. The following year he was military physician at Potsdam, and, in 1848, instructor in anatomy at the Academy of Art and the Anatomical Museum in Berlin. In 1849 he was made professor of physiology and general pathology at Königsberg (during his residence at which place he discovered the ophthalmoscope) and in 1855

professor of anatomy and physiology in Bonn. Three years later he was called to the chair of physiology at Heidelberg. In 1871 he moved to Berlin in order to accept the chair of physics and the directorship of the Physical Institute, as well as the title of "Geh. Regierungsrath." For the first few years of his residence in Berlin, he was assistant physician at the Charité and assistant surgeon in the Red Hussars Regiment at Potsdam. He never had a private medical practice, and he never practised ophthalmology as a speciality. In 1877, when the Physico-Technical Institute was founded by von Siemens at Berlin, Helmholtz was chosen as its first director. In 1883, because of his many astounding discoveries in physical science, he was ennobled. Eight years later, the 70th anniversary of his birth was made an occasion for international rejoicing. Honorary degrees were conferred upon him by many universities; a Helmholtz medal was founded in his honor; the German Kaiser sent to him an autograph letter of congratulation, and the Kings of Sweden and Italy, and other countries conferred upon him the insignia of numerous high orders. Von Helmholtz it was who secured the acceptance by the scientific world of the doctrine of the conservation of energy ("*Über die Erhaltung der Kraft*, " 1847) ; who discovered a way to measure the angle of aperture in a microscope; who *first* declared that electricity consists of atoms-a theory of most enormous consequences; whose "*Die Lehre von den Tonempfindungen* Braunschweig 1863 (*Sensations of Sound*)" and "*Physiologische Optik* Leipzig 1867 (*Physiological Optics*)" altered forever the subjects of optics and acoustics; who gave to Hertz the inspiration to find experimental proof of Maxwell's electric waves, a proceeding which led to the invention of wireless telegraphy; and, finally, who, by his own unaided invention of the ophthalmoscope, opened radical new ways to ophthalmology. In 1893 von Helmholtz, at the earnest request of Hermann →Knapp, of New York, attended the World's Fair at Chicago, and made a number of journeys to the western portions of the American continent. On his way back to Bremen, he met with a painful accident, from which, as it seems, he never recovered completely. A bibliography of Helmholtz's ophthalmologic writings is as follows: 1. *Beschreibung eines Augenspiegels zur Untersuchung der Netzhaut im lebenden Auge.* (Berlin, Förster, 1851.) 2. *Theory of Compound Colors.* (Poggendorff Annal., LXXXVI, 1852.) 3. *On Brewster's New Analysis of Solar Light.* (Berl. Monatsb., Poggend. Annal., LXXXIX; (Trans.) *Phil. Mag.* [4], IV, 1852.) 4. *On the Scientific Researches of Goethe.* (Lecture at Königsberg, 1853. Eng. Trans. Of *Pop. Sci. Lect.*, Series I, 1853.) 5. *On a Hitherto Unknown Alteration in the Human Eye During Accommodation.* (Berl. Monatsb., 1853.) 6. *On the Composition of Spectral Colors.* (Poggend. Annal., XCIV, 1855.) 7. *On the Sensibility of the Human Retina to the most Refrangible Rays of Solar Light.* (Ibid., XCIV, 1855.) 8. *On the Accommodation of the Eye.* (Graefe's Archiv, 1855.) 9. *Ueber das sehen des Menschen; ein populär wissenschaftlicher Vortrag* Leipzig 1855 (*On Human Vision.*). 10. *On the Explanation of Lustre.* (Nieder-Rh. Sitzungsber., 1856.) 11. *The Telestereoscope.* (Poggend. Annal., 1856.) 12. *Handbuch der Physiologischen Optik.* (Textbook of Physiological Optics.) Part I. (1856.) 13. *On the Subjective After-Images of the Eye.* (Nieder-Rh. Sitzungsber., 1858.) 14. *On After-Images.* (Karlsruhe, Naturf.-Versammlung, 1858.) 15. *On Color Blindness.* (Heidelberg Society, 1858.) 16. *On Contrast Phenomena in the Eye.* (Heidelberg Society, 1860.) 17. *Handbuch der Physiologischen Optik.* (Textbook of Physiological Optics.) Part II. (1860.) 18. *On the Horopter.* (von Graefe's Archiv, 1864.) 19. *Remarks on the Form of the Horopter.* (Poggend. Annal., 1864.) 20. *Handbuch der Physiologischen Optik* (Textbook of Physiological Optics.) Part III (final). (1867.) 21. *The Alore Recent Developments in the Theory of Vision.* (Preuss. Jahrb., XXI, 1868. Eng. Trans., *Pop. Sci. Lect.*, Series II.) 22. *The Relation of Optics to Painting.* (Eng. Trans., *Pop. Sc. Lect.*, Series II. 1868.) 23. *On the Signification of the Convergent Position of the Eyes for the Purpose of Determining the Distance of Objects seen Binocularly.* (Berlin *Physiol. Soc.*, 1878 24. *Handbuch der Physiologischen Optik* (Textbook of Physiological Optics.), (2nd Edition 1885-1895). 25. *On the Intrinsic Light of the Retina.* (*Physical Society*, 1888.) 26. *An Attempt to Extend the Application of Fechner's Law in the Color System.* (*Zeitsch. f. Psychol. u. Physiol. d. Sinnesorgane*, ii, 1891.) 27. *An attempt to Apply the Psycho-Physical Law to the Color Differences of Trichromatic Eyes.* (*Zeitsch. f. Psychol. u. Physiol. d. Sinnesorgane*, III, 1891.) 28. *Shortest Lines in the Color System.* (Berlin Academy, 1891.) 29. *Electromagnetic Theory of Color Dispersion.* (Wiedemann's Ann., XLVIII, 1892.) 30. *Additions and Corrections to the Essay: Electro-Magnetic Theory of*

Color Dispersion. (Ibid., XLVI.II, 1892.) American Encyclopedia of Ophthalmology, Vol.8, p.5744-5755. Albert.BMC

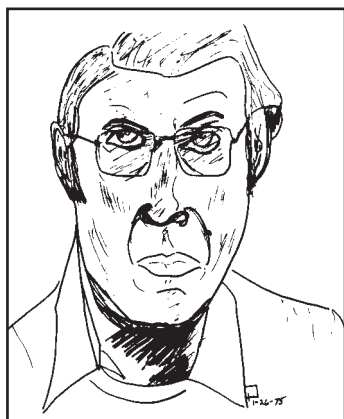
Helveston, Eugene McGillis (1934-) American Ophthalmologist, born in Detroit Michigan. Helveston received his B.A. in history at the University of Michigan (1956), his M.D. at the University of Michigan (1960), completed a residency in ophthalmology (interrupted by service in the U.S. Army Medical Corps) (1966), and served a fellowship in Pediatric ophthalmology and strabismus under Gunter K. von Noorden (1967). Helveston founded the Pediatric Ophthalmology and Strabismus Service at the Indiana University School of Medicine where he is Professor Emeritus. He wrote "*Surgical management of Strabismus*" 1973-1993 (four editions), and co-authored "*Pediatric Ophthalmology Practice*" (1980), and "*Strabismus a Decision Making Approach*" (1997). Helveston is a founding member and past president of the American Association for Pediatric Ophthalmology and Strabismus, past secretary-treasurer of the International Strabismological Association, and was presented a lifetime achievement award by the American Academy of Ophthalmology. His papers have been published widely in ophthalmic journals since 1967. Today Helveston works in Indianapolis, Indiana. His current professional activities include directing a volunteer telemedicine ophthalmic consulting program for under-served areas, and publishing a bimonthly lecture, "*The Strabismus Minute*" available on the internet. Address: Eugene M. Helveston, M.D., Indiana University School of Medicine, 702 Rotary Circle, Indianapolis, Indiana 46202, e-mail <ehelveston@msn.com>.

Henderson, Edward Erskine (1870-1929) British ophthalmologist. The eldest son of Edward Henderson, M.D., of Shanghai, he was born in China 18 February 1870, and was educated at Cheltenham College, where he gained a junior classical scholarship in 1882. Two years later he entered Harrow School, when Dr Butler was head master, and remained there until 1887. He then proceeded to St John's College, Cambridge, and graduated B.A. in 1891, after he had been placed in the second class of Part 1 of the Natural Sciences Tripos. Proceeding to Guy's Hospital he served as house surgeon to C. H. Golding Bird, and obstetric assistant to Peter Horrocks. He married Hester F. Sharpe on 12 January 1897 and returned to Shanghai, where he joined his father in practice and was once appointed assistant surgeon to the Hospital and to the Shanghai police force. He came back to England in the following year and studied ophthalmology at Moorfields under Sir John Tweedy and William Lang. For fifteen years Henderson worked as clinical assistant at Moorfields and became assistant surgeon in charge of out-patients and pathologist to the Royal Eye Hospital at St George's, Circus, Southwark. He was also ophthalmic surgeon to the West Ham Hospital. Henderson suffered throughout his life from incurable deafness, and it was probably for this reason that his father had him transferred from the low-lying Cheltenham College to the school at Harrow which is situated on a hill. He retired from practice and left London in 1920. For twenty years he held a unique position in the world of English ophthalmology. He was appointed editor of the Ophthalmic Review in 1910, and whilst it was under his direction an amalgamation was arranged with the Ophthalmoscope, in 1916 and with the Royal London Ophthalmic Hospital Reports in the following year to form the *British Journal of Ophthalmology* and of this journal he was senior editor from 1923. After his retirement from London, Henderson lived at Thackham, Hartley Wintney, Hants. Henderson did much good work in spite of his deafness and utilized his knowledge of the classics to the advantage of his colleagues in the profession. He earned following titles: M.R.C.S. 12 June 1902; F.R.C.S. 12 June 1902; M.B., B.Ch. Cambridge 1895. LFRCS. Brit. J. Ophthal. 1929,13:522

Henderson, John Woodworth (1916-) American ophthalmologist, Professor Emeritus University of Michigan. Henderson was born Iowa, USA. He earned his MSc (Anatomy) in 1941 and received his MD degree in 1942 from Northwestern University followed by a PhD (Neuro-ophthalmology) from the University of Michigan in 1948. His Internship was spent at the University of Michigan Hospital from 1942 to 1943, his residency in ophthalmology, also at University of Michigan, from 1943 to 1946. He became Instructor in 1948 and Associate Professor in 1952. Henderson was named Professor of ophthalmology in 1962. He became Professor Emeritus in 1980 at University of Michigan. Henderson authored: *The Mysteries of the Orbital Mass* Los Angeles 1958; *Orbital Tumors*, Philadelphia 1973 and *The University of Michigan Department of*

Ophthalmology. A Proud Heritage Ann Arbor 1986. He was Chairman, Department of Ophthalmology, University of Michigan from 1968-78. Henderson created, with the Lions Club, the *Michigan Eye Bank*. He joined the American Ophthalmological Society in 1955, presenting a thesis on *intracranial arterial aneurysms*. Henderson was President of the Ophthalmological Society in 1980. He joined the American Academy of Ophthalmology, in 1947, and was its 1st vice-president in 1970 and council, 1971. He was in 1976, President of the Association of University Professors of Ophthalmology and also President, in 1963 of the American Orthoptic Council; President, in 1968, of the Michigan Ophthalmologic Society; he was on the Editorial boards of: *Archives of Ophthalmology* and *American Journal of Medical Sciences*. Special interests focused in corneal transplantation and neuro-ophthalmology. JPW

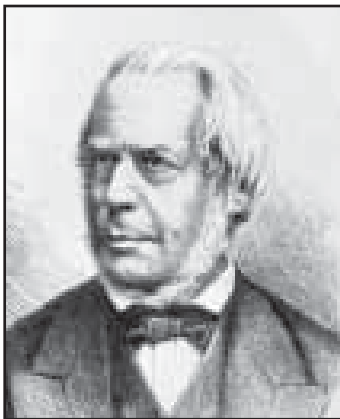
Henderson, Thomson (1877-1960) British ophthalmologist, formerly senior surgeon of the Nottingham and Midland Eye Hospital. Thomson Henderson was born at Leghorn, and went to George Watson's College, Edinburgh, and thereafter to Edinburgh University, where he graduated M.B. Ch.B., at the age of 21. For some time he was demonstrator of anatomy in the Royal College of Surgeons of Edinburgh and after qualification he became ophthalmic house surgeon in the Edinburgh Royal Infirmary. He set up practice in Nottingham in 1904 and for nearly half a century lived and practised at the Ropewalk. In 1909 he was appointed honorary surgeon to the Nottingham and Midland Eye Infirmary. In 1910 he was awarded the gold medal offered by the XI International Congress of Ophthalmology in Naples for the best paper on the treatment of hardening of the eye. In 1926 he gained the Doyne Memorial Medal at the Oxford Ophthalmological Congress, and for several years his main research work was directed towards discovering the cause of glaucoma and its treatment. In 1950 he published his *Principles of Ophthalmology*. Henderson was president of the Nottingham Medico-Chirurgical Society in 1922-23 and of the Midland Branch of the B.M.A. in 1935-36. BJO 1960,44:512



Paul Henkind (self portrait)

Henkind, Paul (1932-1986) American ophthalmologist. Paul Henkind was born in New York, New York. Except for a brief interval for internship at the Henry Ford Hospital in Detroit and two years at the Institute of Ophthalmology in London, he spent his life in the city of his birth. He began his scholastic career in the grade schools of New York and from his education at the Bronx High School of Science, that mother of Nobel Prize winners, we can deduce that even at an early age he showed outstanding promise and not only solely as a future scientist. He continued his scholar career at Columbia University. In 1955, after graduation from Columbia, he matriculated at the Medical School of New York University and here a new talent emerged. He became photographic editor of the Medical School magazine, "*Violet*." While in medical school, he received a National Council to Combat Blindness Student Fellowship and also *I Fight for Sight* Fellowship. After internship Henkind returned to New York in 1960 to start a residency in ophthalmology at New York University. On completion of his residency he received a fellowship from the National Institutes of Health that allowed him to spend the next two years at the Institute of Ophthalmology of the University of London where he earned a Ph.D. in pathology. (Twenty years later the same institution awarded him a Doctor of Science degree.) In 1965 Henkind returned to New York to a teaching and research career at New York University. In 1970 he was recruited by the Albert Einstein College of Medicine of Yeshiva University and became the Frances Dejur Professor and Chairman of the Department of Ophthalmology. By that time he had already published some 70 papers, but by the next 10 years he published some 200 papers, book chapters, and textbooks. he served on numerous advisory boards and he was invited to give named lectures all over the world: the G. Victor Simpson Lecture in Washington, D.C., the University of Chicago Alex Krill Lecture, the Royal College of Surgeons of Canada Lecture, the Paul Chandler Lecture at Harvard University, the Alan Firmin Lecture in England, the Abraham Ticho Lecture in Israel, and many others. He served on the editorial boards of most of the prestigious ophthalmic journals; *Ophthalmic Literature*, *Investigative Ophthalmology*, *Survey of Ophthalmology*, the *American Journal of Ophthalmology*, and the *Archives of Ophthalmology*. His greatest contribution, however, was undoubtedly as editor of *Ophthalmology*, the journal of the American Academy of Ophthalmology. This publication prior to Henkind's editorship was the *Transactions of the American Academy of Ophthalmology and Otolaryngology*. It was devoted primarily to reporting the activities of the various committees of the Academy and the publishing of

papers given at the annual meeting. After the division of the original Academy into two separate academies, the Transactions continued as a transcript of the annual meeting. Paul Henkind changed all that. He transferred the publication to Lippincott, changed its format and size, changed its name to *Ophthalmology*, added numerous black-and-white and color illustrations, and converted what was essentially a meeting transactions into a world-class publication. Paul insisted on the privilege of rejecting papers that were read at the annual meeting if he did not believe them suitable for publication. He demanded the right to publish significant outside material that had not been given at the annual meeting. Further, he wrote vigorous, often biting editorials that commented not only on articles in a particular issue of the magazine but also on what he perceived to be the ethical shortcomings of some of the members of our specialty. By a combination of judicious editorial judgment and perceptive editorials, Paul made *Ophthalmology* into a journal of record of general ophthalmology for the entire English speaking ophthalmologic community. This, however, was only one side of Paul Henkind. He had many interests other than ophthalmology. He used to make rapid sketches at meetings; he was adept at catching the essence of a face by emphasizing a single feature. He usually gave these drawings to the models at the end of the meeting and many ophthalmologists treasured these sketches, usually slightly derisory, but never mean. A series of such drawings were used to illustrate K.Shimizu's book: *Ganka no Hon no Hon* (A book on books on ophthalmology) Japan 1982.AJO 1986,102:413-414. JPW



Hermann von Helmholtz in 1868

Henle, Friedrich Gustav (1809-1885) German anatomist, physiologist and, pathologist, who devoted considerable attention to the anatomy and physiology of the eye. Born at Fürth he received his medical degree at Bonn Apr. 4, 1832, presenting as dissertation "*De Membrana Pupillare. Aliisque Oculi Membranis Pellucidibus.*" After further study at Paris and Berlin, he became docent in the latter university from 1838 till 1840. In the last-named year he was called to Zürich as Professor of Anatomy and Physiology. From 1852 until his death he was Professor of Anatomy and Director of the Anatomical Institute at Göttingen. Henle's chief ophthalmologic writings were: 1. *Bemerkungen zur Anatomie der Retina.* (Müller's Archiv, 1839.) 2. *Zur Anatomie der Thränenwege und zur Physiologie der Thränenbildung.* (Zeitschr. f. rat. Med., 1865.) 3. *Zur Anatomie der Krystalllinse.* (Göttinger Nachrichten, 1878.) 4. *Zur Entwicklung der Krystalllinse und zur Theilung des Zellkerns.* (Archiv für mikrosk. Anatomie, Bd. XX, 1883.) American Encyclopedia of Ophthalmology, Vol.8, p.5808. Albert.BMC

Henning, Friedrich (1767-1840) Swedish physician, who devoted considerable attention to ophthalmology. Born in 1767 at Woten, he received the medical degree in 1788 at Greifswald. In 1799 he settled at Barth, in Swedish Pomerania, and was made assessor at the Royal Swedish Sanitary College. Henning's only ophthalmologic writing is "*Commentatio MedicoChirurgica de Ptoſi*" Leipzig, 1788. American Encyclopedia of Ophthalmology, Vol.8, p.5809

Henry the Minstrel (1361-?) He was also called "*Blind Harry*" and "*The Northern Homer.*" His surname is not known. He was born blind about A. D. 1361, but became a very learned man, traveled about the country as a beggar, reciting his own poems, and was very well known all over Scotland. His most important composition is "*The Battle of Beggan*" The place, date, and cause of his death, are alike unknown. American Encyclopedia of Ophthalmology, Vol.8, p.5809

Henry, Thomas (1734-1816) A British apothecary and physician, who devoted considerable attention to ophthalmology. Born at Wrexham, North Wales, he practised at Kentsford, in Cheshire, later at Manchester. He was a Fellow of the Royal Society and of the Medical Society in London. Henry's only ophthalmologic writing is "*Case of a Person Becoming Short-Sighted in Advanced Age*" (Mem. Manchest. Soc., V, 1790). American Encyclopedia of Ophthalmology, Vol.8, p.5809

Hensen, Victor (1835-1924) German physiologist, born in Schleswig, Germany, who received his M.D. in 1859 at Kiel (his doctoral thesis being: *De Urinae excretionem in epilepsia*), where he became professor and director of the physiological institute. Hensen's research focused on embryology, the microscopic anatomy of the sense organs, and the anatomy of microscopic marine animals. He wrote two books about hearing and with Carl Voelckers: *Experimentaluntersuchung ueber den Mechanismus der Accommodation.* Kiel 1868. Albert.BMC

Hentschel Klaus (?) German scientist, assistant professor for the History of Sciences. Currently assistant professor (Oberassistent) at the Institut für Wissenschaftsgeschichte, University of Göttingen CV: 1995: Habilitation in History of Science at the Institut für Geschichte der Naturwissenschaften, Mathematik und Technik, University Hamburg, 1991-95: Position (wissenschaftlicher Assistent) at the newly founded Göttingen Institute for History of Science, 1990/91: Researcher in an interdisciplinary DFG project on epistemic systems headed by Gerd Grasshoff, 1989/90: Fellow at the Verbund für Wissenschaftsgeschichte, Berlin, 1989: Ph.D. thesis (Promotion) in History of Science at the Institut für Geschichte der Naturwissenschaften, Hamburg, 1987: Master's thesis (Diplom) in high energy physics at the 2nd Institute for Theoretical Physics, Univ. Hamburg, 1985: Magister in philosophy at the University of Hamburg with a double-major in physics and philosophy. Main Research Interests: Mapping the Spectrum: Techniques of Representation in Research and Education (book project) Interplay of Instrumentation, Experiment and Theory (with case studies on redshift in the solar spectrum, 1880-1960): Habilitation Thesis 1995 and various papers, *Physics and National Socialism: An Anthology of Primary Texts*, 1996, *Philosophical Interpretations of Relativity Theory: Dissertation 1989*, History of Philosophy of Science, esp. Berlin and Vienna Circle as well as Ernst→Mach and Pierre Duhem Klaus Hentschel received following prizes and awards: 1999: Leopoldina-Prize for History of Science, issued by the German Academy of Scientists Leopoldina, Halle, 1998: Prix international d'histoire des sciences Marc-Auguste-Pictet, issued by the Societe de Physique et d'Histoire Naturelle de Geneve, 1997: Grant by the American Institute of Physics for research at the Niels Bohr Library and Archive; 1996/97: Fellowship at the Dibner Institute for History of Science and Technology, Cambridge, Mass. 1993: Paul-Bunge-Prize of the Hans R. Jenemann Stiftung, issued by the Deutschen Bunsen-Gesellschaft and the Gesellschaft Deutscher Chemiker; 1992: Heinz-Maier-Leibnitz Prize of the German Federal Ministry for Education and Science (Bundesminister für Bildung und Wissenschaft); 1990: Kurt-Hartwig-Siemers Prize of the Hamburger Wissenschaftliche Stiftung; 1987: Grant from the Deutscher Akademischer Austauschdienst (DAAD) to do research on the Collected Papers of Albert Einstein. Klaus Hentschel is a member of the History of Science Society, Philosophy of Science Association, Deutsche Physikalische Gesellschaft (Fachverband History of Physics) Deutsche Gesellschaft für Geschichte der Medizin, Naturwissenschaften und Technik (Arbeitskreis History of Astronomy), Deutscher Hochschulverband. Published Books and Editions: 1) (with John T. Blackmore): *Ernst Mach als Aussenseiter. Machs Briefwechsel über Philosophie und Relativitätstheorie mit Persönlichkeiten seiner Zeit. Auszug aus dem letzten Notizbuch (Faksimile) von Ernst Mach*, Vienna: Braumüller, 1985 (214 pp., 37 figs.). 2) *Interpretationen und Fehlinterpretationen der speziellen und der allgemeinen Relativitätstheorie durch Zeitgenossen Albert Einsteins*, Basel: Birkhäuser, 1990 (Science Networks Series, Vol. 6; 700 pp., 18 figs., 3200 bibl. refs.). 3) *Die Korrespondenz Petzoldt — Reichenbach: Zur Entwicklung der wissenschaftlichen Philosophie in Berlin*, Berlin: Sigma, 1990 (= Berliner Beiträge zur Geschichte der Naturwissenschaften und der Technik, vol. 12; 91 pp.). 4) *Der Einstein-Turm, E.F. Freundlich und die Relativitätstheorie: Ansätze zu einer "dichten Beschreibung" von institutionellen, biographischen und theoriengeschichtlichen Aspekten*, Berlin, Heidelberg and New York: Spektrum Akademischer Verlag, 1992 (see also no. 8 for English translation). 5) *Physics and National Socialism. An Anthology of Primary Sources*, Basel: Birkhäuser, 1996 (= Science Networks Series, Vol. 18; ci, 406 and CIV pp., 121 docs., 31 figs., 969 refs.). 6) (with Matthias Doerries): Edition of Heinrich Kayser: *Erinnerungen aus meinem Leben* [1936], Munich: Deutsches Museum, 1996 (= *Algorismus Series*, Vol. 18; 46+313+102 pp.). 7) *Zum Zusammenspiel von Instrument, Experiment und Theorie: Rotverschiebung im Sonnenspektrum und verwandte spektrale Verschiebungseffekte von 1880 bis 1960*, (Habilitation thesis, 1995,) Hamburg: Verlag Dr. Kovac, 1998 (28+755+248 pp.). 8) *The Einstein Tower: An Intertexture of Architecture, Astronomy, and Relativity Theory*, Stanford: Stanford Univ. Press, 1997 (= expanded Engl. translation of No. 4 by Ann M. Hentschel; 226 pp.). 9) (with Renate Tobies): editor of *Briefstagebuch zwischen Max Planck, Carl Runge, Bernhard Karsten und Adolf Leopold*, Berlin: ERS-Verlag (273pp., 5 pl.). 10) *Mapping the Spectrum. Techniques of Representation in Research and Teaching* (in preparation). Mail: Institut für Wissenschaftsgeschichte, Univ. Göttingen, Humboldtallee 11, D-37073 Göttingen,

Germany. Telefon: ++49-551-39-8412; Fax: ++49-551-39-9748.

E-Mail: khentsc@gwdg.de (JPW)



James Curtis Hepburn

Hepburn, James Curtis (1815-1911) American Ophthalmologist and missionary of the Presbyterian Church. He graduated from Pennsylvania University in 1836, and worked as a Presbyterian Mission for 5 years in South Asia. He practiced Ophthalmology in the United States for 13 years, 1846-1859, and became a famous Eye Surgeon. In 1859 he came to Yokohama as a Presbyterian Missioner, but the Christian Church was not officially permitted at that time. He then started practice in Yokohama on a charitable basis; many patients visited him and he had to spend busy days seeing patients and also teaching eye surgery to Japanese students. Many Japanese studied Ophthalmology under him and they made great services for the public in the early times of Meiji Era. His student, G. KISHIDA assisted Dr. Hepburn to translate Japanese and learned the production of Zinc Sulphate eye drops. This eye drop became very popular as the first modern eye drops in Japan. Hepburn closed his Clinics in 1876 and invented the expression of the Japanese Language in Roman Letters, edited a Japanese-English *Dictionary* and translated the *Bible* into Japanese. He founded the Meiji Gakuin (a college of literature) in 1887: the College is the present Meiji Gakuin University in Tokyo. He left Japan in 1892. He had conferred on him the National Order of Merit by the Emperor Meiji in 1905 for his contribution to the cultural evolution of modern Japan. (SM)

Hepburn, Malcolm Langton (1866-1942) British ophthalmologist. Hepburn was educated at Uppingham and entered St.Bartholomew's Hospital in 1885, where he gained the Foster Prize in anatomy and qualified in 1892, taking the Conjoint Diploma and the M.B., B.S. degree in the University of London. He then served for a year as house-surgeon to his uncle Mr.Langton and added the F.R.C.S.(Eng.) and the M.D.(London) to his qualifications. In 1895 he began general practice in Lowestoft where he later was appointed Assistant Surgeon and afterwards Surgeon to the Hospital. Returning to London in 1904 he took up the special study of Ophthalmology and joined Moorfields as a student, where he worked under Sir Arnold→Lawson and the late Mr. Holmes Spicer, eventually becoming Chief Clinical Assistant to Sir John Parsons. During the same period he attended St. Bartholomew's Hospital and was appointed Chief Assistant in the Ophthalmic Department. His first Staff Appointment was that of Assistant Surgeon to the Central London Ophthalmic Hospital, and soon afterwards he became Assistant Ophthalmic Surgeon to the Hampstead General Hospital. These appointments were followed by his election to the Staff of Moorfields in 1910, and in 1913 he was appointed Ophthalmic Surgeon and Lecturer to the Royal Free Hospital. At Moorfields he served as Sub-Dean of the Post-Graduate School from 1913 to 1920 and after that date as Dean, until his retirement from the active Staff in 1926. In addition to his other activities he examined for the D.O.M.S. Diploma, and occupied the Presidential Chair for two years at the Section of Ophthalmology of the Royal Society of Medicine. He also delivered the Doyne Memorial Lecture at the Oxford Congress in 1935. He wrote: *The Ophthalmology of General Practice*, London 1922 and a chapter on Conjunctiva, on Cornea and on Refraction in *Dictionary of Practical Medicine*, 1921. At the time of his death, Hepburn was a member of the Consulting Staff of Moorfields and of the Royal Free Hospital and was also Hon. Secretary to the Council of British Ophthalmologists, a post which he had filled for a number of years.BJO 26,332-334,1942; LFRCS 1930-1951:382-383

Herbert, Herbert Lieut.-Colonel I.M.S. (1865-1942) British ophthalmologist. As an ophthalmic surgeon Herbert achieved very much more than a purely British reputation. His work at Bombay, both in the clinical and pathological field, was of outstanding value and was conducted in a truly scientific spirit. His description of the "pits," since known as *Herbert's pits* in the cornea of trachomatous patients was the *first* of its kind. In this, as in much else he was a pioneer; and it should be emphasized that he did all the microscopical work on his cases in his spare time. The other subject on which Herbert was brought into prominence was glaucoma. In varying parts of the world surgeons were engaged on devising some operation for types of glaucoma, which it was agreed, did not always do well on the classical iridectomy of von→Graefe. Thus →Lagrange, in France, Freeland Fergus, in Glasgow, Holth, in Scandinavia, Herbert, in Bombay and Elliot, in Madras were all at work on this subject in the early years of the 20th century. It was a great pity that Herbert's description of his first, or wedge-shaped, sclerotomy was so involved as to be

difficult to understand from the verbal account ; and he never found much support in England. But his later, or trap-door, sclerotomy has been extensively used and has a permanent place in operative procedures in selected cases. Besides his work on glaucoma he wrote a good deal on cataract. Herbert joined the Ophthalmological Society in 1897 and served a term as vice-president. He qualified from Leeds in 1886 and took the F.R.C.S. (Eng.) in 1891. At Bombay he was ophthalmic surgeon to the Sir C.J. Ophthalmic Hospital from 1895 to 1907. He was also a Fellow of Bombay University. On retirement Herbert settled at Nottingham and was surgeon, and later consulting surgeon, to the Nottingham and Midland Eye Infirmary. Later on he moved to Worthing where he was ophthalmic surgeon to the Worthing Hospital and Pathologist to the Sussex Eye Hospital. He contributed many papers to the Transactions of the Ophthalmological Society, to the Ophthalmic Review and to the British Journal of Ophthalmology. BJO 26,238-239; Arch Ophthalmol 1942,28:339; Brit med J.1942,1:627; LFRCS 1930-1951:384-385

Hering, Ewald (1834-1918) German physiologist who made researches on sensory physiology. Hering was born in Alt-Gersdorf, Germany, and received his M.D. in 1860 at Leipzig. He lectured in physiology at Leipzig from 1862 to 1865 and later became professor of physiology at the military Medico-Surgical Academy of Vienna (1865-1870), the University of Prague (1870-1895), and the University of Leipzig (1895-1918). Among his studies was color and binocular vision. He wrote: *Beiträge zur Physiologie*. (5 parts) Leipzig 1861-64, *Die Lehre vom binocularen Sehen*. Leipzig 1868, *Zur Lehre vom Lichtsinne* Wien 1878. *Kritik einer Abhandlung von "Donders: Über Farbensysteme."* Prag 1882, *Raumsinn des Auges* (vol.3 in Hermann *Handbuch der Physiologie*) 1879, translated by Carl A. Radde: *Spatial Sense and Movements of the Eye*, Baltimore 1942. Albert. BMC.JPW

Hermann, Ludimar (1838-1914) German physiologist, born in Berlin, who received his M.D. there in 1859 and became professor of physiology at the Universities of Zürich (1868-1884) and Königsberg (1884-1914). Hermann's research chiefly concerned the electrophysiology and metabolism of muscle and nerve; the author of numerous textbooks and journal articles, he was also active as an editor of a medical journal: *Centralblatt für die medicinische Wissenschaften* 1863. About vision he wrote: *Über schiefen Durchgang von Strahlenbündeln durch Linsen und über eine darauf bezügliche Eigenschaft der Krystalllinse*. Zürich 1874. He edited the *Handbuch der Physiologie* in which the third volume is devoted to the physiology of senses (written by Ewald →Hering: *Handbuch der Physiologie*. Band 3: *Raumsinn des Auges* Leipzig 1879. Albert. BMC

Hermans, Georges (1939-) Belgian ophthalmologist. Hermans was born in Uccle (a suburb of Brussels). He is the son of René →Hermans, also an ophthalmologist. He obtained the M.D. degree in Brussels in 1963 and specialized in ophthalmology under Pierre →Danis at the same University until 1973. During the same time he did research work in pharmacodynamics and obtained in 1972 a special degree in insurance medicine with a thesis on *traumatic unilateral cataract and aphakia*. He teaches industrial ophthalmology at the School of public health since 1971 and became full professor in 1978. His papers concern mainly neuro-ophthalmology (from 1964), squint (from 1966), ocular allergy on cosmetics (1973), nystagmography in dyslexia (1975) and visual aspects of VDU work (from 1978). He made for the Belgian Ophthalmological Society reports on ophthalmological side-effects of general medications (1972), visual aptitudes (1975) and visual aspects of work at VDUs (1985). (Verriest).

Hermans, René (1905-1982) Belgian ophthalmologist. Hermans obtained the M.D. degree in Brussels in 1931. He specialized in ophthalmology in Paris (under →Morax and →Poulard) and in Bordeaux (under Teulières). He has been general secretary of the Professional association of the Belgian ophthalmologists from 1945 to 1953, and chairman of the Commission on Physiological optics of the Belgian National Committee on Illumination from 1960 to 1978. He published on clinical ophthalmology, *prescription of glasses, illumination problems, visual performance* (with Jules →Zanen in 1963) and *history of ophthalmology* (a.o. an excellent booklet on *military ophthalmia*, 1960). (Verriest)

Herophilus (c.300 B.C.) Greek anatomist, the first to perform a dissection of the human cadaver, and the first to dissect the living human subject (condemned criminals), whose



René Hermans

name has been perpetuated in the "torcular Herophili." He wrote a large number of works, chiefly on anatomical subjects, but of these only fragments survive in the writings of Celsus, Galen, Rufus, and Theophilus. Of chief importance to ophthalmologists was his "*Peri Ophthalmion*." He described distinctly the sclera, the choroid, the retina, and the vitreous humor. American Encyclopedia of Ophthalmology, Vol.8,p.5880-5881

Herschel, Caroline Lucretia (1750-1848) British lady astronomer, sister of Sir Frederick William →Herschel. She lived in Hanover, Germany, until 1772, when she went to England to live with her brother at Bath. When William turned astronomer she became his constant helper, and on his being appointed private astronomer to King George the Third she acted as his assistant. While discharging her duties in this position she discovered several comets and several remarkable nebular and clusters of stars included in William's catalogues were described from her original observations. In 1798 she published at the expense of the Royal Society, *A Catalogue of Stars taken from Mr. Flamsteed's Observations*, which contained five hundred and sixty-one stars omitted in the British catalogue. In 1828 the Astronomical Society conferred on her their gold medal. American Encyclopedia of Ophthalmology, Vol.8,p.5902-5903.

Herschel, John (Sir John) Frederick William (1792-1871) British astronomer, the only son of Sir William Herschel, was born in Slough, England, and educated at Eton and St. John's, Cambridge, where, in 1813, he was senior wrangler and first Smith's prize-man. His first publication was "*A Collection of Examples of the Application of the Calculus of Finite Differences*" (1820). In 1822 he applied himself especially to astronomy and for a time he worked with Sir James South in re-examining the nebular and clusters of stars described in his father's catalogues. The results of the examination were given in 1833 to the Royal Society in the form of a catalogue of stars in order of their right ascension. His treatises on Sound and on the Theory of Light appeared in the *Encyclopedia Metropolitana* (1830-31); his treatise on Astronomy (1831) and the "*Preliminary Discourse on the Study of Natural Philosophy*" in Lardner's *Cyclopedia* not to mention his papers in the *Transactions of the Astronomical Society*. In January, 1834, Herschel arrived at the Cape of Good Hope, with the intention of completing the survey of the sidereal heavens, by examining the southern hemisphere as he had done the northern. Here he established his observatory at Feldhausen, six miles from Table Bay; in four years working all the time at his own expense he completed his observations; in 1847 he published a volume of *Astronomical Observations made at the Cape; being the Completion of a Telescopic Survey of the Whole Surface of the Visible Heavens commenced in 1825*. On his return to England honors were showered on him: he was made D. C. L. of Oxford and on Queen Victoria's coronation a baronet. He was president of the Astronomical Society and in 1849 became master of the Mint. His articles on Meteorology, Physical Geography and the Telescope, contributed to the *Encyclopedia Britannica*, were published separately; and his *Popular Lectures on Scientific Subjects* (new Ed. 1880) and *Collected Addresses* are well known works. Herschel was also a distinguished chemist, and attained important results in photography independent of Fox →Talbot. His researches on the undulatory theory of light were very valuable. He had also a profound interest in poetry and made translations from Schiller and from the Iliad. He was buried in Westminster Abbey near Sir Isaac →Newton. See Agnes M. Clerke, *The Herschel and Modern Astronomy* (1896). American Encyclopedia of Ophthalmology, Vol.8, p.5903



Sir William Herschel

Herschel, William (Sir William) (1738-1822) British astronomer, born at Hanover, the son of a band-master and educated as a professional musician. In 1757 he established himself in England, becoming a teacher of music in the town of Leeds, whence he went to Halifax as organist, and subsequently (1766) in the same capacity to Bath. Here he would seem to have first turned his attention to astronomy. Wanting a superior telescope and unable to afford to buy a good reflector he made one for himself a Newtonian of five foot focal length and with this applied himself to study the heavens. In 1781 he made his first discovery, a new planet, which he at first took for a comet. The result of his discovery was his appointment to be private astronomer to George III. He then went to live at Slough near Windsor, where, assisted by his sister Caroline, he continued his researches. Herschel married a Mrs. Mary Pitt and left one son. He was knighted by George III. He greatly added to our knowledge of the solar system; he discovered Uranus (called by him Georgium Sidus) and what he took for its six satellites and two satellites of Saturn.

Besides this he detected the rotation of Saturn's ring, the period of rotation of Saturn itself and that of Venus the existence of the motions of binary stars, the first revelation of systems beside our own. His catalogue of double stars, nebulae, etc., and tables of the comparative brightness of stars and his researches in regard to light and heat would have in themselves entitled him to the first rank as an astronomer and natural philosopher. He erected a famous monster telescope of forty feet in length. It was begun in 1785 and finished in 1789, in which year he by means of it detected the sixth satellite of Saturn. See *Herschel's Life and Works* by E. S. Holden (1881) and *William Herschel and his Work*, by J. Sime (1900). American Encyclopedia of Ophthalmology, Vol.8,p.5906

Hersing, Friederich Wilhelm (? -?) German physician who wrote: *Compendium der Augenheilkunde* Erlangen 1873., 3rd.edition Stuttgart 1881. An Italian edition *Compendio di oftalmiatria* was published in Napoli 1888. Albert.BMC

Hertz, Heinrich Rudolf (1857-1894) German scientist, born in Hamburg, and who studied at Berlin. In 1880 he became assistant to Hermann von→Helmholtz, in 1885 was called to the technical school at Karlsruhe and in 1889 succeeded Clausius as Professor in Bonn. He greatly advanced the science of electricity, was the continuator of the work of Faraday and Clerk-Maxwell and was a singularly ingenious experimenter. He demonstrated the existence of electromagnetic waves of comparatively slow frequency. "Hertzian" waves are propagated through space, and can be reflected, refracted and polarized like light. Wireless telegraphy is the practical development of his discoveries. Three volumes of his collected works appeared in 1894 and have been translated into English by D. E. Jones (1893-99). American Encyclopedia of Ophthalmology, Vol.8,p.5906-5907.

Hess, Carl von (1863-1923) German ophthalmologist, director of the Munich Eye Klinik. He was the only son of Wilhelm Hess, the well-known ophthalmologist, a close friend of Albrecht v. Graefe, and for many years secretary of the Heidelberg Ophthalmological Society. Great pains were taken with the early education of Carl, and especial attention was paid to the acquisition of foreign languages, in which he became remarkably proficient. Carl v. Hess acted as assistant to Hering, the physiologist, and to →Sattler, the ophthalmologist, both of Prague, and as might be expected from this conjunction, v. Hess became the happiest combination of physiologist and ophthalmologist that it is possible to imagine. He studied also in Heidelberg, Bonn, and Strasburg. For a short time he assisted in the Schoeler Klinik in Berlin.. In 1891 he was first assistant and Privatdozent in the University Eye Klinik, of Leipzig. In 1896 he was appointed extraordinary professor as successor to →Uhthoff and nominated ordinary professor and director of the University Eye Klinik in Marburg. Shortly after this he was awarded for his work upon accommodation the von Welz-Graefe Prize by The Heidelberg Congress. As, successor to J. von→Michel, in 1900 he was called to Würzburg, where he lived for twelve years and where he reached the summit of his career. During this period he wrote his two famous textbooks, namely, "*Anomalies of Refraction and Accommodation*" and "*The Pathology and Therapy of the Lens System,*" and published most of his investigations on the light and colour sense, as well as treatises dealing with comparative accommodation. It is of interest to recall the fact that in pursuit of his favorite studies he passed nearly every spring at the Zoological Station at Naples. In 1912 he was called to Munich as successor to →Eversbuch. In 1922 the German Ophthalmological Society presented v. Hess with the Graefe Medal, the highest distinction within its gift, and this gave Hess the greatest pleasure, since only men of, the calibre of Leber, Helmholtz and Hering had been its recipients. BJO 1923,7:541-542

Hess, Wilhelm (1831-1905) German ophthalmologist. Born at Giessen, he was a student at Giessen, Würzburg, Heidelberg, Vienna, and Prague. In 1853 he began to study ophthalmology under Albrecht von →Graefe, whose close personal friendship he enjoyed. In 1857 he settled for practice in Mainz. He possessed remarkable executive, as well as operative, ability. He was one of the founders of the (Heidelberg) *Ophthalmologische Gesellschaft* and was for a long time its permanent secretary. American Encyclopedia of Ophthalmology, Vol.8,p.5907

Hesselbach, Adam Kaspar (1788-1856) German surgeon and anatomist who wrote: *De tunica retina et zonula ciliari* Würzburg 1820 ; *Die Erkenntniss und Behandlung der*

Eingeweide-Brüche durch naturgetreue Abbildungen erläutert Nürnberg 1840; *Handbuch der gesamten Chirurgie für praktische Ärzte und Wundärzte* (3 parts) Jena 1844-1846. Albert.BMC

Heuermann, Georg (1723*-1768) Danish Copenhagen surgeon, who devoted much attention to ophthalmology. Born at Oldesloe, Holstein, he studied for a time at the Copenhagen University, and, in 1749, received from that institution his medical degree. In 1750 he became prosector at the University, and eight years later "physician and chief surgeon to the mobilized army." He was appointed professor of surgery at the Copenhagen University in 1763, but did not begin to lecture till three years later. In 1768 he died. His medical writings are as follows: 1. *De Lingua Humana*. (Diss., 1749.) 2. *Physiologie*. (In four parts; Copenhagen and Leipzig, 1751-55. According to Hirschberg, more than 200 pages of this work are devoted to the eye.) 3. *Abhandlung der Vornehmsten Chirurgischen Operationen am Menschlichen Körper*. (3 parts; Copenhagen, 1754-57. Especially rich in the surgery of the eye.) 4. *Vermischte Bemerkungen und Untersuchungen der Ausüben,den Arzneiwissenschaft*. (2 parts; Copenhagen; 1765, 67.)*According to Hirschberg, but the "Biographisches Lexikon der Aerzte" says born in 1722. American Encyclopedia of Ophthalmology, Vol.8,p.5913-5914.Hirsch.

Heurne, Johan (Jan) van (1543-1601) Dutch physician, advocate of bedside teaching, was born in Utrecht and studied medicine at Louvain, Paris, and Padua; he practiced in Utrecht for ten years before becoming professor of medicine at Leiden (1581-1601). Van Heurne wrote: *De morbis oculorum, aurium, nasi, dentium et oris* Leiden 1602.Albert. BMC.

Heusinger, Johann Christian Friedrich Karl (1792-1883) German natural historian and physician, who devoted some attention to ophthalmology. Born at Farnroda, he received his medical degree at Jena in 1812, and, after a year of further study at Göttingen, became a military physician in active service in the Prussian army. Returning to civil life, he became an assistant to von →Himly at Göttingen, then professor at Jena, then at Würzburg, and, finally at Marburg, where he spent the remainder of his days. In 1876 he was ennobled. Heusinger's chief ophthalmologic writing is "*Untersuchung der Augen eines Amaurotischen*" (*Rust's Mag. f. d. Ges. Heilk.*, Bd. I).American Encyclopedia of Ophthalmology,Vol.8, p.5916

Hewkley, Frank (1861-1942) British ophthalmologist. Hewkley was educated at the City of London School and was a student of the London Hospital. He qualified in 1881 proceeding six years later to the fellowship. He was also M.B. Durham. An old Moorfields student he was later Ophthalmic Surgeon to the Westminster General Dispensary and to the St.Pancras Infirmary, to which in due course he became consulting ophthalmic surgeon. He joined the OSUK in 1905. BJO 1944; 28:103.

Hewson, Thomas (1783-1831) British physician, son of the famous London anatomist William Hewson and father of the American surgeon Addinell H. Hewson. He wrote: *Observations on the history and treatment of the ophthalmia accompanying the secondary forms of lues venerea*. London 1824 and *Practical observations on the history, nature, and treatment of the venereal disease of the eye*. London 1836.Albert.Hirsch.

Hey, William (1736-1819) English surgeon of Leeds, England, who devoted some attention to ophthalmology, especially to comparative ophthalmology. Born at Leeds, the grandson of a well-known surgeon, he lost the sight of his right eye in early childhood as the result of a wound made by a penknife. He studied at Leeds and in London, returning to Leeds as a general practitioner of medicine. He founded the Leeds General Hospital, in which institution he practised with much success for more than forty-five years. He became a Fellow of the Royal Society. Hey's only strictly ophthalmologic writing was "*A Description of the Eye of the Seal*" (*Memoirs of the Philos.Soc.*, 1790). However, in his "*Practical Observations on Surgery*" (London 1803) he treats in a general way of a number of eye diseases.American Encyclopedia of Ophthalmology,Vol.8,p.5920

Heydt, Robert von der (1875-1946) American ophthalmologist who was born in Wiesbaden, Germany, and who came to the United States at the age of six. He received education in the Chicago schools and was sent to Germany at the age of 16. In early manhood, he studied watch making and always carried a watch he himself had made.

Working with his father on return from Germany, it became his duty to keep the large clock at Rush College in good order. It was here that he began to wish for a medical education and for a teaching position at Rush. This wish was fulfilled through his own efforts. He received his medical degree at the University of Illinois in 1903 and practiced ophthalmology in Chicago until his death. Von der Heydt was Professor of Ophthalmology at the Chicago College of Medicine and Surgery from 1909 to 1917, Associate Professor at Rush Medical College from 1926 to 1940, and at the University of Illinois from 1940 to 1943. From 1943 until his death, he was Professor Emeritus of Ophthalmology at the University. He was ophthalmologist at the Illinois Charitable Eye and Ear infirmary from 1905 to 1943 and attending ophthalmologist at Michael Reese Hospital and West Suburban Hospital. Von der Heydt was a member of the American Ophthalmological Society to which he was elected in 1930.

Heyfelder, Johann Ferdinand (1798-1869) German ophthalmologist of Petersburg, Russia. Born at Küstrin, Germany, he studied medicine at Berlin, Jena, Würzburg, Tübingen and Breslau. At the last named institution he received his degree in 1820, presenting as dissertation "*De Prosopalgia Fothergilli.*" After a year or more spent in travel, he settled in Trier, where he became a very successful practitioner. In 1831 he was sent to Berlin to investigate a terrible epidemic of cholera raging there. The result was a work entitled "*Beobachtungen über die Cholera Asiatica*" (Bonn, 1832). With a similar purpose he went to Paris in 1832, and again the result was a book, "*Die Cholera in Frankreich*" (Bonn, 1832). In 1841 he became professor of surgery and ophthalmology and director of the Surgical Clinic at the University of Erlangen. Here he was known as a daring operator, a careful and critical editor, and a brilliant teacher. Dissent arising, however, between himself and his colleague, he resigned his position as professor, and joined the Russian army. In his capacity of army surgeon, he was present at the bombardment of Sveaborg. At the close of the war, he settled in Petrograd (St.Petersburg). Here he resided for fifteen years, honored, and admired by all. To the industry of Hirschberg in his *History of Ophthalmology*, we owe the following bibliography: 1. *Das Chirurgische und Augenkranken-Clinicum der Universität Erlangen von 1. Oktober 1841 bis zum 30. September 1842 von Prof. Heyfelder* (Heidelberger Med. Annalen, 1842). 2. *Das Chirurgische und Augenkranken-Clinicum zu Erlangen von 1. Oktober 1842 bis zum 30 September 1843, von Dr. Heyfelder* (Erlangen, 1843). 3. *Das Chirurgische und Augenkranken-Clinicum der Universität Erlangen., vom 1 Oktober 1843 bis zum 30 September 1844, von Dr. Heyfelder* (Berlin, 1845). 4. *Sur l'Influence de la Commotion sur l'Oeil.* Par le Dr. Heyfelder, etc. Traduit de l'Allemand, sur le Manuscrit de l'Auteur, par le Dr. Ph. van Meerbeek d'Anvers. (*Annal. d'Oculistique*, xiii, S. 145-157, 1845.) 5. *Mikroskopische -Untersuchungen über die Krankhaften Geschwülste* (Heidelberger Klein. Annalen 1845). 6. *Anatomische Untersuchung eines Auges mit Koloboma Iridis.* (Ammon's Z., Ill, 467, 1833.) American Encyclopedia of Ophthalmology, Vol.8, p.5918-5919.

Heyfelder, Oscar (1828-1890) German ophthalmologist. Son of Johann Ferdinand →Heyfelder. Born at Trier, he studied at the Universities of Heidelberg and Erlangen, at the latter institution receiving his degree in 1851. For a number of years he was chief of the surgical and ophthalmological clinic at Erlangen. American Encyclopedia of Ophthalmology, Vol.8, p.5919

Heyl, Albert Gallatin (1847- ?) American ophthalmologist. Born at Philadelphia, he studied in both the academic and the medical departments of the University of Pennsylvania, receiving his professional degree in 1870. After a period of special study in Vienna, London, and Heidelberg, he returned to Philadelphia, and, for the remainder of his life, practised ophthalmology exclusively. He is said to have been a brilliant operator. Among his more important writings are: 1. *A Case of Uremic. Amblyopia.* (Am. Journ. of the Med. Sc., 1874.) 2. *A Case of Hypemia following Lens Discision.* (Phila. Med. Times, 1875.) 3. *Coloboma of the Crystalline Lens.* (Int. Oph. Cong., N. Y., Sept., 1876.) 4. *Metastatic Tenonitis in Diphtheria.* (Med. Jour., 1880.) 5. *Remarks on Lipemia Retinalis Occurring in a Case of Diabetes Mellitus.* (Phila. Med. Times, 1880.) 6. *Thermometric Observations in a Case of Traumatic Diphtheria of the Orbit.* (Phila. Med. Times, 1882.) 7. *Acute Glaucoma Induced by Duboisin.* (Am. Jour., 1882.) American Encyclopedia of Ophthalmology, Vol.8, p.5919

Heymann, Friedrich Moritz (1828-1870) German ophthalmologist. Born at Schneeberg, in Saxony, he received the degree of Doctor in Medicine at Leipzig in 1850, and pursued the study of ophthalmology at Prague, Vienna, Paris and London. In 1851 he settled in Dresden as ophthalmologist, and eight years later was placed in charge of the Division for Eye-Patients at the Deaconess Institution. He was a very skilful operator, and a clear and forceful writer. Heymann's ophthalmologic writings are as follows: 1. *Exposer l'Influence Respective des Divers Nerfs sur le Mouvement de l'Iris*. (Awarded a gold medal by the Belgian Academy of Medicine at Brussels.) 2. *Ueber die Beziehungen der Erkrankungen der Verschiedenen Gebilde des Auges zur Sogenannten Amaurose*. (Prager Vierteljahrschrift, XIII.) 3. *Zur Sclerotico-Chorioiditis Posterior*. (Graefe's Archiv.2) 4. *Ueber Amaurose bei Bright'scher Krankheit und Fettdegeneration der Netzhaut*. (Ibid., II, 2.) 5. *Frische Netzhauthämorrhagien*. (Ibid., VIII.) 6. *Ueber Glaucom in Aphakischen Augen*. (Klin.Monatsbl.für Augenheilk., V.) 7. *Ein Fall von Netzhautgliom mit Zahlreichen Metastasen*. (v. Graefe's Archiv, XV.) 8. *Krankheiten der Orbita*. (v. Graefe's Archiv, VII.) 9. *Die Autoskopie des Auges und eine neue Methode derselben*. (1863.) 10. *Ueber Künstliche Beleuchtung*. (Prager Vierteljahrschr., C.) *Die empfindende Netzhautschicht* Dresden 1863? American Encyclopedia of Ophthalmology, Vol.8,p.5919-5920.

Heymans, Corneel (1892-1968) Belgian pharmacologist at the Institute of pharmacodynamics and pharmacotherapy. He was the son of Jan-Frans Heymans, the founder of the Institute. He won the Nobel prize for physiology and medicine in 1939. He made some contributions to the *pharmacology of the pupil* and reported on this for the Belgian Ophthalmological Society in 1949. He trained the ophthalmologists Antoon Hoorens (1884-1960) and André Philips (1921-1968) (Verriest)

Hida, Tetsuo (1948-) Japanese Ophthalmologist, Professor of Ophthalmology of Kyorin University. He graduated from Keio University in 1973, studied Ophthalmology under Prof.→UEMURA Yasuo and received his Doctor of Medical Sciences in 1982 (thesis: *Hyaloid Vascular System of the Rat: A Study on its Topography Examined by Plastic Cast*: Acta Soc. Ophthalmol. Jpn.786: 315, 1982). Subsequently, he spent 2 years as a research fellow at Duke University Eye Center (1984-1986) (*Experimental transvitreal cyanoacrylate retinopexy in a primate model*. Am. J. Ophthalmol. 103:782, 1987). He is in the present position as above since 1994. He is a member of the Board of Trustees of the Japan Vitreo-Retina Society, of the Japan Society of Ophthalmic Surgeons, and of the Japanese Society of Ophthalmic Diabetology, and a Councillor of the Japanese Ophthalmological Society. He is also a member of the Club Jules Gonin, of Association for Research in Vision and Ophthalmology and is a fellow of American Academy of Ophthalmology. His main interest has been vitreoretinal diseases, ocular surgery, diabetic retinopathy etc. and has many publications. Some examples are "*Clinical features of a newly recognized type of lattice corneal dystrophy* - Am. J. Ophthalmol. 104:241, 1987" and "*Classification of the stages of proliferative vitreoretinopathy in a refined experimental model in the rabbit eye* - Graefe's Arch Clin Exp Ophthalmol. 225:7303, 1987. He organized the 37th Meeting of Japan Vitreo-Retina Society as the president in 1998. (Department of Ophthalmology, Kyorin University School of Medicine, 6-20-2, Shinkawa, Mitaka, Tokyo 181-8611, Japan. Phone: +81-42-247-5511, fax: +81-422-76-6316)(SM)



Akira Hidaka

Hidaka, Akira (1862-1927) Japanese Ophthalmologist graduated from Tokyo University in 1885, studied Ophthalmology under J. SCRIBA. He was then invited as the Professor of Ophthalmology to the Medical School of Akita, Sendai. Subsequently, he was appointed the Professor of Ophthalmology at Jikei Medical College in 1891. He studied at the University of Halle in Germany for 2 years from 1896 and received the degree, Doktor Medicine. He stayed as the Professor till 1921. He served the Jikei University as Member of the Executive Council. After retirement, he was made a Professor Emeritus of Jikei University. (SM)

Higgins, Charles (1846-1920) British ophthalmic surgeon. He was appointed assistant ophthalmic surgeon to Guy's Hospital in 1873, ophthalmic surgeon in 1882 and consulting ophthalmic surgeon 1906. He performed his last operation in November 1920, a few weeks before he died, aged 75. He wrote little and published *Hints on Ophthalmic out-*

patient practice (1877); *Handbook of ophthalmic practice* (1882) ; A *Manual of Ophthalmic Practice* (1888). BJO 1921,5:138-142.Albert.

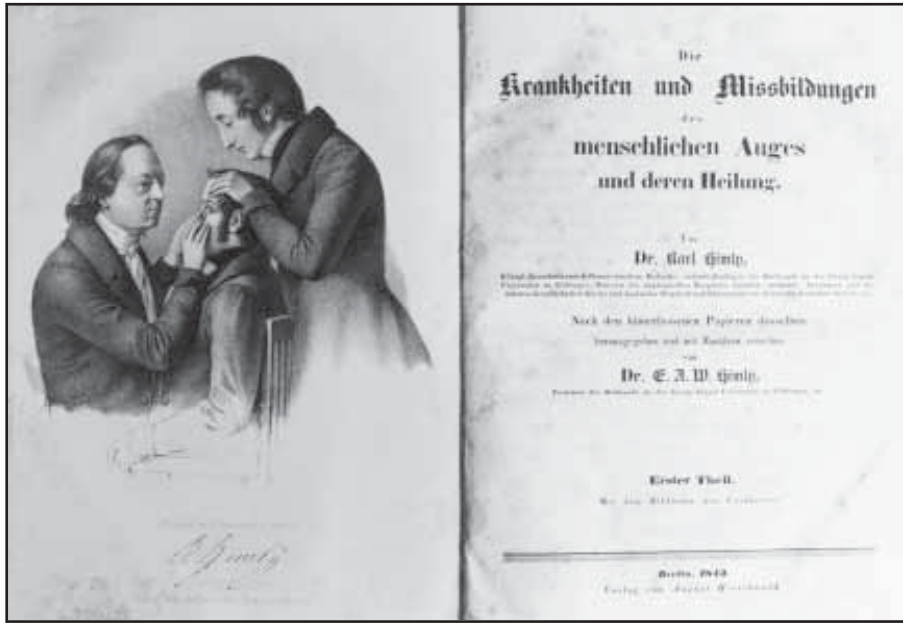
Highmore, Nathaniel (1613-1685) English anatomist, who discovered the accessory nasal sinus which bears his name today. Because of the important pathological relations which this large, but imperfectly drained, cavity bears, directly and indirectly, to the eye, its discoverer should be remembered by ophthalmologists. Highmore was born at Fordingbridge, England. He received his medical degree at Oxford in 1642, and at once proceeded to the practise of medicine and surgery at Sherborne, in Dorsetshire. In this little place he continued to practise for the remainder of his days, becoming celebrated not only as an anatomist, but also as a general practitioner of both medicine and surgery. His most important works are: "*Disquisitio Corporis Humani Anatomica*" (Hague, 1651) and "*The History of Generation, Examining the Opinions of Divers Authors and chiefly of Sir K. Digby, and Concerning the Cure of Wounds by Sir Gibbert Talbot's Sympathetic Powder*" (London, 1651).American Encyclopedia of Ophthalmology,Vol.8,p.5921

Hildreth, Joseph Sullivan (1832-1870) American ophthalmologist was born at Cohasset, Norfolk County, Massachusetts. Nothing concerning his family is known other than the 'Suggestion that it was the same as that of Richard Hildreth, the historian. He went to Chicago from Paris, France, where he was superintendent of Desmarres' Eye and Ear Institute, under its famous founder. He also studied two years in Berlin under R. Virchow. He was appointed surgeon of United States Volunteers in 1863, stationed at Chicago, and honorably mustered out of the service, December 10, 1-865. In the summer of 1863, the Chicago City Hospital was occupied by the United States military authorities, and in July, 1865, surgeon J. S. Hildreth took charge. The scope of treatment was limited to diseases of the eye and ear, and the hospital was termed the *Desmarres Eye and Ear Hospital*. Its location was at the corner of 18th and Arnold streets; capacity, 130 patients, and it boasted forty attendants. In 1866 it became the Cook County Hospital, and Dr. Hildreth became a consultant on its medical staff. Dr. Hildreth was a pioneer in ophthalmology, the *first* professor of ophthalmology and otology in the Chicago Medical College, and held that position at the time of his death. He contributed papers on ophthalmology to the Chicago and Illinois state medical societies.American Encyclopedia of Ophthalmology,Vol.8,p.5921.

Hilliard, Walter (1845-1915) American ophthalmologist and oto-laryngologist of Denver, Colorado. Born at Oxford, N. C., he received his medical degree at Tulane University, New Orleans, in 1869, and, for twenty-six years, practised at Denver as a specialist in diseases of the eye, ear, nose and throat. Hilliard was a man of high ideals and of great public spirit. He was very helpful to the younger men in his profession.American Encyclopedia of Ophthalmology,Vol.8,p.5922-5923.

Hillmer. A German quack, who flourished about the middle of the 18th century. He was a very rough and careless operator, who boxed his patients jaws, even while the point of his cataract-needle lay within their eyes. It is said that, immediately after a cataract operation he would not infrequently permit the patient to walk to his own home, and would even advise him to drive, or else to ride about on horseback. Hillmer, as might have been expected, had but few successes. He worked, or, rather, blundered and plundered, chiefly in Paris, Lyons, Dijon, Montpellier, Madrid, Lisbon, and numerous towns and cities in Germany. His exact life dates are unknown. He was, however, at Lyons in June, 1749, and in the *Courrier d'Avignon* for Aug. 17, 1756, we read as follows: "Doctor and Professor Hillmer, adviser to his majesty, the King of Prussia, arrived in this city the third of this month, coming from Lisbon via Madrid. From the fifth until now, he has not discontinued his operations, and the success which they have had have merited for him the eulogies of many physicians and surgeons, and of numerous persons of distinction who have been eye witnesses to the cure of several blind persons, one of whom had been blind from birth. The success of these operations has justified the high idea which had been formed of the talents of Dr. Hillmer, for the patients who were cured during the first days go about and do as they like without the assistance of guides, as if they had never been deprived of vision. "M. Hillmer will return in a short time to the Court of Berlin." American Encyclopedia of Ophthalmology, Vol.8,p.5923; see also the monograph A.Henning "*Die Affäre Hillmer*" Frankfurt 1987

Himly, Carl (1772-1837) German ophthalmologist, re-discoverer of artificial mydriasis for use in ophthalmology, co-founder (with Adam Schmidt) of the first ophthalmologic journal, and one of the earliest teachers of ophthalmology as a specialty. Born at



Karl Himly

Braunschweig, he studied both there and at Göttingen. His thesis was *Dissertatio inauguralis ... observationes quasdam circa epidemiam, hujus anni dysentericam sistens* Göttingen 1794. In 1795 he became professor in the Medico-Chirurgical Klinik at Braunschweig, a position which he resigned in 1801 in order to accept the chair of internal medicine at Jena. In 1803 he removed to Göttingen, in order to become Director of the Academic Hospital in that city. In the same year he began to give instruction in a course devoted exclusively to ophthalmology. Himly at the same time, founded, together with Adam Schmidt, the first ophthalmologic periodical, *Die Ophthalmologische Bibliothek*. This journal became defunct in 1807, but, in 1816, was revived by Himly alone,

under the slightly altered title, *Bibliothek für Ophthalmologie*. This journal, like its predecessor, was short-lived, passing away in 1819. Himly has been said to have been the first to make use of artificial mydriasis in ophthalmology. This, however, is a mistake. The first was undoubtedly Reimarus, of Hamburg, and the second, Loder, of Jena. Himly was only a slow third. Himly's chief ophthalmologic writings are as follows: 1. *Ophthalmologische Beobachtungen und Untersuchungen* (Bremen, 1801). 2. *Einleitung in die Augenheilkunde*. (Göttingen 1820, 3rd ed.1830) 3. *Die Krankheiten und Missbildungen des Menschlichen Auges und deren Heilung*. (2 vols., Berlin, 1842-43; edited and much improved and enlarged by the author's son, E. A. W. Himly.) 4. *De la paralysie de l'iris occasionnée par une application locale de la belladonna* Paris 1802 ; Himly was drowned in the Leine Mar. 22, 1837. American Encyclopedia of Ophthalmology, Vol.8,p.5923-5924.

Hine, Montague Leonard (1883-1967) British ophthalmologist. Hine was born at Leytonstone and studied medicine at the Middlesex Hospital where he had a brilliant academic career, qualifying in 1901. He took his M.D. in 1907 and became F.R.C.S. in 1908. After a professional journey to Singapore and the Cocos Islands he occupied junior posts at the Royal Westminster Ophthalmic Hospital and in 1915 was appointed a consulting surgeon and became Dean of the Medical School (1920-1946). In 1934 he was appointed ophthalmic surgeon to Charing Cross Hospital. He served during both world wars, in the first as ophthalmic specialist in the army and in the second in the Emergency Medical Service. He was a past president of the Ophthalmological Section of the Royal Society of Medicine and Secretary of the Ophthalmological Society of the United Kingdom from 1927-1930, and a Member of Council 1926-1927 and 1930-1933. Hine was a first-class operator and a shrewd and accurate diagnostician; as a teacher he was so lucid and interesting that he attracted a very large following from the post-graduates at the Royal Westminster Ophthalmic Hospital and the students at Charing Cross Hospital. BJO 1968,52:287-288



Ryuichi Hioki

Hioki, Ryuichi (1910-1987) Japanese Engineer, graduated from the Faculty of Science of Tokyo University in 1931, was appointed the Professor, at the Department of Physics of Tokyo University in 1950. After retirement in 1969 he was invited to Chiba University where he retired in 1974. He was made Professor Emeritus of Tokyo University. He specialized in colorimetry, ophthalmic optics, and optical design: he developed the Hioki anomaloscope and adaptometer which were widely used in ophthalmic research. He completed a "*Handbook of Color Science*" and served as the President of the Society of

Ophthalmic Optics and Society of Color Science. He was a member of the Optical Society of America. (SM)

Hippel, Arthur von (1841-1916) German ophthalmologist born in Fischhausen, Germany, who received his M.D. at Königsberg (1865) and who, influenced by Arlt in Vienna, decided to specialize in ophthalmology after doing there postgraduate study. He held professorships at Königsberg (1874-1879, 1890-1892), Giessen (1879-1890), Halle (1892-1900), and Göttingen (1900-1914), where he was succeeded by his son Eugen. He made important contributions to corneal transplantation. He wrote: *Ueber totale angeborene Farbenblindheit*. Berlin 1894; *Über die Wirkung des Strychnins auf das gesunde und kranke Auge* Berlin 1873; *Über den Einfluss hygienischer Maßregeln auf die Schulmyopie Giessen* 1889. Albert. see Mannis/*Corneal Transplantation-A History in Profiles*.Hirsch.Fischer.

Hippel, Eugen von (1867-1939) son of Arthur von Hippel, was born in Königsberg and received his M.D. at Göttingen in 1889. Von Hippel worked as assistant to Theodor→Leber before becoming professor of ophthalmology at the universities of Heidelberg (1897-1909), Halle (1909-1914), and Göttingen (1914-1939). Hippel's chief contributions were his researches on papilledema, sympathetic ophthalmia, tubercular infection of the eye, diseases of the optic nerves, and angiomas retinæ-the latter now known as "Hippel's disease." Hippel's doctoral dissertation was *Ueber Siderosis bulbi und die Beziehungen zwischen siderotischer und Mimotogener Pigmentierung*. Leipzig 1894; *Über die palliativtrepanation bei Stauungspapille* Leipzig 1909 and *Die Krankheiten des Sehnerven* (in Graefe-Saemisch *Handbuch der Augenheilkunde*, 2nd. Edition, Vol.7, part 2.Albert. Fischer.

Hire, P. de la (1640-1718) French ophthalmologist, who, in 1709, repeated the submersion experiment of Jean Méry on the eye of a cat, and first furnished the correct solution of the most important question raised by that experiment. Méry's experiment (1704) was this: He submerged a cat under water, and then beheld in all its glory the animal's fundus oculi-the entrance of the optic nerve, the vessels and all the various hues of the brilliant choroid coat. Méry's explanation of his own experiment, however, was very erroneous. He believed that the reason why the fundus could be observed in the submerged, but not in the unsubmerged eye, was that the water "evened over" the various tiny "inequalities" which must exist on its anterior corneal surface. De la Hire, two years later, came forward with the correct explanation. He made it entirely clear that the reason why the fundus of the submerged eye could be perceived was that the water did away with all the corneal refraction of the light, so that all the light-rays leaving a given point upon the fundus, emerge from the eye not as a parallel, but as a strongly divergent, pencil. He also observed incidentally that all the disturbing light-reflexes which appear on the cornea *in aero* are done away with by submersion. American Encyclopedia of Ophthalmology, Vol.8, p.5942



Makoto Hiroishi

Hiroishi, Makoto (1925-1991) Japanese Ophthalmologist, Former Assistant Professor of Kyushu University, Director of Hiroishi Eye Hospital, Fukuoka. He graduated from Kyushu University in 1949, studied under Prof. TAMURA Shigemi and received the degree Doctor of Medical Sciences in 1954 for his work on the Electro-oculogram (EOG). In collaboration with the Faculty of Engineering of Kyushu University, he built a new direct current amplifier whereby he recorded the EOG. This was probably the first in the World to record EOG and to study eye movements. The thesis consisted of 6 papers (*Studies of Electro-oculogram*. No.1: J. Jpn. Ophthalmol. Soc. 57: 55, No.2: *ibid.* 57: 68, No.3. *ibid.* 57: 71, No.4. *ibid.* 57: 607, 1953, No.5. *ibid.* 58: 1601, 1954; No. 6. *Ibid.* 59: 169, 1955). He was promoted to the Assistant Professor of Kyushu University in 1957. He was one of the leaders in the research of eye movements and strabismus, and he delivered a Special Report "Various aspects of strabismus" at the 62nd Congress of the Japanese Ophthalmological Society in 1958 (J. Jpn. Ophthalmol. Soc. 62: 2100, 1958). He was one of the Founders of the *Japanese Association of Strabismus and Amblyopia* in 1961, and he delivered the Special Lecture "Classification of Strabismus" at the 2nd Meeting of the Society in 1964. On the basis of his donation, the Society created the "HIROISHI AWARD" to be granted to those who accomplished excellent works in the field. He left the University in 1988 and founded Hiroishi Eye Hospital in the city of Fukuoka and worked as the Director.[SM]

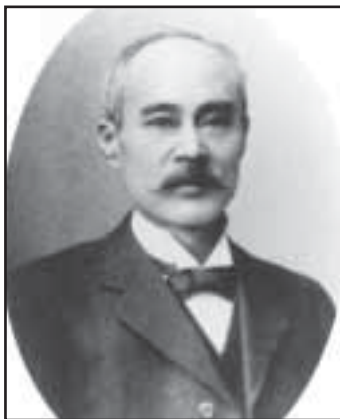
Hirosawa, Kazushige (1938-) Japanese Cell biologist. He graduated from Tokyo University, Faculty of Medicine in 1963, and carried out postgraduate research at the Anatomy Department of Tokyo University and the Jules Stein Eye Institute UCLA. He was granted Doctor of Medical Science in 1968 from Tokyo University (thesis: *Electron microscopic study of the substantia nigra of the Japanese monkey*). He was promoted to Professor at the Department of Fine Morphology of the Institute of Medical Science of Tokyo University in 1984, and he worked in this position until retirement in 1999, whereupon he is entitled the Professor Emeritus of Tokyo University. During his tenure he served as the Director of the Institute 1992-1996. He published many scientific articles that include "Monoclonal antibodies which recognize endoplasmic reticulum in the retinal pigment epithelium. *Exp Eye Res.* 60:765,1991, and "A novel member of the Ig superfamily, RPE7, expressed in the bovine retinal pigment epithelial cells. *Exp. Eye Res.* 67:31,1998". He served as the Executive Director of the Japan Society of Anatomists and the President of Japan Society of Electron Microscopy. He was awarded "Distinguished electron Microscopist year 1983". He is a member of Association for Research in Vision and Ophthalmology, New York Academy of Science and also Emeritus member of the Society of Neuroscience. Currently, he works as a Professor at Waseda University to establish a new Institute of Public Health. (Faculty of Public Health, Waseda University, e-mail: YQC01006@nifty.ne.jp)(SM)



Kinnosuke Hirose

Hirose, Kinnosuke (1896-1996) Japanese Ophthalmologist, graduated from Kyushu University in 1924, studied Ophthalmology under Prof. Y.OHNISHI. He received the degree Doctor of Medicine from Kyushu University in 1931. He was made the Professor and Chairman of the Department of Ophthalmology of Nagasaki University, the position he held until retirement in 1962. During his tenure, he gave a special lecture "Anatomy and Pathology of the Eyelid" in the Japanese at the 61st Congress of the Japanese Ophthalmological Society in 1957. He served as the President of the 64th Congress of the Society held in 1960, also as the Director of the University Hospital and Member of Japanese Academy of Science. (SM)

Hirose, Tatsuo (1936-) American Ophthalmologist of Japanese origin, Clinical Professor of Ophthalmology of the Harvard Medical School (1993-present) and Senior Clinical Scientist of the Schepens Eye Research Institute, Boston, U.S.A. (1995-present). He was born in Kanazawa Japan and graduated from the Faculty of Medicine of Kanazawa University in 1961. He then studied Ophthalmology in the Graduate School of Medicine of the University under Prof. KURACHI Yoshi and received the degree Doctor of Medical Sciences in 1969 (thesis: *The on-and-off effect in pigeon's ERG*. No. 1, *J. Jpn. Ophthalmol. Soc.* 68: 1485, 1964 and No. 2, *ibid.* 69: 1196, 1965). At the 4th year of his Course of the Graduate School, he was granted Fulbright Fellowship that allowed him to study at Cornell University School of Medicine in 1965-1968. He came back to the United States in 1969 and became a Research Fellow of the Eye Research Institute of Retina (now Schepens Eye Research Institute). He was promoted to Clinical Professor as above in 1993 and to Senior Clinical Scientist in 1995. He has been working on development of new surgical techniques for severe retinal detachment, such as open-sky vitrectomy, on retinopathy of prematurity and electrophysiology of vision. He published 143 scientific original papers, contributed chapters to 22 books and co-edited a book: "*Vitreous surgery and advances in fundus diagnosis and treatment*" with Freeman HM and Schepens, Ch (Appleton-Century-Crofts, New York, 1977). Some examples of his original articles are "Snowflake degeneration in hereditary vitreoretinal degeneration. *Am. J. Ophthalmol.* 77: 143, 1974", "Vision in Stage 5 retinopathy of prematurity after retinal reattachment by open-sky vitrectomy. *Arch. Ophthalmol.* 111: 345. 1993" and "Surgical advances in retinopathy of prematurity. *International Ophthalmol. Clinics*, 39:275, 1999". With his expertise, he has given many teaching courses and served as Visiting Professor at Kansai Medical University, Osaka, Japan (1983), at Tokyo Women's Medical College (1988) and at Sankara Nethralaya, Madras, India (1995). He is a recipient of Honor Award of American Academy of Ophthalmology (1983), Senior Honor Award of the Academy (1994), The best Doctors in America (1996-1997) and Paul Kayser International Award of Merit in Retina Research (1999). He is on the Executive Committee of the Harvard Department of Ophthalmology and on the Promotion Committee of the Schepens Eye Research Institute since 1993. (Schepens Eye Research Institute, Harvard Medical School.



Kyoemon Hirota

100 Charles River Plaza Boston, MA 02114, U.S.A.; phone: 1-617-523-7800; fax: 1-617-227-0996, e-mail: hirose@vision.eri.harvard.edu)(SM)

Hirota, Kyoemon (1860-1923) Japanese Ophthalmologist, graduated from the Medical School of Tokyo University, studied Ophthalmology under J. SCIBA, K. UME and T.→SUDA. He was the *first* Japanese Ophthalmologist who used cocaine as a surface anesthetic in 1885, shortly after the report of Carl→Koller in 1884. He studied in 1900 at the University of Halle under von→Hippel, received the degree Doktor Medicine, and returned home in 1902. He practiced in Tokyo and taught Ophthalmology at Jikei Medical College, as the Clinical Professor until retirement in 1922. (SM)

Hirota, Toshio (1891-1972) Son of Kyoemon. He graduated from Tokyo University in 1919 and studied Ophthalmology under Prof. J. KOMOTO. He worked as the Head of the Eye Clinic of Yokohama Juzen Hospital (now Yokohama City University Hospital) from 1923 to 1925, and then was appointed the Prof. of Ophthalmology at Nihon University, the position he held until 1938. He then practiced in Tokyo at the Clinic that his father founded. (SM)



Toshio Hirota

Hirsch, August (1817-1894) German hygienist and famous medical historian. Born at Danzig, he studied at Leipzig and Berlin, at the latter institution receiving his medical degree in 1843. His dissertation was "*De Laryngostasi Exsudativa Vulgo Croup Vocata.*" He settled for a time at Elbing, later moving to Danzig. Here he wrote "*Ueber die Geographische Verbreitung von Malaria Fieber und Lungenschwindsucht and den Räumlichen Antagonismus dieser Krankheiten*" (1848), as well as a number of other articles. In 1863 he became professor of Medicine at Berlin, to which city he then removed. In 1873 Pettenckker and he secured the appointment by the Government of the "Cholera Commission for the German Empire." He himself, as a member of this commission, investigated the cholera in West Prussia and Posen. The result of this investigation was "*Das Auftreten uncl der Verlauf der Cholera in den preussischen Provinzen Posen und Preussen, May-Sept., 1873*" (Berlin, 1874; 2d ed., 1875). In 1874 he attended the International Cholera-Conference at Vienna, as a delegate from the German government. In 1879 he investigated the pestilence in Russia, and wrote upon this subject "*Mittheilungen über die Pest-Epidemie im Winter 1878-79 in dem russischen Provinz. Astrachan*" (Berlin 1880). One of the most important of all his writings was the "*Handbuch der Historisch-Geographischen Pathologie*" (2 vols., Erlangen, 1859 to 64; 2d ed. 1881 to '86; English trans. by the New Sydenham Society, 1883). His most important ophthalmologic writing was the well known "*Geschichte der Augenheilkunde*" (Leipsic, 1877), which formed the seventh volume of the first edition of the Graefe-Saemisch *Handbuch der Gesamten Augenheilkunde*. This monumental work was of vast importance in its day, but has now been wholly superseded by the voluminous "*Geschichte der Augenheilkunde*" by Hirschberg (presently in English translation[in progress] by Frederick C.→Blodi and Donald L.→Blanchard) completed by a supplementary series "*The Monographs*" edited by J.-P.Wayenborgh (in progress). Of almost equal importance, however, in the history of ophthalmology, are the "*Geschichte d. Medicinische Wissenschaft in Deutschland*" (Munich and Leipzig, 1893) and the "*Biographisches Lexikon der Hervorragenden Aerzte Aller Zeiten und Völker*" (6 vols.) Vienna and Leipsig, 1884-1888, of which he was chief editor. A two-volumes supplement was edited in 1962 by I.Fischer (Vienna). American Encyclopedia of Ophthalmology, Vol.8,p.5943-5944.JPW



Julius Hirschberg

Hirschberg, Julius (1843-1925) German ophthalmologist and historian. Hirschberg was born in Potsdam and received his M.D. in 1866 at Berlin, where he became assistant to von Graefe. Hirschberg established his own clinic in 1869, and from 1870 lectured at the University of Berlin, becoming professor in 1879. He wrote a vast history of ophthalmology (1899-1918); founded and edited the *Centralblatt für Augenheilkunde* (Vols.1-43, 1877-1919). He was particularly interested in the ophthalmic effects of syphilis and devised a magnet for the extraction of foreign bodies (*Über die Magnet-Extraction* etc.Berliner klin.Wochenschr.1883,209-213). He authored: *Der Markschwamm der Netzhaut* Berlin 1869; *Beiträge zur praktischen Augenheilkunde* Leipzig 1877; *Der Electromagnet in der Augenheilkunde* Leipzig 1885; *Eine Woche in Tunis: Tagebuchblätter.* Leipzig 1885; *Wörterbuch der Augenheilkunde* Leipzig 1887. *Aegypten: Geschichtliche Studien eines Augenarztes* Leipzig 1890; *Einführung in die Augenheilkunde* (2 vols.)



Leipzig 1892-1910. *Fünfundzwanzigjähriger Bericht über die Augenheilanstalt*. Berlin 1895; *Hilfswörterbuch zum Aristophanes* Leipzig 1898. *Die Augenheilkunde des Aetius aus Amida* Leipzig 1899. (English translation by Richey L. Waugh, Jr. *The ophthalmology of Aetius of Amida* Oostende Wayenborgh 2000); *Die Magnet-Operation in der Augenheilkunde* Leipzig 1899; *Geschichte der Augenheilkunde*. Leipzig & Berlin 1899-1918. 25 parts and index. Forms the last part of the second edition of the Graefe-Saemisch *Handbuch der Gesammten Augenheilkunde*. Translation by Frederick C. Blodi: *The History of ophthalmology* (21 vols.) Bonn-Oostende 1982ff. Hirschberg's huge library was sold by Hirschberg himself to Professor →Komoto in Tokyo. Albert.Fischer.BMC.JPW

Hirschler, Ignacz (1823-1891) Hungarian Ophthalmologist. Ignacz Hirschler was born in Stomfa. He studied in Pest, and completed his medical education in Vienna. He graduated in 1846 with the Diploma of the Medical Faculty of Vienna and began clinical work in the Municipal Hospital of Vienna under Dr. Rosas. A year later (1847-1848) we find him in Paris as Assistant of Professor Desmarres until his return to Hungary in 1849. In Pest he began ophthalmic practice. Hirschler was a clinician with keen diagnostical ability and a meticulous and talented eye surgeon. From 1859 he worked as Ophthalmologist in the Hospital for Poor Children. Rivalry hindered him from obtaining a University appointment, for which he had ambitions and had the ability of doing it with recognition. From a Hungarian point of view, his chief merit to be acknowledged is the founding of the Journal 'Szemeszet' ('Ophthalmology'), in 1864, which first appeared as a supplement of the 'Medical Weekly' but from 1904 it

became an independent Journal. In the sixties Hirschler not only did the Editor's work but wrote all the articles. It was only after 1870 that a group of young trained ophthalmologists also contributed. His book, the '*Autobiographisches Fragment*' appeared in 1859, an excellent survey on the medical conditions of the West-European countries, with lively descriptions of the work in progress in the University Hospitals of Rosas and Desmarres. Dr. Hirschler made many study trips. He visited hospitals for eye diseases in Prague, Berlin, Paris and London. He was most impressed by the Moorfields Eye Hospital, London, and felt that, as far as medical teaching and treatment were concerned, it was the best in Europe. From the eighties he gradually retired from medical practice, partly because of the diminution of his vision (→Schulek performed a successful cataract operation in 1882) and partly because his public activities were claiming more and more of his time. He was chairman of the Medical Society of Hungary and a member of the Upper House of Parliament. [Magda Radnòt: *Famous Hungarian Ophthalmologists* Budapest 1970] American Encyclopedia of Ophthalmology, Vol. 8, p. 5944

Hirtenstein, Arnost (1909-1986) Czech ophthalmologist. Arnost Hirtenstein was born in Slovakia in 1909 and qualified MD in Prague in 1934. After military service during which he developed an interest in ophthalmology he entered general practice in a small town in Northern Bohemia but after three years, in 1939, he was arrested by the Gestapo and forced to leave the country. He reached France and on the outbreak of war joined the Czechoslovak forces. On the collapse of France he was evacuated to England and trained in ophthalmology at Oxford and Wolverhampton. In 1943 he joined the RAF as a graded ophthalmologist. After the war he returned to Czechoslovakia to find that his parents and elder brother had died in concentration camps and his youngest brother had been killed while a partisan. He returned to England in 1946 and became senior registrar and chief assistant at Moorfields and consultant to Selly Oak Hospital, where he set up an eye department. Two years later he was appointed to Wolverhampton Eye Infirmary, where he stayed until his retirement in 1974. From 1950 he developed an interest in corneal grafting. He pioneered this procedure in the Midlands and lectured in the United Kingdom and abroad. He had a large series of successful cases and was an excellent teacher and diagnostician. He earned following titles: MRCS and FRCS 1950; MD Prague 1934; DO Oxford 1943; DOMS 1944. Brit. med. J. 1986, 292:905. LFRCS

His, Wilhelm (1831-1904) Swiss anatomist of Basel, investigator of histogenesis. His received his training in physiology under Müller, Remak, Virchow, and Kölliker. Having

earned his M.D. (1854) at Basel, he became professor of anatomy and physiology there (1857-1872) and later at Leipzig (1872-1904). Of his many achievements in histology, the greatest are his embryologic studies tracing the origin of tissues. He invented a microtome allowing him to produce serial sections from the same embryo, with which he presented graphic reconstructions of embryonic development in two and three dimensions. (see *Beschreibung eines Mikrotoms* in *Arch f. mikr Anatomie* 1870, 6: 229-232). He wrote: *Beiträge zur normalen und pathologischen Histologie der Cornea* Basel 1856; *Die anatomische Nomenclatur* Leipzig 1895; *Die Häute und Höhlen des Körpers* Basel 1865; *Anatomie menschlicher Embryonen* (3 parts) Leipzig 1880-1885. Albert.BMC

Hiwatari, Shogo (1916-) Japanese Ophthalmologist, Professor Emeritus of National Defense Medical College. He was born as a son of a scholarly Ophthalmologist in Kagoshima, and he graduated from Tokyo University in 1943. He was drafted to the Navy during the World War II and after its termination, he returned to the University and studied Ophthalmology under Prof.→SHOJI Yoshiharu. He submitted thesis to Tokyo University and received his Doctor of Medical Sciences in 1950 (thesis: *Studies of retinal arteries of the aged*. No.1. Jpn. J. Clin. Ophthalmol. 6: 466, 1952; No.2, *ibid.* 7: 238, No.3, *ibid.* 7: 267; 384, No.4, *ibid.* 7: 305, No.5 *ibid.* 7: 318, No.6 *ibid.* 7: 499, No. 7 *ibid.* 7: 499, No.8 *ibid.* 7: 566, 1952, No. 9: J. Jpn. Ophthalmol. Soc. 57: 479, 1953). He served as the Professor and Chairman of the Department of Ophthalmology of Nippon Medical College (1960-1970), and then worked as the Professor of Ophthalmology at University of Teheran, Iran (1971-1976). He came home to be the Professor and Chairman of the Department of Ophthalmology, National Defense Medical College in 1977 and worked until retirement in 1982. He served as a member of many key committees of the College and in professional Societies: they are Councillor of the Japanese Ophthalmological Society (JOS)(1963-1968), of Japanese Diabetes Society (1958-1999), of the Japanese Society of Gerontology (1959-1999), Japanese Society of Vascular Organs (1962-1999), Executive Director of the Japanese Society of Cancer Therapy (1966-1973) and its Councillor (1977-1981). He is named the Prominent member of Iranian Ophthalmological Society and was also a member of Italian, Finnish and Portuguese Ophthalmological Societies. He published 139 original papers, delivered 75 lectures at Overseas Congresses, 15 special lectures at National Congresses. His research interest has been mainly in aging problems of the ocular vascular system: some examples of his papers are "Investigations on the retinal blood vessels and blood pressure in the aged Japanese and their prognosis. XVII Concilium Acta, Vol. 1:469, 1959", "Intravitreal Urokinase in the treatment of vitreous hemorrhage, Ber. Deutsch Ophthalmol. Ges. 78: 917, 1981", "An electron microscopic study of the human iris vessels, with special reference to the vascular changes on aging. Jpn. J. Ophthalmol.13: 79, 1969" and "An electron microscopic study of the conjunctival vessels. Analysis of the vascular pathology with PAM impregnation technique".

Hjort, Johan Storm Aubert (1835-1905) Norwegian surgeon, who devoted much attention to ophthalmology. Born at Christiania (now Oslo-JPW), Norway, the son of Jens Johan Hjort, a prominent general surgeon, he received his medical degree at Christiania. In 1864 he accompanied the Danish army on a military expedition and spent the year 1865 in travel. In 1873 he was made Professor of Medicine at the University of Christiania and Chief physician to the Surgical Division of the Royal Hospital. He wrote a large number of journal articles on ophthalmologic subjects: keratitis, glaucoma, the visual purple, coloboma of the iris, etc. American Encyclopedia of Ophthalmology, Vol.8,p.5968

Ho, Chi-Kin (1953-) Chinese Ophthalmologist, Chief of Service, Department of Ophthalmology, Tuen Mun Hospital, Adjunct Assistant Professor, Chinese University of Hong Kong. He graduated from the University of Hong Kong in 1978 and studied further in Ireland (Diploma of Ophthalmology, 1985), Edinburgh (FRCS, 1987), FRCOphth. (UK, 1989) and FHKAM (Ophth. 1993). He has held many professional positions, e.g. President, Hong Kong Ophthalmological Society (1993-1999), Councillor and Medical Advisor of Hong Kong Society for the Blind (1996-), Supplementary Medical Professions Council (1997-) and he served as the Hong Kong Representative to the International Council of Ophthalmology (1993-1999). His publications embrace "Eccentric photorefractive error; a new method for refractive error in very young children. HKJ. Paediatr. 12: 68, 1995" and "Current trends in paediatric Ophthalmology in Hong Kong, the First

35 years, Hong Kong Paediatric Society, 1997". He is the author of "*The Past and the Present of Ophthalmology in Hong Kong*, in: Ed. Lim, A.S.M. et al *Ophthalmology Awakens in Asia – 40 years of the Asia-Pacific Academy of Ophthalmology*, Singapore Eye Centre 1999". (Tuen Mun Hospital, Tsing Chung Koon Road, Tuen Mun, New Territories, Hong Kong, China. phone +852-2468-5400, fax: +852-2403-1491, e-mail: ckho@ha.org.hk)

Hobbs, Henry Edwin (1910-1990) British ophthalmologist. After qualification in 1938, he did house jobs, then took the FRCS in 1941, proceeding to the DOMS and the Oxford DO in 1942, and entered the Royal Air Force as an ophthalmic specialist with the rank of squadron leader. He was particularly to the fore in advances in glaucoma. Glaucoma work inevitably involved study of visual field anomalies which served him well in his subsequent appointment to the Maida Vale Branch of the National Hospital, where he developed a useful device for fixation of an eye with a central scotoma during Bjerrum screen examination, He was registrar and chief assistant at the Holborn Branch of Moorfields. Apart from his early glaucoma work he will be remembered for the original observation of chloroquine retinopathy documented and jointly written with Sorsby and Freedman and published in the Lancet in 1959. He was concerned for leprosy sufferers: he was honorary consultant ophthalmic surgeon to the Hospital and Homes of St Giles, East Hanningfield. Leprosy work was regarded as particularly important to the Hospital of St. John of Jerusalem. In recognition of this and other Christian acts he was appointed first an officer and subsequently, in 1970, a commander of the order of St. John. Hobbs authored *Principles of Ophthalmology*, published in 1965. BJO 1991,75:321 Brit med J. 1991,302:405.JPW

Hock, Jakob (1831-1890) Austrian ophthalmologist of Vienna. Born at Prague, he received his medical degree at Vienna in 1861, and then, for a time, pursued the study of ophthalmology under Ed.→Jaeger. In 1866 he settled in Vienna for the practice of ophthalmology, and was almost immediately successful. In 1879 he qualified as privat docent at the University, and seven years later established a private eye infirmary. He was also ophthalmic surgeon at the Rothschild Hospital and at the Blinden Institut auf der Hohen Warte. Among his more important writings are: 1. *Ueber Scheinbare Myopie* (Vienna, 1872). 2. *Ueber Syphilitische Augenkrankheiten* (Vienna, 1876). 3. *Ueber die Function der Längsfasern des Ciliarmuskel* (Vienna, 1878). 4. *Propaedeutik zum Studium der Augenheilkunde* (Vienna, 1887) American Encyclopedia of Ophthalmology, Vol.8, p.5968-5969.

Hocken, Edward Octavius (?-?) An ophthalmologist of Exeter, England, whose life dates are unknown. A pupil of Barnes and de la Garde, he was surgeon to the West of England Eye Infirmary from 1836 to 1839. His writings are as follows: 1. *A treatise on Amaurosis*. (London, 1840.) 2. *Injuries of the Eye*. (Lancet, XXXVIII,, p. 282, 1840.) 3. *Classification of Ulcers of the Cornea*. (Lancet, XXXVIII, p. 934, 1840.) 4. *Amaurosis from Hysteria*. (*Edin. Med. Jour.*, 1842, pp. 49-69.) 5. *Hyperaemial Amaurosis*. (*Edin. Med. Jour.*, 1842, pp. 324355.) 6. *Essays on Diseases of the Eye*. (Lancet, XLV, 678, 721, 1847.) American Encyclopedia of Ophthalmology, Vol.8,p.5968.Albert.BMC

Hodgson, Joseph (1788-1869) English surgeon of Birmingham, England, who devoted considerable attention to diseases of the eye. Born of indigent parents at Penrith, Cumberland, in 1788, he proceeded to London at a very early age, and there began to study medicine at St. Bartholomew's. Pagel relates that, on a very eventful evening, Hodgson lost at cards twenty pounds out of a hundred which had been presented to him by an uncle. Seeing the error of his ways, he afterwards became a most diligent student and highly moral man. In 1811 he won the Jacksonian prize for his "*Essay on Diseases of the Arteries and Veins*," which was in 1815 published in London in book form. Later, it was published at Hanover in Germany (1817), at Paris in French (1819), and at Milan in Italian (1823). At first Hodgson practised in Chelsea, then at Cheapside. In 1818, however, he settled in his native city, as surgeon to the Birmingham General Hospital and the Birmingham Eye Infirmary. In the former institution he was active for thirty years, in the latter for a short time only. He seems to have written nothing on the eye, although he devoted much attention to ophthalmic diseases in his practice. Because of failing health, including the blindness of one eye, Hodgson retired in 1848 from active work of every

kind, and moved to London, where he lived in retirement. He never ceased, however, to take an interest in the progress of ophthalmology. American Encyclopedia of Ophthalmology, Vol.8, p.5969

Hoeve, J. van der (1878-1952) Dutch ophthalmologist. Van der Hoeve was one of the leading figures in ophthalmology during the first 50 years of the 20th century. He graduated at Leyden University in 1900 when he became assistant to Professor Koster. In 1913 he was appointed Professor of Ophthalmology at the University of Groningen, and in 1918 he assumed the Chair of his old school in Leyden where the greater part of his life's work was done. His original contributions to ophthalmology during his long professional life were immense and continuous, and were recognized not only in his own country but throughout Europe. In Great Britain he held an honorary degree of the University of Edinburgh and was a recipient of the Sir William Mackenzie Medal for ophthalmic research. His Bowman Lecture in 1932 on *Ocular Movements*, a subject on which he wrote his doctorate thesis in 1902, will always remain classical. The breadth of his clinical interests and his unique ability to co-ordinate scattered observations were demonstrated by the fact that in the same year, in delivering the Doyne Memorial Lecture, he introduced the conception of "*phakomatosis*", thereby integrating a number of syndromes characterized by their congenital origin, their hereditary incidence, and their widespread symptomatology in various parts of the body. His erudition outside the confines of his specialty was recognized by his being elected President of the Physical Section of the Royal Dutch Academy of Science in 1932. Van der Hoeve was probably known best for his influence in the international aspects of ophthalmology. A traveller to many lands and a welcome visitor in each, he was mainly responsible for the re-establishment of international relationships in ophthalmology after the disruption of the first World War, so that it was natural that in 1929 the first post-war International Congress should have been held in Holland under his chairmanship. At that time he was in the prime of his life and with his facility in languages, his genial courtesy, his unusual erudition, and his organizing ability, he stood out among his contemporaries as the universally acclaimed leader of his profession. Since that time his activity in international affairs and his immense capacity for making and maintaining friendships, as well as his professional excellence, progressively endeared him to a multitude of friends throughout the world, and these qualities were reflected in his being received into the honorary membership of some twenty national societies. In his later years, when physical frailties curbed his activities, he lost none of his endearing qualities. BJO 1952,36:399-400

Hofmann, Moritz (1622-1698) German anatomist, surgeon and botanist chiefly remembered as the discoverer of the pancreatic duct, and of some (slight) ophthalmologic importance, because of his "*Diss. de Lacrymis*" (Altdorf, 1662). Born in Mark, Brandenburg, he studied at Altdorf, Padua, and again at Altdorf, where, in 1645, he received the degree of Doctor in Medicine. Settling in Altdorf, he there became, in 1648, Professor Extraordinary for Anatomy and Surgery and, in the following year, Full Professor of Medicine. In 1653 he was given also the chair of Botany. American Encyclopedia of Ophthalmology, Vol.8, p.5969-5960.

Hogan, Michael John (1907-1976) American ophthalmologist, professor of ophthalmology emeritus at the University of California, San Francisco. Born in Kemmerer, Wyoming, Michael Hogan spent most of his early life in Wyoming and Utah. He received his bachelor's degree from the University of Utah in 1930 and his medical degree from Cornell University in 1932. Following an internship in Patterson, New Jersey, and a general surgery residency at Bellevue Hospital, New York City, Hogan entered the practice of general surgery in San Diego in 1935. Three years later he closed his practice and began an ophthalmic residency at the University of California under the late Professor Frederick C. Cordes whose guidance and encouragement in the field of academic ophthalmology were to be important factors in Hogan's later life. Following his residency, Michael Hogan took additional fellowship training at the Illinois Eye and Ear Infirmary in Chicago and at Columbia University's Institute of Ophthalmology in New York City. Returning to the University of California, San Francisco, in 1941 as a clinical instructor of ophthalmology, Hogan began what was to become one of the most significant ophthalmic careers in American history. His interest in pathology put him on the pathway to important discoveries in the fields of uveitis and ocular oncology. Particularly significant are his

contributions to studies of ocular toxoplasmosis, chronic cyclitis, and uveitis associated with inflammatory joint diseases. His interest in anatomy led him to pioneering studies on the ultrastructure of the eye in both health and disease. His book, "*Histology of the Human Eye*," has now become one of the classics in ophthalmology. It is, however, no less important than his earlier textbooks, "*Ocular Pathology*," which had three editions, and Ocular Toxoplasmosis (1951). Of the many positions that he held, his directorship of the Francis I. Proctor Foundation for Research in Ophthalmology from 1951 to 1959 and his chairmanship of the Department of Ophthalmology at the University of California from 1959 to 1975 are probably the most significant. He served on the editorial boards of *American Journal of Ophthalmology*, *Archives of Ophthalmology*, and *Investigative Ophthalmology*. He contributed greatly to the activities of the American Ophthalmological Society, the Association for Research in Ophthalmology, and the Association of University Professors of Ophthalmology, on whose Board of Trustees he served as chairman in 1970. He was a member of Verhoeff Society (formerly the Ophthalmic Pathology Club) and a trustee of both the Heed Foundation and the Ophthalmic Publishing Company. AJO 1977,83:133-135

Hogg, Jabez (1817-1899) British ophthalmologist of London, England. He studied at Charing-Cross Hospital, London, and became a member (M.R.C.S.) of the Royal College of Surgeons of England in 1850. He was, for a long time, Consulting Surgeon to the Royal Westminster Ophthalmic Hospital, Surgeon to the Bloomsbury Eye Hospital, and to the Royal Masonic Institution. His chief ophthalmologic writings are: 1. *The Ophthalmoscope; its mode of application explained* London 1858, 2nd edition 1859 (The first monograph on ophthalmoscopy in English language). 2. *A Manual of Ophthalmoscopic Surgery* London 1863. 3. *A Parasitic or Germ Theory of Disease: the Skin, the Eye, and Other Affections* (1876). 4. *Cure of Cataract and Other Eye Affections* (1878, 3rd edition 1882). 5. *Cataract and its treatment* etc. London 1869. 6. *Impairment, or loss of vision from spinal concussion, or shock* London 1876. 7. *The microscope, its history, construction, and applications* London 1854, 6th edition 1867, new edition 1883. 8. *A practical manual of photography*, 5th edition was 1856. 9. *Skin diseases, an inquiry into their parasitic origin, and connection with eye affections*, etc London 1873, 2nd edition under altered title in 1876 (Nr.3). American Encyclopedia of Ophthalmology, Vol.8, p.5970. Albert.BMC

Hoin, Jean Jacques Louis (1720-1772) French surgeon of considerable importance in ophthalmology. Born at Dijon, he became surgical externe at the Dijon Grande Hopital and a Fellow of the Dijon Academy. He contributed much to our knowledge of after-cataract, of the structure of the crystalline lens, and of cataractine pathology. His chief ophthalmologic writings are: 1. *Lettres Concernant quelques Observations sur Diverses Espèces de Cataractes*. (*Mercur de France*, August, 1759.) 2. *Seconde Lettre A M. Daviel sur la Cataracte Radiée, la Convexité du Chaton du Crystallin, etc.* (Ibid. March, 1760.) 3. *Essai Historique sur les Différentes Opinions Concernant la Nature de la Cataracte*. (Ibid., Dec., 1764.) 4. *Observ. sur l'Extirpation de l'oeil*. (*Mem. de l'Acad. Royale de Chir.*, T. III) American Encyclopedia of Ophthalmology, Vol.8, p.5971

Holden, Brian Anthony (1942-) Australian Optometrist, Professor of Optometry at the University of New South Wales, founder and Director of the Cornea and Contact Lens Research Unit (CCLRU) at the School of Optometry, University of New South Wales, and Director of the Cooperative Research Centre for Eye Research and Technology (CRCERT). He graduated Bachelor of Applied Science from the University of Melbourne in 1964 and gained his PhD from City University (London) in 1971. He was awarded the Honorary Degree of Doctor of Science, honoris causa by the State University of New York in 1994, and a further Honorary Degree of Doctor of Science in 1999 by the Pennsylvania College of Optometry for his outstanding contributions to science and education. He was appointed Lecturer in the School of Optometry, University of New South Wales in 1971, and promoted to Senior Lecturer in 1975, Associate Professor in 1985 and Professor in 1990. In 1976 he founded the Cornea and Contact Lens Research Unit which has developed into the world's largest contact lens research centre. He was instrumental in the conception of the Cooperative Research Centre for Eye Research and Technology, and in 1991 was appointed foundation Director of CRCERT. He has held numerous academic, professional and university appointments. He was a co-founder of the International

Association of Contact Lens Educators (IACLE) in 1979, Vice-Chairman in 1979-1991 and President from 1991-1999. He was the Founding President-elect at the establishment of the International Society for Contact Lens Research (ISCLR). He served as President of the Society in 1982-1984 and continues as an Executive Member. He is a co-founder and Member of the Management Committee of the International Centre for Eyecare Education (ICEE). He is Founder of the Optometric Vision Research Foundation, being President from 1973-1982 and Founding Director of the Institute of Eye Research, Foundation Chairman of the International Centre for Eye Care Education and Chairman of the Board of Management of Vision Care NSW. He is a member of the Editorial Board of a number of scientific publications including *Cornea* and *Ophthalmic and Physiological Optics*. He is active in international education and research. His research has been in the area of ocular health with contact lenses and other forms of vision correction. His research showed that long term hypoxia caused by contact lenses resulted in corneal damage, and set the benchmark for the oxygen permeability of lenses to maintain ocular health. He is the author of over 150 refereed papers, including: Holden BA, Mertz GW, McNally JJ, *Corneal swelling response to contact lenses worn under extended wear conditions*, Invest Ophthalmol Vis Sci 24: 218-226, 1983; and Holden BA, Mertz GW, *Critical oxygen levels to avoid corneal edema for daily and extended wear contact lenses*, Invest Ophthalmol Vis Sci 25: 1161-1167, 1984. He has also made major contributions to international eyecare education through IACLE and ICEE. He has received two major Australian awards (the HB Collin Research Medal and the Kenneth W Bell Medal), and three prestigious international awards, (the Ruben Gold Medal, the Glenn A Fry Award, and the British Contact Lens Association Medal), for his outstanding contribution to optometric research and education. He received the Fulbright Senior Scholar Award in 1982 and was a Foundation Member of the Australian Fulbright Association. He received the Medal of the Order of Australia from the Australian Government for contributions to eyecare research and education in 1997. (SM)

Holland, Henri (Sir Henry) Tristram (1875-1965) British physician, one of the great medical missionaries of all time. It is said that more than 100,000 natives from India and Pakistan have had their sight saved or restored by means of his skill and devoted attention, during his long life. He had numerous American friends and admirers, many of whom have had the privilege of visiting and working in his eye hospital at Shikarpur, Sind, once India now Pakistan. Here, for a period of about six weeks in January and February since 1911, when the "hospital" was built by a wealthy Hindu banker, Seth Hiranand, for Sir Henry, ophthalmic and often other forms of surgery, were performed by him, his assistants and about 150 visiting ophthalmologists from many parts of the world. During the "season" more than 1,200 cataract operations were performed, often a hundred a day, sometimes even two hundred. Sir Henry derived from a long line of churchmen on both sides. He was born in his grandfather Tristram's house, in Durham, England. His grandfather was a residentiary canon of Durham. Sir Henry says in his autobiography *Frontier Doctor*, (Hodder and Stoughton, 1958) "*His dignified house in the quiet cathedral close came to have a very special flavour for me.*" While still an infant, Sir Henry was taken to Riga in Lithuania, where his father was the English chaplain. When he was five his family returned to England and his father was appointed to the living of Cornhill-on-Tweed, Northumberland. His formal schooling began at the age of 11 years when he went to Durham school for one term. At the end of this time he entered his uncle's school, Loretto near Edinburgh. Here he said "the boys were trained in a Spartan régime." The windows could not be shut. "*Under each bed was what we called a 'sparrow' bath, a flat bath of cold water; each morning the boys had to sponge in that water, which in winter was icy cold.*". Sir Henry decided to become a doctor. (As he says, 'to avoid going into the Church.') He wanted to *serve God* whether in a profession or in business so he went up to Edinburgh University in 1894 to study medicine. His years here were happy and fruitful ones. His reminiscences of these days are delightful and often humorous. During his first year, however, and following a severe bout of influenza, he was advised to drop medical studies and take a long holiday. He went with his father to Nervi on the Riviera for six weeks. He was then surprised but delighted to be invited to accompany as his guest a rich Liverpool merchant, Mr. Stead, to America. His travels took him to New York, Charleston, South Carolina, Savannah, Gainesville and even to an Indian village called Hornosassa on the Gulf of Mexico, all places where Mr. Stead had business enterprises. On the way home

he was invited by Mr. Stead to become his American agent at a "staggering" salary. He turned this down to the chagrin of Mr. Stead, by saying *"I am sorry, but I am pledged to go abroad as a medical missionary."* He returned to his medical studies and threw himself into all of the evangelistic and missionary activities of the University. He became secretary and later president of the Christian Union. In 1899, he was graduated from Edinburgh and, instead of taking a house appointment (internship) in the Edinburgh Royal Infirmary (a decision that he always regretted), he became the travelling secretary of the *Student Volunteer Mission*. More or less pledged, by his membership in the Church Missionary Society, to go abroad as a medical missionary, sooner or later. The call came sooner than he expected and in March, 1900, he abruptly was on his way to his station in Quetta on the northwest frontier of India. He was often asked if he had done much ophthalmic work or any form of surgery before going out to the East. *"I have to confess,"* he says in his book, *"that I had no practical experience of any kind in any hospital! As a senior medical student I had hardly even pulled out a tooth or opened an abscess, for I could not bear doing anything which caused pain, and in those days most minor operations were still performed without an anesthetic. I therefore arrived in Quetta with no practical knowledge beyond that which I had acquired through my obstetric cases.... In fact I had to teach myself to a large extent, though for some months Dr. Summerhayes was able to help me before he left for furlough. I spent two or three hours a day working along side him in the hospital, learning something of surgical practice and technique."* The C.N.I.S. hospital in Quetta had been organized by Dr. S. W. Sutton in 1885. Dr Sutton was an ophthalmologist, a Moorfields' man, and soon the mission hospital was lopsided with eye patients. Holland through his predecessor, Summerhayes, was quickly initiated into eye surgery, and learned to perform the extracapsular cataract extraction. Then very soon, he heard of the work of *"Jullundur"* Smith of the Inthan Medical Service. Holland visited Smith and quickly determined to do the Smith technique of intracapsular cataract surgery from then on. *"My meeting with him in 1908 coincided with my first term in full charge of the hospital,"* he says. A year later Sir Henry was invited to meet with Seth Hiranand of Shikarpur at that place. This philanthropic Hindu banker had been paying the railway travel expenses of the poor eye patients of his area to Quetta and, because of the large number of these, had the idea of asking Holland to come to Shikarpur and work for a time there with all expenses paid. Shikarpur, a bigoted, almost fanatic and mostly Hindu city, lies about 200 miles south of Quetta in the Sind Desert and is on an old and formerly great caravan road from Central Asia through Afghanistan. In summer it is the hottest place in all of old India, the temperature during May and June may reach to 126° F. in the shade but, during the winter months, it can be dry, windy, dusty and very cold, particularly at night. The Seth put his private house, just outside the gates of the city, at Sir Henry's disposal, On December 5, 1909, Sir Henry came to Shikarpur with two companions. In three weeks they saw about 4,000 patients and performed over 500 operations, of which 203 were cataract extractions. When the time came to return to Quetta, the Seth begged them to return every year in the future. Sir Henry, fed up with having to operate *"in an open veranda filled with dust, often thoroughly dirty people, stirring up the dust as they came, to the accompaniment of the buzzing of swarms of flies,"* told Seth Hiranand that the place was not fit for eye surgery. If, however, the Seth would build a small hospital with two operating rooms, out-patient waiting-room, etc, Sir Henry would return. The Seth agreed to build the hospital and, to pay all expenses for a period of 10 years even under the condition that Sir Henry and his staff were *"free to make known the, Christian message, to sell gospels-to use the evangelistic methods of a mission hospital."* This was a difficult decision for the orthodox Hindu to agree to. It was a courageous act, for he knew that the citizens of Shikarpur would be hostile to this evangelism. He refused to be intimidated and went on to build the hospital, having told his people, that *"if you can find someone who will do what this doctor can do for our People, without preaching, show me the man. If you cannot, why should you prevent this good work from being done among our people?"* So in January, 1911, fearful of a boycott by the Hindu natives, which did not materialize, Sir Henry and his team arrived in Shikarpur, formally opened the new hospital, preached the gospel, admitted the first patient and in two months had performed 1,320 surgical operations of which 563 were for cataract. Some 10,000 people listened, more or less respectfully, to the Word and nearly 1,000 copies of the gospels were sold. From then on, the Shikarpur eye hospital has functioned during its winter season every year except for one year when an outbreak of

plague hit Shikarpur. With the outbreak of World War I, Holland acted as chief medical officer for Baluchistan with the rank of lieutenant colonel in the Indian Medical Service after having served as civil surgeon in Sibi and Hyderabad. These posts were not so far away from Quetta and Shikarpur as to keep Sir Henry from doing some of his own mission work at both places when on leave, and with government permission. When the war ended in 1918, Sir Henry and his family (except for Harry who was sent to boarding school in England) moved to Kashmir where they stayed for two happy years. In the Mission Hospital at Srinagar, Sir Henry worked alongside of Ernest and Arthur Neve who had "*built up the reputation of the hospital in a wonderful way.*" Patients crowded into the hospital, coming from the entire Kashmir valley and beyond. In 1920, Sir Henry was called suddenly to operate on the Rajah of Shigar at his capital in Lesser Tibet. The trip was an arduous seven days journey on foot from Srinagar, through the "*Roof of the World.*" Shigar "*lies in the shadow of K? the second highest mountain of all.*" The description of this journey is a true medical saga and forms a most delightful chapter of wonderful adventure in Sir Henry's book. Both of the Rajah's eyes were operated upon at the same sitting, and everything went well. As was his custom, Sir Henry offered a prayer before the operations to which the Rajah assented, "*I am glad to say,*" Holland modestly remarked, "*that thanks to the prayers offered, he had a very successful result.*" One of the proudest accomplishments of Sir Henry was the establishment of a nurses training school, which began with great difficulty in getting recruits, both male and later female, because of religious differences. But these problems were in time surmounted and Sir Henry lived to see his dreams of numbers of trained nurses spread throughout all India and Pakistan. He received the Kaisar-i-Hind Silver Medal (1910), and the Gold Medal (1925) with a bar (1931): he was appointed a Companion of the Order of the Indian Empire in 1929 and a Knight Bachelor in 1936; finally in 1960 he (with his son, Dr. Ronald Holland) was awarded the Ramon Magsaysay Award in Manila, presented to those who have served their fellow men with distinction. Never was an award more merited. AJO 1966,61:806-814; BJO 1965,49:608

Holloway, Thomas B. (? –1936) American ophthalmologist of Philadelphia, Professor at the University of Pennsylvania. After an academic course Holloway entered medical studies at the University, receiving his degree in 1897. After serving an internship in the Philadelphia General Hospital he assisted in various departments of several other hospitals until 1902, when he became associated with the Ophthalmological division at the University Hospital, and from that time onward he devoted himself to that branch, working in company with Dr. →de Schweinitz, whose office-assistant he was for a number of years, and with whom he collaborated in several important papers and reports. He early sought opportunities to serve in important hospital positions, which included the Infirmary for Nervous Diseases, and the Wills Eye Hospital. From 1909 onward he contributed many papers and reports to the proceedings of the numerous societies and fellowships of which he was a member. On the retirement of Professor de Schweinitz in 1924, Holloway was elected to succeed him in the Medical School and served as Ophthalmologist to the University Hospital, which position he filled with distinction till his last illness. His membership included local, State, and National Medical Associations; the Ophthalmological Society of the United Kingdom and the Société Française d' Ophtalmologie. For a number of years he was occupied with the affairs of the American Ophthalmological Society: Secretary, Editor, member of Council, and, in 1932, President. His activities as an Ophthalmologist extended to the School for the Blind at Overbrook: the Society for the Conservation of Vision and that for the Prevention of Blindness; in the Councils of which his advice was sought and followed, as well as it was on the Committee for the International Congress held in Washington in 1922. BJO 1937,21:106-107

Hollows, Frederick Cossom (1929-1993) Australian ophthalmologist, born in Dunedin New Zealand. Hollows got training in New Zealand and in Wales under Archie Cochrane (a famous epidemiologist and political radical). Professor Hollows became famous for his early engagement for the Aborigines (these being recognized by the white community as being of the human race only in the 1960s) and for his creation of the first *Aboriginal Medical Service*. With the support of his professional colleagues and of Aboriginal activists he undertook the *National Trachoma and Eye Health Programme* to address the eye-health problems of Aborigines. That programme visited over 900 Aboriginal

communities, examined over 100,000 people and treated tens of thousands of them over four years. The collected data provided the basis for one of the largest most detailed and authoritative public-health studies ever done. He was promoted *Australian of the Year 1990*. He wrote, co-authored by Peter Corris, an auto-biography *Fred Hollows*, published in 1992. This book became a bestseller in Australia. NZ Med J. 1993, 106:168 ; Daily Telegraph 12 Nov 1993; MJA 1994, 160:7 ; JPW

Holmes, Christian Rastus (1857-1920) American ophthalmologist of Danish birth. Holmes was first mechanical draughtsman in Syracuse, N.Y. and later in Vincennes, IN., before studying medicine. He received his degree of M.D. at the Miami Medical College in 1886. He was first engaged in a general practice, but soon was employed as assistant by Dr. Joseph Aub. One year later Dr. Aub died, and Holmes took over the greater part of the practice of his former employer. Holmes was an excellent operator. He was ophthalmologist to the Cincinnati Hospital from 1888-99, Professor of Otology at the Miami Medical College from 1890-1904, Professor of Ophthalmology to the Laura Memorial Medical College and Presbyterian Hospital from 1892 until 1903, Professor of Otology in the College of Medicine of the University of Cincinnati from 1904 until 1920. AJO 3:307-309.

Holmes, Edward Lorenzo (1828-1900) A famous Chicago ophthalmologist. Born at Dedham, Mass., he received the degree of Bachelor of Arts from Harvard University in 1849. For a time he taught in the Latin School at Roxbury. In 1854 he received his medical degree at Harvard, and spent the following year as interne in the Massachusetts General Hospital, making a specialty of ophthalmology and otology. For further study in these subjects he proceeded to Europe, where he remained for a year and a half. Returning to America, he settled in Chicago, where he was almost immediately successful. Hardly a medical movement occurred in the State of Illinois in which, up to the time of Dr. Holmes's death, he had not a guiding hand. In 1858 he founded the Illinois Eye and Ear Infirmary at Adams and Peoria streets. In 1884 he was one of the founders of the Presbyterian Hospital. He was a trustee of Lake Forest University, a director in the Central Free Dispensary, a life member of the Illinois State Medical Society, and an honorary member of the Ophthalmological and Otological Societies. In 1860 he was appointed lecturer on ophthalmology and otology in the Rush Medical College. In 1867 he received the full professorship, a position which he filled with distinguished ability until his resignation in 1898 (31 years). He was President of the school from 1890-98, for a time he was editor of the *Chicago Medical Journal*. His contributions to ophthalmology and otology, both in that publication and in others, are numerous and valuable. American Encyclopedia of Ophthalmology, Vol. 8, p. 5980

Holmes, Gordon (Sir Gordon) Morgan (1876-1965) Irish neurologist who qualified in medicine in Dublin. He started research in neurology with Ludwig Edinger of Frankfurt, and throughout a full and busy life maintained that habit with a brilliance that has greatly enriched both neurology and ophthalmology. His professional life was spent primarily at the National Hospital for Nervous Diseases, Queen Square, London, but he was on the medical staff of Moorfields Eye Hospital and was Secretary of the Ophthalmological Society, (1912-15) and later its President (1936- 8). During the years between the two world wars he was one of the greatest clinicians and teachers in the English-speaking world. He may be said to have been the last of the great succession of neurologists at the National Hospital who, starting from Jackson and Ferrier, established English neurology, and ten of whom, including Holmes, became Fellows of the Royal Society. His research work, undertaken (as was most at that time) on his own resources and without financial support, included much of ophthalmological interest, particularly the effects of injuries to the visual pathways as observed during the First World War, and the role of the cerebral cortex in visual sensations. Brit. J. ophthal. 1966, 50:224

Holmes, William John (1911-1989) American Ophthalmologist of Hungarian origin. He immigrated to the United States in the 1920's and he received his MD degree from Rush Medical Center, and completed his Residency training at the Presbyterian Cook County Hospital in Chicago. He conducted research during the World War II and completed his thesis "*Night Vision Tests, Clinical Applications.*" He practiced Ophthalmology in Honolulu and served as a consultant for Tripler Army Hospital and for Hansen 's Disease



William Holmes

settlements in Hale Mahalu and Molokai. In 1958, he felt the need of an organization that united Ophthalmologists in the Asia-Pacific Region and founded together with Prof. G. deOcampo of Manila, the Asia-Pacific Academy of Ophthalmology in 1956 and served as the Secretary General until 1976. The Academy is now one of the major organizations of the International Federation of Ophthalmology, and serves for promotion of knowledge and skill of Ophthalmologists, for prevention of blindness and education of people. For his distinguished service, Dr. Holmes was granted the Jose Rizal Medal from the Academy in 1982. Holmes wrote: *Geographic Ophthalmology: Asia, Australia and Africa*, Springfield 1959. For the memory of his distinguished service, the Academy founded the HOLMES LECTURE to be delivered by an Ophthalmologist who conducted outstanding service for the prevention of blindness. (SM)

Holmgren, Alaric Frithiof (1831-1897) Swedish physiologist, of considerable importance in ophthalmology. He was born at Asen, Sweden and began the study of medicine at Upsala in 1850. His medical progress seems to have been considerably interrupted for, between 1850 and 1861, he became, successively, a teacher of the natural sciences at a school in Norrköping, a cholera physician, an assistant physician in a hydropathic institute at Söderköping, etc. In 1861 he received his medical degree at Upsala. He was at once appointed adjunct professor of theoretical and practical medicine in his alma mater. The next year, however, he received a commission to continue his education in experimental physiology in foreign countries, and, upon returning, to found a physiologic laboratory at Upsala. In accordance with this commission he studied from 1862-64 with →Brücke, →Ludwig, and →du Bois-Reymond. In 1864 he returned to Upsala and organized the physiologic laboratory above referred to the first of its kind in Sweden. In the same year he was appointed to the full professorship of physiology in Upsala University. In 1869 he studied for a time with →Helmholtz. Among his books, the following are of special ophthalmologic interest: 1. *Om färgblindheten i dess förhållande till jernvägstrafiken och sjöväsendet*. Upsala 1877. French edition: *De la cécité des couleurs dans ses rapports avec les chemins de fer et la marine*. Stockholm 1877. German edition: *Die Farbenblindheit in ihren Beziehungen zu den Eisenbahnen und der Marine* (Leipsic, 1878), American edition *Colour-Blindness in its Relation to Accidents by Rail and Sea*, Washington 1877. 2. *Metod att Objectivera Effekten af Ljnsintryck pa Retina*. 3. *Om Retinaströmmen*. 4. *Om färgblindheit och den Young-Helmholtz'ske Färgteorien*. 5. *Om Förster's Perimeter och Färgsinnets Topografi*. The Holmgren test for color-blindness became known all over the world. Holmgren died Aug. 14, 1897, at Upsala, of heart disease. See H.Cohn *Die Arbeiten des Herrn Professor Holmgren über Farbenblindheit* 1879 and Charles Roberts *The detection of Colour-blindness and imperfect Eyesight by the methods of Prof. Holmgren* 1881. Holmgren also edited *Skandinavisches Archiv für Physiologie*. American Encyclopedia of Ophthalmology, Vol.8, p.5981-5982.BMC.Albert.JPW

Holth, Soren (1863-1937) Norwegian ophthalmologist. Holth passed his medical qualification in 1891, and his M.D. degree in 1896, after having practised as an ophthalmologist in Drammen for about four years. His thesis: "*Die indirecte Starrblindheit des normalen Sehorgans und die Bedeutung derselben bei Gesichtfeld-untersuchungen*" and his deductions were based on the material he had collected in Drammen. He then settled down in Oslo after having passed about one year abroad at different European eye clinics. In this town he had his practice till he retired in 1934. For a period of six years he was first assistant at the University eye clinic and acted as *locum tenens* for Professor Hjalmar Schiötz when he was absent. When Professor Schiötz resigned, his chair was offered to Holth but this, he declined for health reasons. Through many repeated visits to foreign clinics Holth continued -even to his last years- at his studies. He also was invited to other Universities and clinics to demonstrate his own new methods of operating or to read papers about them. In this manner he went to Oxford, Helsingfors, Stockholm and, as late as 1932, to Budapest. His power of work was phenomenal. More than 110 of his scientific publications cover all branches of ophthalmology but his chief interest was his study of glaucoma. Here he has, in his iridencleisis operation, left himself a *monumentum aere Perennius*. As a curiosity of his immense operative practice may be cited the fact that, as far as is known, he was the only ophthalmological surgeon who had ever -with good result- performed a reclination operation for cataract on a living lioness. BJO 1937, 21: 669-670. AJO 21:79

Holthouse, Carsten (1810-1890) British London surgeon of considerable importance in ophthalmology, father of Edwin H. →Holthouse. Born in London, he studied first under a Yorkshire surgeon, then at St. Bartholomew's Hospital, and, in 1834, in Paris. In 1836 he settled as surgeon in London, where he resided and practised until his death. From 1840 till 1870 he was Instructor in Anatomy, Physiology, and Surgery at the Aldersgate Medical School and at the Medical School of Westminster Hospital. Holthouse's ophthalmologic writings are as follows: 1. *Six Lectures on the Pathology of Strabismus, and its Treatment by Operation, etc.* (London, 1854.) 2. *On Squinting, Paralytic Affections of the Eye and Certain Forms of Impaired Vision.* (London, 1858.) American Encyclopedia of Ophthalmology, Vol.8, p.5983

Holthouse, Edwin Hermus (1855-1949) British ophthalmologist. Born at Smyrna on 18 November 1855, the second son of Carsten Holthouse, F.R.C.S., and Agnes Cowcher Kent his wife. Carsten Holthouse was serving in the Civil Hospital there during the Crimean War; he was then assistant surgeon, and afterwards surgeon and consulting surgeon to the Westminster Hospital. He was educated at Westminster School and Trinity College, Cambridge, of which he was an exhibitor, and took second class honours in the Natural Sciences Tripos 1878. He received his medical training at King's College Hospital, served as house surgeon there, and was clinical assistant at Moorfields. He qualified in 1881, and took the Fellowship in 1884 on the same day as John Bland Sutton, William Job Collins and R. Lawford Knaggs. He was surgeon to the St Pancras and Northern Dispensary, and later to the Western Ophthalmic Hospital, to which he was elected consulting surgeon on his retirement. Holthouse wrote *Convergent strabismus and its treatment, an essay.* London, 1897. After retiring he became an authority on medieval history. One of his published papers was *The Emperor Henry II, 1002-1024 A.D.* Cambridge Medieval History, 1922, 3, 215-252: Chapter 10. He earned following titles: M.R.C.S. 21 January 1881; F.R.C.S. 12 June 1884; B.A. Cambridge 1878; M.A. 1882; M.B. 1883. The Times, 5 January 1949

Homans, John (1836-1902) American general practitioner of Boston, Mass., who paid considerable attention to ophthalmology. Born in Boston he received the degree of Bachelor of Arts at Harvard University in 1858, and his medical degree from the same institution in 1862. Serving for a time in the Civil War as assistant surgeon, he settled for practice in Boston and was very successful. He devoted much attention to ophthalmology, but at no time wholly relinquished general practice. He was president of the Massachusetts Eye and Ear Infirmary, and a member of numerous medical societies, both general and special. American Encyclopedia of Ophthalmology, Vol.8, p.5985

Home, Everard (1756-1832) British anatomist and surgeon, born at Hull, England. Home studied under John Hunter at St. George's Hospital, London, succeeding there Hunter as lecturer on anatomy from 1792 to 1827. From 1827 until his death he was surgeon to Chelsea Hospital. He wrote: *The Croonian Ucture on the adjustment of the eye to see objects at different distances.* London 1796, *An account of the orifice in the retina of the human eye, discovered by Professor Soemmerring* London 1798.

Honda, Yoshihito (1939-) Japanese ophthalmologist, Professor and Chairman of the Department of Ophthalmology and Visual Sciences of Kyoto University, Graduate School of Medicine. He graduated from Kyoto University in 1965, studied ophthalmology in the Graduate School of Medicine of the University under Prof. →KISHIMOTO Masao and completed its course in 1973. He submitted his thesis that year to Kyoto University (*Studies on the electrical activity of the mammalian retina and optic nerve in vitro I. Factors affecting activity of the retina.* J. Jpn. Ophthalmol. Soc. 73: 1865, 1969; II: *The mode and site of action of iodoacetic acid upon the in vitro preparation of rabbit's retina.* ibid. 74: 302, 1970; III: *The effects of acetylcholine upon the ERG of rabbit's retinas in vitro.* ibid. 75: 1164, 1971), and he received his Doctor of Medical Sciences. For the excellence of these research works, he received the Shimizu Prize from the Japanese Ophthalmological Society (JOS) in 1970? He extended his research as a Research Associate and then as an Assistant Professor at Washington University, St. Louis, MO, U. S. A. during 1971-1973, and he published "The effects of diphenylhydantoin on the electroretinogram of rabbits. Invest. Ophthalmol. Vis. Sci. 12: 567, 1973". On homecoming, he was promoted to the Lecturer (1974), and then he was promoted to the

Professor and the present position in 1985. He serves also as the Professor of the Graduate School of Medicine since 1995 and the Director of the University Hospital since 1997. He has served the Japanese Ophthalmological Society (JOS) as a Councillor (1985-), Chief-Editor of the JOS Journal (1987-1989), Board of Directors (1987-1999) and the President of the JOS (1999- present). He also serves as Director of Vitreoretinal Society of Japan (1985-), Executive Directors of Japanese Society of Neuro-ophthalmology (1985-), Japanese Society of Ophthalmic Surgeons (1985-), Japanese Society of Clinical Electrophysiology of Vision (1987-), Japanese Society of Ocular Pharmacology (1987-). For International Organizations, he is the Vice-President of the International Society for Eye Research (ISER) (1996-), and a member of the Association for Research in Vision and Ophthalmology, International Society for Clinical Electrophysiology of Vision. He has been interested in the development of biomaterial in Ophthalmology, pathophysiology in retinal ischemia, growth factors in the eye and many fields in Ophthalmology, and some examples of recent publications are "*Dual actions of nitric oxide in N-methyl-D-aspartate receptor-mediated neurotoxicity in cultured retinal neurons*. Brain Res. 711: 93, 1996" and "*Hypoxia and vascular endothelial growth factor selectively up-regulate angiopoietin-2 in bovine microvascular endothelial cells*. J. Biol. Chem. 274: 15732, 1996". He also received the JOS Award and delivered the Award Lecture to the 100th Congress of the JOS in 1996 (*Cellular and molecular biology of ischemic retina*. J. Jpn. Ophthalmol. Soc. 100: 937, 1996). (Department of Ophthalmology, Kyoto University Graduate School of Medicine, Syogoin Kawaramachi, Sakyo-ku, Kyoto 606-8507, Japan. phone: +81-7-5751-3248, fax: +81-7-5752-0933, e-mail: yhonda@kuhp.kyoto-u.ac.jp)(SM)

Hong, Soon Kak (1921-) Korean Ophthalmologist and Professor of the Department of Ophthalmology, Yonsei University College of Medicine. He graduated from Severance Medical College in 1944 and served as the Chairman of the Department of Ophthalmology, Yonsei University College of Medicine during the years 1961 to 1974. He was the President of the Korean Ophthalmological Society from 1970 to 1972 and was the Director of the Yonsei Cancer Center during 1973 to 1974. Some examples of his many publications are "*Ocular signs due to hornet sting*. Kor. J. Ophthalmol. vol 1(1) 1958.", "*Refractive error incidence in primary school children*. Kor. J. Ophthalmol vol 16(1) 1975."(SM)

Hong, Suk Hoo (1883-1940) Korean Ophthalmologist and Professor of the Severance Union Medical College. He was one of the first 7 graduates of the Severance Union College of Medicine (1908), and he became one of the 7 medical doctor who received the first licence from Korean Government. He established the first Ophthalmology Clinic in Korea (1908). He served as the Chairman of the Department of Ophthalmology and Otorhinolaryngology at Severance Union Medical College (1908-1922, 1928-1930). He completed his fellowship involving the anatomy of the head and neck at the Kansas Dental College and New York Medical College (1921-1922). He served as a Vice-Dean of Severance Union College of Medicine. He established the Eye and ENT clinic at the YMCA building in Chong-no, Seoul (1931).(SM)

Hong, Young Jae (1946-) Korean Ophthalmologist, Professor of the Department of Ophthalmology, Yonsei University Medical College. He graduated from Yonsei University Medical College in 1971, studied Ophthalmology under Prof. CHOI Ouk and received Doctor of Medical Sciences in 1978 (thesis: *The experimental study of oculomotor dysfunction -The properties of the vertical saccadic system in humans*. Yonsei Med J 10:299-308, 1977). He studied in 1986-1988 at the Kresge Eye Institute, Wayne State University, Detroit, with Prof. Dong H. Shin and published 19 articles with him in these 2 years, e.g. "*Implantation of posterior chamber lens in the absence of capsular and zonular support*. Arch Ophthalmol 106:416-420, 1988." and "*Reversal of glaucomatous optic disc cupping in adults patients*. Arch Ophthalmol. 107:1599-1603,1989. He served as the Chairman of the Department of Yonsei University Medical College from 1990-1995 and has been in the present position since 1992 and conjointly he serves as the Head of the Glaucoma Service. He is the leading Glaucoma specialist in Korea and some examples of his publications are "*The prevalence of Glaucoma in Korean adults*. Invest. Ophthalmol. Vis. Sci. 34:1286, 1993" and "*Chemical analysis of aqueous humor in patients with cataract and glaucoma*. Glaucoma 16: 18, 1994". He serves as the President of the Third Congress of Asia Oceanic Glaucoma Society to be held in Seoul in 2001.(Department of

Ophthalmology, Yonsei University Medical College, 134 Shinchon-Dong, Seodaemoon-ku, Seoul Korea; phone: +82-2-361-8450, fax:+82-2-312-0541, e-mail: yjhong0815@yumc.yonsei.ac.kr)(SM)

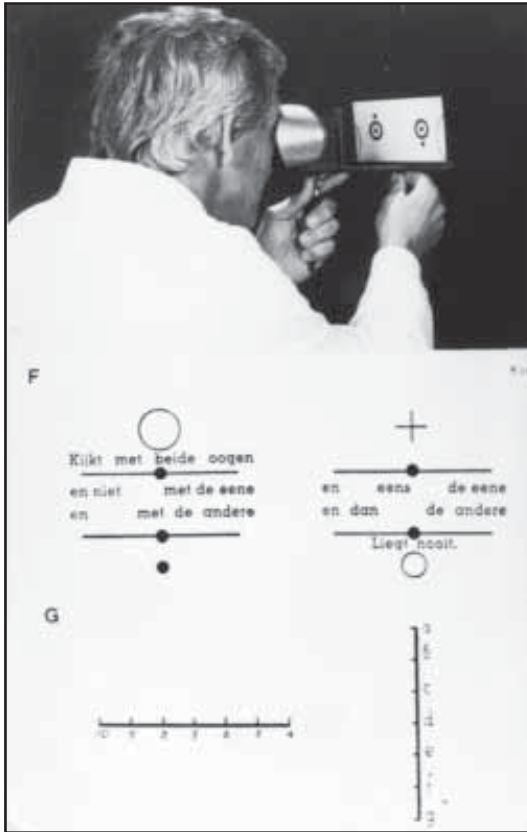
Honmura, Sachiko (1938-) Japanese female Ophthalmologist, Professor of Ophthalmology of Tsukuba University. She graduated from Tokyo Medical and Dental University in 1963, studied Ophthalmology at the Graduate School of Medicine under Prof.→OTSUKA Jin and received the degree Doctor of Medical Sciences in 1968. She is in the present position as above since 1985. Her research interest covers many areas of Ophthalmology and her many publications include “ *A new model of transient complete obstruction of retinal vessels induced by endothelin-1 injection into the posterior vitreous body in rabbits*. Graefe Arch clin. Exp. Ophthalmol. 231: 476, 1993” and “*Survey of risk factors for expulsive choroidal hemorrhage: Case reports*. Ophthalmologica 210: 344, 1996”. She is a Councillor of the Japanese Ophthalmological Society, Japan Society of Ophthalmological Optics. She is a member of the American Academy of Ophthalmology and the Association for Research in Vision and Ophthalmology. (Department of Ophthalmology, Institute of Clinical Medicine, University of Tsukuba, 1-1-1 Tennodai, Tsukuba-shi, Ibaraki-ken, 305-0006, Japan. phone: 81-298-53-3220, fax: 81-298-53-3214)(SM)

Hooke, Robert (1635-1703) One of the most ingenious of experimental English philosophers. He was born, the son of a minister, at Freshwater, in the Isle of Wight. In 1658 he entered the University of Oxford. Becoming assistant to Robert→Boyle, he rendered a great amount of service to that brilliant investigator in connection with his invention of the air-pump. Robert Hooke anticipated some of the most significant discoveries and inventions of his time, but was unable to implement them himself. He analyzed the role of air in combustion, but his most notable accomplishment was undoubtedly the improvement which he achieved in the design of scientific instruments. His many triumphs include not only his formulation of the theory of elasticity. He was also a pioneer in the field of microscopic research and discovered plant cells. It was Hooke who invented the term “cell” in a biological context – a concept that has gained fundamental importance in the life sciences since the 19th century. Hooke had many controversies with other scientists over questions of priority: Huygens and Newton are just two examples. In 1662 Hooke was appointed “*Experimenter*” to the Royal Society, and, in 1677, its Secretary until 1683. He is chiefly to be remembered by ophthalmologists as the first to measure (not to discover, see→Euclid) *the minimum visual angle*. The passage in which this great discovery is recorded is found in Birch’s “*History of the Royal Society*” (1757, III, p. 120) and runs as follows: “*If a graduated ruler be held at such a distance from the eye that the interval between any given division-mark- and the next appears under a smaller angle than one minute, then the sharpest eye can no longer discriminate the two marks from one another.*” On this great discovery is based a very large proportion of the daily work of every practising ophthalmologist. Hooke also invented the clock spring, the watch spring, and probably (the point is much disputed) the reflecting telescope. He wrote: *Micrographia, or some physiological descriptions of minute bodies made by magnifying glasses* London: John Martyn, 1667. He died of overwork at London, Mar. 3, 1703. American Encyclopedia of Ophthalmology, Vol.8, p.5998

Hooper, Robert (? – 1835) British London physician, medical lexicographer, and natural historian, who devoted considerable attention to ophthalmology. Born at London, he studied at Pembroke College, Oxford, and in 1805 received the degree of Doctor of Medicine at St. Andrews. Settling in London, he became physician to the Marylebone Infirmary, where he was very successful as well as in his private practice. Hooper is chiefly remembered for “*Hooper’s Medical Dictionary*” and “*The Physician’s Vade Mecum*.” His only ophthalmologic writing was “*A Diagram of the Human Eye: with Observations*” (1804). American Encyclopedia of Ophthalmology, Vol.8, p.6002

Hoor Karoly (1858-1927) Hungarian Ophthalmologist. Karoly Hoor was born and studied medicine in Pest. After his graduation in 1881, he entered the medical corps of the Austro-Hungarian army, and in 1884 he was posted to the army-hospital in Vienna. During his service-time in Vienna, he worked for two years in Fuchs’ clinic. Returning to Hungary in 1887 he was entrusted with the eye-department of the Army Hospital in Budapest. In 1890

he became a Privatdocent, and in 1894 was appointed to the Chair of Ophthalmology in the Kolozsvár University. 14 years later he was appointed to the newly established second chair of ophthalmology at the University of Budapest, and here he continued to work until the end of his life. In 110 scientific contributions he dealt with every branch of ophthalmology. He was particularly interested in the pathology and treatment of trachoma. To do research work in this field he spent a long time in Egypt. His name is associated with the first Hungarian "Ocular surgery" (*'Szemeszeti műtettan'*), published in 1892. In the same year appeared his handbook on the 'Troubles in Refraction and Accommodation' (*'A fenytoresi es alkalmazkodasi rendellenessegek'*) and also his 'Methods of Eye Examinations' (*'Szemvizsgalas modjai'*). The German edition of *'Prophylaxe und Beseitigung des Trachoms'* was published in Vienna in 1903 and *'Hornhauterkrankungen'* in Stuttgart. His monograph, *'Keratitis parenchymatosa'* was published in 1908. He was not only chief editor of Hoor-Grosz's: *'Handbook of Ophthalmology'* but also contributed several chapters to it. His handbook *'Szemeszet'* ('Ophthalmology') appeared in 1912. The chief labour of planning and building of the second eye clinic in Hungary was carried out under his leadership. [Magda Radnöt: *Famous Hungarian Ophthalmologists* (Budapest 1970)] Albert



Hooren's Stereoscopic plates

Hoorens, Antoine (1884-1960) Belgian ophthalmologist who practiced ophthalmology successively in Aalst and in Ghent. He studied pupil motricity with the Nobel Prize Winner Corneille →Heymans and presented with him a report on this subject in 1949 for the Belgian ophthalmological society. He pioneered in treatment of strabismus by means of his stereoscopic plates. He was an active anti-alcoholist. (Verriest)

Hope-Robertson, Walter James (1901-1958) New Zealand ophthalmologist. Hope-Robertson was born at Gisborne, NZ., and took his medical education at Otago University, graduating in 1922. Thereafter he became one of the first specialist house surgeons at Wellington Hospital. His apprenticeship completed, he travelled to England where he studied at Moorfields and the Central London Ophthalmic Hospital, and afterwards occupied training posts at Wolverhampton and Birmingham. At the same time he obtained his F.R.C.S.(Ed.), the D.O.M.S., and the D.L.O., London. In 1928 he returned to New Zealand, commenced practice in Wellington, and was immediately appointed to the honorary staff of the Wellington Hospital. During his life he remained in association with this institution and became eventually the chairman of the medical staff. He initially practised both ophthalmology and otolaryngology, but

from 1938 had confined his practice to ophthalmology, and rapidly became recognized as the senior exponent of this specialty in New Zealand. He was elected a Fellow of the Royal Australasian College of Surgeons in 1931, was one of the instigators in the formation of the Ophthalmological Society of New Zealand, becoming its president in 1956, and represented New Zealand at the XVI International Congress of Ophthalmology in London in 1950. In his own country he also played a prominent part in public activities, acting as consultant to the Health Department and, during the Second World War, to the New Zealand Armed Forces in the rank of Lieut.-Colonel. BJO 1958,42:256

Hopkins, Woolsey (1868-1900) American ophthalmologist of New York City, he died at the age of thirty-two. Born at Alexandria, Va., he received his professional degree from the College of P. and S. of the City of New York in 1890. He was assistant surgeon to the Manhattan Eye and Ear Hospital, and a member of the American Laryngological, Rhinological, and Otological Society. He practised ophthalmology and oto-laryngology in New York City for several years. American Encyclopedia of Ophthalmology, Vol.8, p.6002

Hoppe, Johann Ignaz (1811-1891) German physiologist. Hoppe was born in Erfurt and received his M.D. at Berlin in 1834; he lectured at Bonn from 1846 to 1852 and was professor at Basel from 1852 to 1891. His research concerned various aspects of sensory physiology. He authored: *Psychologisch-physiologische Optik in experimentell psycho-physischer Darstellung*. Leipzig 1881.



Manao Hori

Hori, Manao (1860-1929) Japanese Ophthalmologist, graduated from Tokyo University in 1887, continued his study at the Postgraduate School of Medicine at Tokyo University. He studied during 1883-1897 at the Universities of Giessen and Berlin. On his return to Tokyo, he was appointed the Professor at the Japanese Army Medical School. He developed a new Ophthalmoskiascope and published a paper: "*Gebrauchsanweisung fuer das Ophthalmoskiaskop nach Dr. M.Hori*". *Centralblatt Augenheilkd.* 18:371, 1894. The most significant of his many contributions is the 6-volume book that described *Ocular Injuries in the Russo-Japanese War: 1904-1905*. This is the most comprehensive description of war injuries of the eye, particularly of Ophthalmia Sympathica. CH. OGUCHI translated the statistics compiled in this book into the German Language: see →OGUCHI Chuta. He also served as the Head of the Eye Clinic of the Japanese Red Cross Central Hospital. He was the President of the Japanese Army Medical School in 1911-1912. Subsequently he retired and practiced in Tokyo: he served as the President of Tokyo Ophthalmologists Association. (SM)



Sadanao Hori

Hori, Sadanao (1888-1922) Son of Hori Manao. He graduated from Tokyo University in 1916, studied Ophthalmology under Prof. J.KOMOTO. He also studied at the Department of Pharmacology and submitted a thesis "*Physicochemical properties of the aqueous humor*" and received the degree Doctor of Medical Science from Tokyo University in 1922. From 1919 he worked as the Professor of Ophthalmology of Nihon University, but soon after the degree was conferred he died at the age of 35. (SM)

Hori, Sadao (1946-) Japanese Ophthalmologist, Professor and Chairman of Tokyo Women's Medical University. He graduated from Gunma University Medical School in 1972, studied at the Department of Pathology in the Postgraduate School of Medicine of the University and received his Doctor of Medical Sciences in 1976 (thesis: *An electron microscopic study on healing process of hypertensive arterial lesions in rat*. *Kitakanto Med. J.* 25: 201, 1975). He extended his research with Dr. Mukai Noritsugu on pathology of diabetic retinopathy at the Eye Research Institute of Retina Foundation (now Schepens Eye Research Institute) in 1976-1979. On his homecoming in 1979, he started Ophthalmology training at the Department of Ophthalmology of Tokyo University under Prof. →MISHIMA Saiichi and was promoted to the Lecturer of the Department in 1981. He moved to the Assistant Professor of the Diabetes Center of the Tokyo Women's Medical University in 1988, promoted to Professor of the Center in 1990 and he was appointed to the present position in 1998. He is the President of the Japanese Society of Ophthalmic Diabetology (1999-), Councillor of the Japanese Ophthalmological Society (JOS) (1995-), of the Japanese Society of Diabetology (1993) and on the Board of Trustees of the Japanese Vitreoretina Society (1994-). He is conducting extensive research on diabetic retinopathy and has 278 publications, and some examples are "*Pathophysiology of the intraocular neovascularization*. Special Report to the 94th Congress of JOS, *J. Jpn. Ophthalmol. Soc.* 94: 1103, 1990" and "*Diabetes and Ophthalmology*, ed. Hori, S., Aoi Medical Publ. Tokyo 1996". (Department of Ophthalmology, Tokyo Women's Medical University, 8-1 Kawada-cho, Shinjyuku-ku, Tokyo, 162-8666, Japan. phone: +81-3-3353-8111, ext. 37413; fax: +81-3-5269-8059)(SM)

Horiguchi, Masayuki (1956-) Japanese Ophthalmologist, Professor and Chairman of the Department of Ophthalmology, Fujita Health University. He graduated from Nagoya University in 1981, studied Ophthalmology under Prof. →AWAYA Shinobu, and received his Doctor of Medical Sciences in 1988 (*Increment of cone ERG during light adaptation-carp retina (in vivo and in vitro)* *J. Jpn. Ophthalmol. Soc.* 92: 395-402, 1988). He was appointed the Assistant Professor of Ophthalmology of Nagoya University in 1988, and subsequently he spent one year as a Research Fellow at the Institute of Ophthalmology (London), and carried out basic research on retinal horizontal cells in *Xenopus* with Prof. Geoffrey B Arden (Horiguchi M, Eysteinnsson T, Arden GB: *Temporal and spatial properties of suppressive rod-cone interaction*. *Invest Ophthalmol Vis Sci* 32:575-581, 1991). In 1998, he was invited to take the present position at the Fujita Health University as the Successor of Prof. Emeritus →MAJIMA Yoshinao. His research interest is in cataract, vitreo-retinal diseases, vitreous surgery, electrophysiology of vision, and he is member of Japanese Society for Clinical Electrophysiology of Vision, The Retina and Vitreous Society of Japan, Japanese Society of Ophthalmic Diabetology, and also member

of International Society for Clinical Electrophysiology of Vision, and Association for Research in Vision and Ophthalmology. Some examples of his many publications are “*Blue light-emitting diode built-in contact lens electrode? can record human S-cone electroretinogram?*” Invest Ophthalmol Vis Sci 36:1730, 1995” and “*Staining of the lens capsule for circular continuous capsulorrhexis in eyes with white cataract*. Arch. Ophthalmol. 116:535, 1998”. He received the Junior Honor Award from the Japanese Ophthalmological Society for excellence of his research (1993) (*Effect of temperature on electroretinographic readings during closed vitrectomy in humans*. Arch. Ophthalmol. 109: 11127, 1991), and also in 1997 he received the *Video Award* of the European Society of Cataract and Refractive Surgery. (Department of Ophthalmology, Fujita Health University, 1-98 Dengakugakubo, Kutsukake-cho, Toyoake, Aichi., 470-1101, Japan: phone: 81-562-93-2111, fax: 81-562-93-0533, e-mail: masayuki@fujita-hu.ac.jp) (SM)

Höring, Carl Friedrich von. German ophthalmologist, son of Friedrich →H., and nephew of Gottlob Friedrich →Höring. The dates of his birth and death cannot now be ascertained. He was born at Schwaigern, Neckarkreis, Württemberg, Germany. He studied at Tübingen, Würzburg, Prague, Vienna, and Berlin, and received his medical degree in 1845. Settling in Ludwigsburg, he began to devote his attention exclusively to ophthalmology. He founded in 1859 a Private Eye Infirmary, which was very successful. He was pensioned in 1882. He wrote: 1. *Mitteilungen aus der Augenheilkunde für den Prakt. Arzt.* (Stuttgart, 1877.) 2. *Bericht über die 25jähr. Wirksamkeit der Privat-Augenheilanstalt zu Ludwigsburg.* (Stuttgart, 1885.) American Encyclopedia of Ophthalmology, Vol.8, p.6003

Höring, Friedrich von (1792-1867) German ophthalmologist, brother of Gottlob Friedrich, and father of Carl Friedrich Höring. The subject of this sketch was born at Willsbach, near Weinsberg, Germany, the son of a surgeon who was well-known locally. He studied with an uncle for five years, then, for a very brief period, with Friedrich →Jaeger. In 1812 he became assistant to Köllreuter in Stuttgart. He then for a time was a student at Tübingen University, at which institution he received his degree in 1817. He next proceeded to Vienna, where he made a specialty of ophthalmology and became assistant to Friedrich →Jaeger and to Joseph →Beer. He then for a time, resided in Württemberg, but in 1823 removed to Neuenstadt, where he practised surgery and ophthalmology and remained for eleven years. He afterwards removed to Ludwigsburg, where he became a celebrated operator. He died 1867, having practised medicine almost fifty years. He wrote: 1. *Verunglückter Versuch, eine Kropfgeschwulst durch Unterbindung der Art. Thy. Super. zu Heilen* (Rust's Magazin, 1820). 2. *Über Myotomia Ocularis.* (Württem. Correspondenzbl., 1841.) American Encyclopedia of Ophthalmology, Vol.8,p.6003

Höring, Gottlob Friedrich (1813-1844) German ophthalmologist, brother of Friedrich, and uncle of Carl Friedrich, Höring. The subject of this sketch was born in 1813 at Willsbach, near Weinsberg, Germany, and in 1838 received his medical degree at the University of Tübingen. His dissertation on this occasion was entitled “*Über die Wirkungen des Broms*” [Bromine], and was crowned by the faculty. From 1830 to 1840 he studied with his uncles in Vienna. In 1841 he settled in Heilbronn, where he died. He wrote: 1. *Recherches sur le Siège et la Nature de la Cataracte.* (Ann. d'Ocul. VIII, 1842-3.) 2. *Über den Sitz und die Natur des Grauen Stars.* (Heilbronn, 1844.) 3. *Cysticercus de la Conjunctive.* (Ann. d'Ocul. II, 1839.) 4. *Über die Dislaceratio Capsulae.* (Württemberger Corr., 1841.) 5. *De l'Emploi de l'Appareil de Rotation Electro-Magnetique dans les Maladies de l'Oeil.* (Ann. d'Ocul., XVI, 1846.) 6. *Iritis Syph.* (Anna, l. d'Ocul., XXX, 1854.) American Encyclopedia of Ophthalmology, Vol.8,p. 6004.

Hornblass, Albert (1939-) American ophthalmologist, born in New York City. Hornblass received his B.A. at Yeshiva University and obtained his M.D. in 1964 with the thesis, “*Clinical Correlation in Ptosis both Acquired and congenital*” at the University of Cincinnati, College of Medicine and became resident (1965-1969) in ophthalmology at the State University of New York under Byron C. →Smith and Richard C. →Troutman. Hornblass became Director of the Department of Ophthalmic Plastic Surgery at the Manhattan Eye, Ear and Throat Hospital and is Professor of ophthalmology at SUNY Downstate N.Y. He wrote “*Oculoplastic, Orbital and Reconstructive Surgery*”, 2 volumes,

Baltimore 1988 and 1990, and authored *"Tumors of Ocular adnexa and Orbit"* (Mosby 1979). Hornblase is on the Editorial Board of *Ophthalmic Plastic-and Reconstructive Surgery*, his papers were published between 1970 and 1998 in *Ophth* and *AJO*. Today Hornblase works in New York City. He received a Honor Award in 1982 and a Senior Honor Award in 1993. His medical hobby is collecting old instruments and photography. Address: Albert Hornblase, M.D. , 130 East 67th St. Suite 1C, New York, NY 10021-6136. Fax:(201)489-1389 (AB).JPW

Horner, Johann Friedrich (1831-1886) The first professor of Ophthalmology in Switzerland, Horner is now remembered chiefly as the author of a brief paper in 1869 on ptosis due to a sympathetic palsy. This paper, not considered worth mentioning by Landolt in Horner's obituary is the source of the term "*Horner's syndrome*". Horner is also credited with discovery of corneal herpes, and, according to some introduced antiseptics

into ophthalmology. He was born in Zurich, and in 1854 received his medical degree there. He spent some time in Vienna and was influenced by the Jaegers to take up ophthalmology. He became an assistant to Albrecht von Graefe, and, for three or four months, he studied in Paris with Desmarres. In 1856 he returned to Zuerich as docent in ophthalmology, and, in 1862, when Billroth was appointed as Professor of Surgery, a separate chair was designated for diseases of the eye, and Horner got the job. Karl Wilhelm Zehender also trained with Jaeger and with von Graefe, and in 1857 they, with 13 other students of von Graefe founded what was to become the Heidelberg Ophthalmological Society and in 1929 renamed as the Deutsche Ophthalmologische Gesellschaft. When Zehender founded the *Klinische Monatsblaetter fuer Augenheilkunde*, Horner sent him most of his work. Horner was a cautious and able diagnostician, a very successful operator and a copious and interesting speaker. Despite his disinclination for literary labors, however, Horner did manage to perform considerable literary work. His more important writings are as follows: 1. *Zur Retinalerkrankung bei Morbus Brightii*. (Klin. Monatsbl. für Augenheilkunde, 1863.) 2. *Ein Fall von Periostitis Orbitae und Perineuritis Nervi Optici*. (Ibid.) 3. *Tumor Retinae*. (Ibid.) 4. *Fremde Körper in der Iris*. (Ibid.) 5. *Carcinom der Dura Mater: Metastase der Mm. Recti; Exophthalmus*. (Ibid. 1864.) 6. *Colobom des Augenlids mit Zahlreichen Dermoid geschwülsten*. (Ibid.) 7. *Eine Kleine Epidemie von Diphtherit. Conjunctivae*. (Ibid. 1869.) 8. *Zur Behandlung des Keratoconus*. (Ibid.) 9. *Ueber eine form von Ptosis*. (Ibid.) 10. *Tumoren in der Umgebung des Auges*. (Ibid. 1871) 11. *Ueber Herpes Corneae*. (Ibid.) 12. *Refractionsänderungen*. (Ibid. 1873.) 13. *Zwei Fälle von Trigemiuslähmung mit Secund. Augenaffectionen*. (Correspondenzbl. für Schweizer Aerzte, 1873.) 14. *Desinfic. Behandl. einiger*



Horner's very interesting autobiography edited by his friend E. Landolt

Hornhauterkrankungen. (Zehender's Klin.Monatsbl., 1874.) 15. *Ueber den Anatom. Befund bei Entzündl. Kapselcataract*. (Ibid.) 16. *Keratitis Mycotica*. (Ibid.) 17. *Ueber die Entstehung und Beschaffenheit des Pterygiums*. (Correspondenzbl. für Schweizer Aerzte, 1875.) 18. *Ueber Strabismus Converg. bei Myopie*. (Ibid. 1876.) 19. *Indicationen und Contraindicat. von Atropin und Calabar*. (Ibid. 1877.) 20. *Ueber Intoxicationsamblyopien*. (Ibid. 1878.) 21. *Ueber die Verbreitungswege der Sympathischen Entzündung*. (Ibid. 1879.) 22. *Die Krankheiten des Auges im Kindesalter*. (Gerhardt's Handb. f. Kinderkrankhh., Tübingen, 1880.) 23. *De la Myopie Congénitale*. (Revue Méd. de la Suisse Romande, Genève, 1881.) 24. *Die Antisepsis bei Augenoperationen*. (Internat. Med. Congress, Lond., 1881.) 25. *Über Brillen aus Alter und Neuer Zeit*. (Neujahrsbl. zum Besten des Waisenhauses in Zürich 1885, English edition: *On spectacles: their history and uses* London 1887) American Encyclopedia of Ophthalmology, Vol.8,p.6006-6008, see also his autobiography (edited one year after his death by E.→Landolt) : *Dr.J.F. Horner- Ein Lebensbild geschrieben von ihm selbst, ergänzt von Dr. E.Landolt*, Frauenfeld 1887; Ott, E. *Friedrich Horner 1831-1886 Leben und Werk* (=Zürcher Medizingeschichtl.Abhandlungen, Neue Reihe Nr.136) Zürich 1980; H.M.Huldrych Koelbing & Chr. Mörgeli: *Johann Friedrich Horner* Hans Rohr, Zürich 1986. Thompson, H.S. Am. J Ophth .102:792-795, 1986; JPW

Horner, William Edmonds (1793-1853) American physician, discoverer (in 1822) of "Horner's muscle, *i. e.*, the *tensor tarsi*, and the first to explain in a satisfactory manner the passage of the tears from the conjunctival sac to the nose. Born of English extraction at Warrenton, Fauquier County, Va., he received the degree of Doctor in Medicine at Philadelphia in 1814. For a time, he was a surgeon's mate in the U. S. Army; but in 1816 settled in Philadelphia. There he became prosector, in 1819 adjunct professor, and in 1831 titular professor of anatomy, in the University of Pennsylvania. In 1847 he founded St. Joseph's Hospital. For a time he studied in Europe. Returning to Philadelphia, he practised there until his death. Horner's only writings on the eye are those which deal with the muscle discovered by him. These which are three in number, are: 1. "*A Description of a Muscle connected with the Eye, lately discovered by W.E. Horner*" (The London Medical Repository," Vol. XVIII, No. 103, July 1, 1822 p.32.) 2. "*Description of a Small Muscle at the Internal Commisure of the Eyelids*" (Philadelphia Medical Journal, VIII , 1824) 3. "*An Inquiry into the Discovery of the Tensor Tarsi Muscle, being an Answer to the Objections of Signior Gaetano Flajani , of Rome*" (Philadelphia Medical Journal, IX, p.98 ff) American Encyclopedia of Ophthalmology, Vol.8,p.6008-6023

Horrocks, Jeremiah (1619-1641) This British scientist was an astronomer of remarkable genius, generally known as the first observer of the transit of Venus, an account of which phenomenon he has given in a Latin treatise entitled *Venus in Sole visa*. Newton, in the *Principia*, bears honorable testimony to the value of Horrocks astronomical work, especially commanding his lunar theory as the most ingenious yet brought forward. Hevelius printed the *Venus in Sole visa*, which first appeared in Germany, a translation of this work, with a memoir by Whatton, appeared at London in 1859. In 1678 Horrocks's fragmentary works were published under the auspices of the Royal Society, being edited by Wallis, with the title *Jeremiae Horroccii Opera Posthuma*. American Encyclopedia of Ophthalmology, Vol.8,p.6024.

Horstman, Karl (1847-1912) German ophthalmologist. Horstmann was extraordinary professor of ophthalmology in the University of Berlin. The Ophthalmoscope, 1912,p.181.

Hosack, David (1769-1835) An American physician, based in New York, who made only one contribution to ophthalmology. In 1794, as a 26 year old American doctor studying in England, he boldly stuck his oar into the question of how the eye was able to change its focus from far to near, thus "accommodating" vision to a close object. This had been discussed by William Porterfield, and Thomas Young had offered some thoughts on the subject before the Royal Society. Hosack was invited to present his paper to the Royal Society (Phil Trans Royal Soc. London, 84: 196-216). In this paper he suggested that when the eyes converged upon a near object, the muscles squeezed the globes, lengthening them and thus focusing the vision upon the near object. This turned out to be not the case, but by then Hosack had started a famous garden of medicinal plants (The Elgin Botanic Garden - the first in America) in New York City - near where Rockefeller Plaza is now; and before long he was a leader in New York's social and cultural life, and the controversial founder of what is now the College of Physicians and Surgeons of the Columbia-Presbyterian Medical Center. He later became a Fellow of the Royal Society. The complex mechanism of accommodation of the eye was eventually resolved by Helmholtz, long after Hosack was gone. (Stanley H.Thompson)

Hosaka, Akio (1926-) Japanese Ophthalmologist, Professor Emeritus of Asahikawa Medical College. He graduated from Tokyo Medical and Dental University in 1949, studied Ophthalmology under Prof.→OHTSUKA Jin and received the degree Doctor of Medical Sciences in 1955 (thesis: *Clinical studies of aniseikonia. Ochanomizu Med. J. 3: 325-374, 1955*). He served as the Assistant Professor of Fukushima Medical College under Prof. KAJIURA Mutsuo (1963- 1975). He was then promoted to the Professor and Chairman of the Department of Ophthalmology of Asahikawa Medical College in 1975 and served until retirement in 1992. His research interest has been in myopia and refractive anomalies, and he has many publications in this field. Some examples are "*The ocular findings in the premature infants, especially on the premature signs. Jpn. J. Ophthalmol. 7: 77, 1963*", "*Vitreo-retino-ciliary barrier in myopia, Jpn. J. Clin. Ophthalmol. 39: 569, 1985*" and "*Population studies – Myopia experience in Japan. Acta Ophthalmol. (Suppl): 66:37, 1988*". He wrote "*Immediate Assistance for Optical Problems.*

Kanehara Publ. Co. Tokyo, 1985". He served as a Councillor to the Japanese Society of Ophthalmology (1974-1992) and the Japanese Society of Visual Science (1965-1996), and is the Honorary Member of these Societies. He also gave lectures at the Second International Conference on Myopia (1987) (*The growth of the eye and its components – Japanese studies*. Acta Ophthalmologica (Suppl) 66: 65, 1988. (Hosaka Eye Clinic: 3-17-33, Mori, Isogo-ku, Yokohama 235-0023, Japan, phone/fax: 81-45-754-0888)(SM)

Hotz, Ferdinand Carl (1843-1908) American ophthalmologist of Chicago, Ill., inventor of the well-known *Hotz's operations for entropium*, ectropium, trichiasis and trachoma. He was born at Wertheim, Baden, Germany and he received his early education in the Lyceum at Wertheim, his medical training at Heidelberg (1863-66) and Berlin (1866-67). His medical degree was conferred at Heidelberg in 1865. The teachers who chiefly influenced him at Heidelberg were →Helmholtz, Simon, and →Knapp; at Berlin, →Graefe, Virchow, and Langenbeck. After a tour of study to Vienna, Paris, London, Edinburgh, Glasgow and Dublin, he came to America and settled in Chicago in 1869. He was ophthalmic surgeon at the Illinois Eye and Ear Infirmary from 1876 until his death. On the resignation by E. W. →Holmes of the chair of ophthalmology and otology in Rush Medical College Hotz was appointed in his place, and this position he held for many years. For a time he also occupied the chair of ophthalmology at the Chicago Polyclinic. Among his more important writings are: 1. *Ein Fall von Strabismus Deorsum Vergens in Folge von Congenitaler paralyse der Rect. Sup. geheilt durch Vorlagerung desselben*. (Archiv für Augen- und Ohrenheilkunde, Bd. V, Abth. 2, p. 379, 1876.) 2. *Two cases of Death Resulting from Aural Diseases*. (Transacts. of Ill.State Med.Soc., 1876.) 3. *Notes on Intraocular Lesions Produced by Sunstroke*. (Am. Journ. Med.Sciences, July, 1879.) 4. *Two Cases of Chronic Blepharospasmus as Traumatic Reflex Neurosis*. (Ibid., Oct., 1879.) 5. *Traumatic Aneurysm in the Eyelid, Following an Operation for Trichiasis*. (New York Med.Record, June, 1879.) 6. *Klinische Beobachtungen*. (Archiv für Augenheilkunde, X.) 7. *Eine Neue Operation für Entropium und Trichiasis*. (Ibid.) 8. *Die Ectropium Operation am Unteren Augenlid, Besonders bei Alten Leuten*. (Klin. Monatsblätter für Augenheilkunde, 1880.) 9. *Über das Wesen und die Operation der sog. Ptosis Atonica*. (Archiv für Augenheilkunde, Bd. I, 1880.) 10. *Die Frühzeitige Perforation des Warzenfortsatzes bei Otitis Media Purulenta, Complicirt durch Acute Entzündung der Warzenzellen*. (Zeitschr. für Ohrenheilkunde, IX.) 11. *Schlimme Folgen einer Calomel-Einstäubung ins Auge*. (Archiv für Augenheilkunde, 1882, IX.) For a time Hotz was associate editor of the *Chicago Medical Journal and Examiner*. American Encyclopedia of Ophthalmology, Vol.8,p.6053-6055

Hovius, Jacob (c.1675-1740) Dutch surgeon, born at Enkhuizen, Holland. The exact date of his birth as well as the place and date of his death, are unknown. He became doctor of philosophy, master of arts, and doctor of medicine, all at Utrecht. The date of conferring upon him of the last-named degree was June 13, 1702. On the reception of his medical doctorate, he presented a dissertation, entitled "*De Circulari Humorum Ocularium Motu*." Utrecht 1702. This created a considerable stir in the ophthalmologic world-as well it might, for, therein, were first announced, or accurately described, two very important matters: (1) The influx and efflux of the ocular humors as well as a (very inaccurate) means of measuring these fluxions; (2) The "circulus venosus" which is formed by the *venae vorticosae*. This dissertation was published at Leyden in 1716 (*Tractatus de circulari humorum motu in oculis ... in clarissimum ... Fredricum Ruyschium*. Lugduni Batavorum: Joannem Arn. Langerak, 1716.), and again in 1740. In 1715 he published an "*Epistola Apologetica in Vir.Cl. DD. Fredericum Ruyschium*". Hovius was one of the lesser opponents of the then new doctrine concerning the nature and seat of cataract. Throughout antiquity and the middle ages, and well on into the modern period, it was firmly believed that a cataract was a deposit of a 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 →Rolfinck, in 1656, confirmed his teaching by anatomical dissection. Then the matter simply sank into oblivion until →Brisseau and →Maître Jan, just after the beginning of the 18th century, re-discovered this most important truth and compelled the scientific world to accord it recognition. Before the recognition was accorded, however, a bitter controversy arose concerning the matter. The opposition to the new theory was led by Thomas →Woolhouse, an English oculist resident

in Paris. Among the followers of Woolhouse was Hovius. American Encyclopedia of Ophthalmology, Vol.8, p.6055

Howard, Henry (1815-1889) A well-known Canadian ophthalmologist, author of the *first* text-book on the eye to be issued in the Dominion of Canada. Born at Nenagh, County Tipperary, Ireland, he received his early education in his native town. He studied his profession in Dublin, receiving the degrees of M. D. and M. R. C. S., the latter in 1838. After practising in Dublin for a very short time, he emigrated in 1841, to Canada. For a time he engaged in general practice on Amherst Island, U. C. afterwards at Kingston. At length he moved to Montreal, where he practised the eye, ear, nose and throat exclusively, and where he was surgeon to the Montreal Eye and Ear Institution. From 1845 until his death he contributed a number of articles on the eye, ear, nose and throat to the *Dublin Medical Journal*. He also wrote at some length and rather frequently for the *British American Journal* of Montreal. About 1860 he wrote a brochure entitled "*The Physiology of Insanity, Crime and Responsibility*." In 1861 he was appointed medical superintendent of the Lunatic Asylum, of St. John's, L. C., later situated at Longue Pointe, Montreal, a position which he held until his death. The chief ophthalmologic writing of Dr. Howard was his justly famous text-book, entitled, "*The Anatomy, Physiology, and Pathology of the Eye*" London: John Churchill; Montreal: Armour and Ramsey 1850. In the preface to this work, the author says: "He [the author] has availed himself of the published opinions of the numerous distinguished writers who have explored the field of science in which he has labored; and he wishes in this place to state, not only his great obligations to them for the information which he has been enabled to derive from their writings, but also to express to those learned and respected friends who have contributed many valuable notes and suggestions, his sense of the service they have rendered to his inquiry; a service by which, in some instances, he has been enabled not only to enrich his work, but to confirm his own experience of the propriety of the treatment which he has successfully pursued; a treatment, which the author may be pardoned for stating, has not been suggested in any published treatise on the Pathology of the Eye which has come under his notice. "The peculiar treatment of the author's, thus indefinitely referred to in his preface, would seem to be that for cataract and glaucoma, which he thus describes, in the appropriate portions of the body of his book The little book of Henry Howard's constituted a very auspicious beginning for Canadian ophthalmography. American Encyclopedia of Ophthalmology, Vol.8, p.656-658

Howe, Andrew Jackson (1825-1892) American anatomist and surgeon. Howe was born near Worcester, Massachusetts, receiving his M.D. at the Worcester Medical Institute in 1855. From 1859 until his death he was professor of anatomy and surgery at the Eclectic Medical Institute, Cincinnati. He was the author of numerous surgical treatises. In ophthalmology he wrote: *Manual of Eye Surgery* Cincinnati 1874 (1879?). Albert.JPW

Howe, Lucien (1848-1929) American ophthalmologist. Howe was born at Standish, Maine. He graduated from Bowdoin in 1870, and studied medicine at Harvard, when Oliver Wendell Holmes was teaching anatomy there, and also at Bellevue. On completing his medical course he went abroad for further study. This was largely on the advice of a teacher who said to him: "*There is a man in Edinburgh named Lister, who thinks that fevers are caused by some sort of germ.. I think there may be something in it. I advise you to go over and see.*" He not only studied under Lister, but also in France and Germany, and in the clinics of Vienna. He was also at one time a student under Helmholtz. On his return to America he settled in Buffalo, New York, then a comparatively small but growing city. There he practiced ophthalmology for fifty years. In the beginning it was popularly considered a wild venture, as "*no one had trouble with their eyes,*" and when five patients appeared there was, in certain quarters, an uneasy feeling that there must be something uncanny about the strange young man. In 1876 he founded the Buffalo Eye and Ear Infirmary which, before his connection with it closed, had treated over 100,000 patients. This included the period before Buffalo's developing industries had brought the city the abundance of clinical material which it now has. The New York State Medical Society twice awarded him its medal for valuable original scientific work, and in 1927 he received the Dana medal of the National Society for the Prevention of Blindness, awarded for eminent work in that field. He himself established in the New York State Medical Society a prize for work in ophthalmology. Among foreign societies, he was a member of the

Deutsche Ophthalmologische Gesellschaft, the Société Française d'Ophthalmologie, the Ophthalmological Society of the United Kingdom, and the Royal College of Surgeons. His writings comprised a book on universal military education, a two-volume treatise on the muscles of the eye, and over one hundred scientific papers. He was recognized in this country and in Europe as one of the leaders in his branch of medicine. In 1926 Dr. Howe presented to Harvard University \$250,000 for the establishment of a laboratory of ophthalmology. This sum was increased to \$500,000 by donations from the General Education Board and from the corporation of Harvard, and the Howe Laboratory of Ophthalmology, with Dr. Howe as director, was established with its' headquarters at the Massachusetts Eye and Ear Infirmary. The influence of this foundation is even now to be felt in medicine, and is bound to increase from year to year. In it Howe has left to medicine a worthy memorial. Devoted specialist though he was, even living once with the Arabs in the desert in order to study the transmission of the ophthalmia of Egypt, he was a man of varied tastes. He wrote: *Universal Military Education and Service: The Swiss System for the United States*, London 1916; *The Muscles of the Eye*, 1907-1908 AJO 1929,12:145-147; JPW

Howe, Samuel Gridley The first American to devise (in 1830) an improved alphabet and to print literature for the sightless. American Encyclopedia of Ophthalmology, Vol. 8, p. 6058

Hoyack, Ernestus Fredericus (1826-1868) Dutch ophthalmologist of Amsterdam. Hoyack received his M.D. (his thesis was: *Specimen ophthalmologico-medicum inaugurale continens quaedam de choroiditide* [Antonii Rutgers, praeses.] Amstelodami, Apud C.G. van der Post, 1848) at Leiden in 1848, and after studying ophthalmology abroad for several years established a large practice in this specialty in Amsterdam. Albert.

Hoyt, William Fletcher (1926-) American Neuro-ophthalmologist, Professor Emeritus of University of California San Francisco. He graduated from the University of California School of Medicine in San Francisco in 1950, served 2 years as medical officer in the United States Navy and completed 3 years of Ophthalmology Residency in 1956 in San Francisco. He extended his studies as a Fulbright Scholar at the University of Vienna Eye Clinic in 1957, and then studied Clinical Neuro-ophthalmology with Prof. Frank B. Walsh at Johns Hopkins School of Medicine in Baltimore in 1958. He returned to the University of California in 1959 where he began his academic career as a Clinical Teacher of Neuro-ophthalmology with joint appointments at the Departments of Ophthalmology, Neurosurgery and Neurology. He became Full Professor in 1969 and Emeritus Professor in 1994. He has been awarded Honorary Membership in numerous ophthalmologic, neurosurgical and neurologic Associations in America and in other countries. Professional awards have included The Norman McAlister Gregg Medal in Australia (1975), The Franceschetti-Liebrecht Prize in Germany (1976), The University of Antwerp Medal in Belgium (1980), Honorary Doctor of Medicine from the Karolinska Institute in Stockholm, Sweden (1988), Patron of the Australian Neuro-ophthalmologic Society (1990), Foreign Adjunct Professor at the Karolinska Institute in Sweden in 1992. He has served on the Editorial Boards of the *Archives of Ophthalmology* (1961-1975), the *Archives of Neurology* (1977-), *Neuroradiology* (1978-1981), *Journal of Neurology* (1979-1985), *Neuro-ophthalmology* (1985) and *Journal of Neuro-ophthalmology* (1977-). For forty years he has lectured and presented clinical papers in America and abroad on a wide range of Neuro-ophthalmologic topics related to neurosurgical and neurologic diagnosis. With his co-workers he published over 280 journal articles in American and International Journals. He also contributed book chapters covering a wide range of Neuro-ophthalmologic subjects dealing with retina, optic disc, optic nerve, chiasm, lateral geniculate nuclei, occipital lobes, brainstem and cerebellar control of eye movements, ocular motor palsies, orbital disease and neuroimaging. These publications span 40 years. He co-authored two books: 1) with Beeston "*The Ocular Fundus in Neurologic Disease*" C.V. Mosby Co., St. Louis, 1966 and 2) with F. B. Walsh: "*Clinical Neuro-ophthalmology*" 3rd Edition in 3 volumes, Williams and Wilkins Co., Baltimore, 1969 (3000 pages). He has been a Clinical Teacher of a long stream of ophthalmology residents trained at the Department of Ophthalmology of the University of California. He has been the postdoctoral mentor of 70 ophthalmologists and neurologists who have become the professors teaching Neuro-ophthalmology in medical schools throughout the Americas, Europe and Asia. (Department of Ophthalmology, University of California, San Francisco. Rm. 521 U, San Francisco, California, USA 994143. Phone: +1-415-476-1130; e-mail: wfhoyt@AOL.com)

Hu, Cheng (1915-) Chinese Ophthalmologist, Professor Emeritus of Peking Union Medical College. He is a graduate of West China Union University, Chengdu, in 1944 and studied Ophthalmology at the University Hospital and was promoted to the Instructor of Ophthalmology at the University (1948-1949). He was then invited to Peking Union Medical College and served as Instructor (1950-1955), Associate Professor (1956-1978) and the Professor and Chairman of the Department of Ophthalmology (1979-1986). He is currently Honorary Director of Eye Research Center of the Chinese Academy of Medical Sciences (1984-) and the Vice-President of the Chinese National Committee for the Prevention of Blindness (1984-). He has served as an editor to many professional journals, and they are *Medical Digest of Ophthalmology* (Vice-Editor, 1960-1965), *Chinese Ophthalmologic Association* (Executive Editor, 1956-1988), *Chinese Journal of Ophthalmology* (Vice-Editor, 1979-1984; Chief Editor, 1985-1988), *Afro-Asian Journal of Ophthalmology* (1982-1990) and *System of Ophthalmology* (Vice-Editor, 1986-1996). He continues to serve as Honorary Consultant to the *Chinese Journal of Ophthalmology*, *Chinese Ophthalmologic Association* and to *Ma Jinmin Eye Center*. Some examples of his many original papers are "Prevention of blindness in China, Chin. Med. J. 1992, 105: 695", "Cataract free zone and primary health care approach to prevention of blindness in Shunyi County of Beijing. Chin. Med. J. 1996, 109: 561" and "The strategy of prevention of blindness. Eye Science, 1997, 13: 156". He also contributed chapters to many books, e.g. "Fundus diseases, *China Medical Encyclopedia*, Shanghai Science Technical Publ. House, 1985" and "Laser treatment of glaucoma and prevention of glaucoma in *System of Ophthalmology*, People Health Publ. House, 1996". In recognition of his outstanding contributions, he has been granted many Honor Awards, that embrace Distinguished Education and Research Award from the Ministry of Education (1984), Science Award from the Ministry of Health (1985), Distinguished Service Award from the Asia-Pacific Academy of Ophthalmology (1989) and Award from the International Agency for the Prevention of Blindness (IAPB)(1990) (Honorary Director, Eye Research Center, Chinese Academy of Medical Sciences, Peking Union Medical College Hospital, 1, Shuai Fu Yuan, Beijing 100730, P. R. China. phone: +86-10-65296357) (SM)

Hubais. A distinguished Arabian ophthalmologist, nephew of Hunain and one of his most devoted students. He completed Hunain's "*Book on the Questions of Medical Science*" and wrote "*The Book on the Improvement of Purgatives*," "*The Book of Simple Remedies*," and the "*Work on the Pulse*." According to Halifa, he composed a book entitled "*The Volume of Explanations of Eye Diseases*." The ophthalmologic book is remarkable only for the fact that it seems to have contained a number of illustrations-e. g., of pterygium and pannus and was, therefore, one of the very earliest of illustrated works upon the eye. This book, most unfortunately, is no longer extant. American Encyclopedia of Ophthalmology, Vol.8, p.6058

Hubbell, Alvin Allace (1846-1911) This well-known American ophthalmologist was born in Conewango, N. Y. He studied medicine at Philadelphia, Penna., and at the University of Buffalo, receiving his degree from the latter institution in 1876. In 1896 he received the honorary degree of Ph.D. from Niagara University. For a time he practised general medicine and surgery, and, in fact performed in 1878 the operation of laparotomy for intestinal intussusception for the fourth time in the United States. In 1883 he decided to limit his practice to ophthalmology and otology, and soon was known throughout the United States as an expert in these specialties. He became ophthalmic surgeon to the Riverside Hospital, the Buffalo Hospital of the Sisters of Charity, the Erie County Hospital (of which he was one of the founders), and of the Charity Eye, Ear, Nose and Throat Hospital of Erie County, of which he was one of the founders and directors. He was also one of the founders of the Medical Department of Niagara University, in which he became Professor of Ophthalmology and Otology and Secretary to the Faculty. In 1898 he accepted the chair of clinical ophthalmology in the University of Buffalo, a position which he held till 1911, when he was made Professor Emeritus. He was a member of the Buffalo Academy of Medicine, the Buffalo Medical Union, the Buffalo Ophthalmological Society, the Erie County Medical Society, the Medical Association of Central New York (of which he was President in 1892), the New York State Medical Association (of which he was President in 1902), the Medical Society of the State of New York, the New York Academy of Medicine, the American Medical Association (of whose section on ophthalmology he

was Chairman, 1908-09), the American Ophthalmological Society, the Pan-American Medical Congress, the Eighth International Ophthalmological Congress, held at Edinburgh in 1894, and of the Ninth, held at Utrecht in 1899. He was also a member of numerous historical and literary societies. Dr. Hubbell invented a number of instruments and appliances, the most important of which, perhaps, is an improved electromagnet for the extraction of attractable bodies from the interior of the eye. In addition to numerous journal articles he wrote one of the sections in de Schweinitz's *American Text-Book of Diseases of the Eye* (Philadelphia, 1899) ; also '." *The Development of Ophthalmology in America from 1800-1870*" (Chicago, 1908). He was associate editor of the *Buffalo Medical Journal* and of the *Ophthalmic Record*. At the time of his death he was engaged in writing a work on →Daviel. American Encyclopedia of Ophthalmology, Vol.8, p.6058-6060

Huber, Alfred (1918-) Swiss ophthalmologist and neuro-ophthalmologist. Huber received his medical degree in 1943 and became lecturer in ophthalmology in 1954. He was named professor of ophthalmology at Zurich University in 1963. He was councillor to the Zurich University Eye Clinic as well to the Neuro-Surgical Clinic of the same university. Huber worked with Vogt, Amsler and Witmer. He received the Franceschetti-Liebreich Prize in 1966 and the Alfred Vogt Prize in 1972. He worked closely with Krayenbuehl and then with Yasargil in the Neurosurgery Clinic in Zurich. He authored *Augensymptome bei Hirntumoren* Huber Bern 1956; *Eye Symptoms in Brain Tumors* 1961(translation by Stefan van Wien), '71 and '76 (translations by F.C.Blodi); *Sympathikus und Auge* 1990. Huber was co-author, with M. Amsler and Fl.Verrey of *L'Humour acqueuse et ses fonctions* 1955 and *Lehrbuch der Augenheilkunde*, 2nd edition 1954. He also wrote, with D.Kömpf, the important book *Klinische Neuroophthalmologie* which was published by Thieme Stuttgart in 1998. He published countless papers and book chapters (for example *The Eye* in Schinz, *Lehrbuch der Röntgendiagnostik*, vol.III,1966) and was editor of: *Ophthalmic Literature* from 1947 to 1972; *Kl. Monatsbl.f.Augenheilk.*; *Aktuelle Neurologie* and *Neuro-Ophthalmology*. Huber also published some work on eye movements in Graves disease and, with Esslen and others was responsible for some important electromyography of the extraocular muscles that for the first time explained the odd behaviour of the eyes in Duane's syndrome. Huber, A. Esslen, E., Kloti, R.; Martenet, AC, *Zum Problem des Duanes-syndrome*. Graefe's Archiv f. Clin Exp Ophthalmol 167:169-171, 1964. In 1976 Huber, together with Thomas R. Hedges, Jr. founded the International Neuro-ophthalmology Society (INOS) by putting on a meeting in LaNapoule, France. Address: Prof.Dr.med.A.Huber, Stockerstr.38, CH-8002 Zurich, Switzerland. JPW

Huber, Francis (1750-1831) Blind Swiss naturalist. He was born at Geneva, Switzerland, the son of a prominent soldier and natural historian, T. Huber, who was the author of a notable book, entitled, "*Observations sur le Vol des Oiseaux*" (Geneva, 1784). The subject of this sketch would seem to have been myopic even in childhood, and when only fifteen years of age, he became totally blind. Even before the onset of his blindness, he had shown a remarkable aptitude for natural history, and, when shut up in "the ever-during dark," his predilection rose to the point of an all-absorbing passion. His wife Marie Aimée was of great assistance to him in all his investigations. So, too, was his servant, Francois Burnens, who was trained by Huber to an almost marvellous power of observation. Huber even invented a glass bee-hive, through the walls of which his devoted helper could observe to a nicety the ways and works of his favorite bees. Huber published: 1. *Nouvelles Observations sur les Abeilles* (1792; Engl. trans., 1806; 2d French ed. 1814). 2. *Mémoire sur l'Origine de la Cire* (*Bibliothèque Britannique*, tome xxv). 3. *Lettre A M. Pictet sur Certains Dangers que Courent les Abeilles* (*Op. cit.* XX, vii). 4. *Nouvelles Observations rel. au Sphinx Atropos* (*Op. cit.*, XXVII). In addition to these independent compositions, Huber assisted Jean Senebier in his "*Mémoire sur l'Influence de l'Air, etc., dans la Germination*" (Geneva, 1800). Huber's name was given by De Candolle to a genus of Brazilian trees, Huberialaurine. Huber was a wealthy man from the beginning to the end of his career' After a long and happy life (for he was always cheerful and consented) he died at Lausanne. American Encyclopedia of Ophthalmology, Vol.8,p.6060

Hudson, Arthur Cyril (1875-1962) British ophthalmologist. Though comparatively little known outside his country or indeed his own teaching hospital, he was a man remarkable both for his professional merit and for his unusual personal qualities. Hudson was the youngest son of the vicar of Bingley, Yorkshire. He was educated at Rugby and Trinity

College, Cambridge, where in addition to taking an honours degree he played tennis for the University and it is said would have gained a rigger blue had he been of heavier physique. He entered St. Thomas's Hospital Medical School in 1899, having won the University Scholarship and qualified M.B., B.Chir. (Cantab.) in 1902; proceeding to M.D. in 1906 and F.R.C.S. (England) in 1905. He held general surgical as well as ophthalmic appointments at St. Thomas's before becoming House Surgeon at The Royal London Ophthalmic (Moorfields) Hospital where he was able to obtain unrivalled clinical and operative experience. His talents led to his appointment as Curator, then the recognized stepping stone to the staff, and during his tenure of this post he gained extensive experience of ocular pathology which was the basis of his sound judgment of eye diseases. During these early years he not only produced several careful and valuable publications but was largely responsible for improving aseptic methods in the operating theatres and greatly reduced the infectivity rate which resulted from eye operations in the early years of the 20th century. In 1913 he was appointed Honorary Surgeon to Moorfields and on the retirement of J. B. Lawford in 1915 joined Herbert Fisher at St. Thomas's Hospital, taking charge of the eye department in 1924 with P. G.→Doyne as his junior. He resigned from Moorfields at the early age of 53, partly to make way for a younger man, but continued at his undergraduate hospital until he reached retiring age in 1935. He was Vice-President of the Ophthalmological Society of the United Kingdom and in 1932-33, as president of the Ophthalmological Section of The Royal Society of Medicine, delivered the presidential address on cataract surgery. Hudson's work was meticulous and took no account of time. His careful examinations coupled with his knowledge of pathology established him as an outstanding clinician who seemed almost to live within the eye. To other London ophthalmic surgeons he was the first choice for second opinions on difficult problems and if he had a fault it was in persisting for too long in trying to improve a hopeless case. As an operator he was without doubt in the front rank, especially in cataract surgery, for he was an artist with the von Graefe knife. As a lecturer he was not very easy to follow because his voice did not carry and because he never used any form of illustration, though what he said was invariably sound if rather above the heads of some of his audience. To his post-graduate students he was the best teacher of his day because of the thoroughness of his examinations with the simple apparatus then available and his willingness to discuss problems fully. At one period no less than a quarter of the ophthalmic surgeons on the staff of London's teaching hospitals had been his House Surgeon at St. Thomas's, which is proof of the stimulus of his example and his influence on British ophthalmology. His publications were moderate in number but always carefully compiled and worthy of close attention, and his last paper on a stereoscope of his own design was published in his 80th year. -Hudson's line- perpetuates his name in ophthalmology. BJO 1962,46:575

Hueck, Alexander Friedrich (1802-1842) Russian anatomist, paleontologist and archeologist of some importance in ophthalmology. Born at Reval, he received the degree of Doctor in Medicine in 1826, his graduation thesis being. "Diss. inaug. Physiol.Med. de Mutationibus Oculi Interin Respectu Distantiae Rerum." After a scientific journey to Berlin, Munich, Göttingen and Paris, he settled in Dorpat, where, in 1830, he became Prosector at the Anatomical Institute of the University. In 1833 he was made Full Professor of Anatomy. He died not quite forty years of age. Hueck's ophthalmologic writings are as follows: 1. *Das Sehen, seinem Aeusseren Process nach Entwickelt.* (Dorpat and Göttingen, 1830.) 2. *Die Axendrehung des Auges.* (Dorpat, 1838.) 3. *Die Bewegung der Krystalllinse.* (Leipzig, 1841, 4 plates.) American Encyclopedia of Ophthalmology, Vol.8, p.6061. Albert

Hueter, Karl Christoph (1803-1857) German surgeon and obstetrician, who paid considerable attention to diseases of the eye. Born at Melsungen, Lower Hesse, he received the degree of Doctor in Medicine at Marburg in 1824. After a year or more of study in various foreign universities, he settled in Marburg, as Privat-Docent in Medicine, Surgery, and Obstetrics. Hueter's ophthalmologic writings are as follows: 1. *Ueber Ophthalmia Intermittens in Hinsicht auf ihr Vorkommen und den Zusammenhang mit dem Wechselfieber, etc.* (v. Graefe and Walther's Journ., vol. XII.) 2. *Ein Fall von Ophthalmia Intermittens mit Achttägigen Typus.* (Ibid., vol. XIII.) 3. *Die Katarrhalischen Augenentzündungen.* (Heidelb.Klin. Annalen, Bd. V, VI.) American Encyclopedia of Ophthalmology, Vol.8, p.6061

Huggins, William (Sir William) (1824-1910) An English astronomer, born in London. He was attracted to the study of chemistry, magnetism, and allied branches of physical science. Having in 1855 built for his own private use an observatory at Upper Tulse Hill, near London, he began the study of the physical constitution of stars, planets, comets, and nebulae. By researches on the sun's spectra and the spectra of certain comets, he ascertained that the luminous properties of the former are not the same as the luminous properties of the latter. Since 1875 he had been engaged photographing the ultra-violet parts of the spectra of the stars. He also determined the amount of heat that reaches the earth from some of the fixed stars. He was president of the Royal Astronomical Society (1876-78), president of the British Association (1891) and president of the Royal Society (1900). American Encyclopedia of Ophthalmology, Vol.8,p.6062

Hughes, Wendell L. (1900-1994) American ophthalmologist, considered the father of modern ophthalmic plastic surgery. Hughes was born Feb. 26, 1900. A graduate of the University of Western Ontario Medical School in London, Ontario, Canada, Hughes did his internship and residency at Bellevue Hospital in New York City from 1923 to 1925. He was a student of Drs. John Wheeler, Charles B. May, and Webb Weeks. He practiced in New York City and Hempstead, Long Island, from 1930 to 1968. He was attending chief surgeon at the New York Eye and Ear Infirmary. Among his many contributions, Hughes reported on his techniques of lower eyelid reconstruction in 1937. In 1943, he published his scholarly book, "*Reconstructive Surgery of the Eyelids*," which was initially prepared as a thesis for the American Ophthalmological Society. Hughes pioneered the development of micro needles and sutures, standardization of instruments, combination surgery for cataract and glaucoma, and most decidedly, ophthalmic plastic surgery. Hughes was president of the American Academy of Ophthalmology and Otolaryngology in 1967. He was the first president of the American Society of Ophthalmic Plastic and Reconstructive Surgery in 1969. Hughes was president of the New York Ophthalmological Society and the Nassau Ophthalmology Society, which is now the Long Island Ophthalmological Society. He was board-certified in ophthalmology and plastic surgery. Throughout his exceptional career, Hughes followed Wheeler's example in his emphasis on education, both in the personalized training of residents and fellows, and in the educational activities of the American Academy of Ophthalmology and Otolaryngology. Dr. Hughes was appointed the first chairman of the Reconstructive Plastic Surgery Committee of the American Academy of Ophthalmology and Otolaryngology. In 1961, under Dr. Hughes's direction, a manual entitled, "*Ophthalmic Plastic Surgery*," was published by the American Academy of Ophthalmology and Otolaryngology. After Hughes's retirement in 1968 to Florida, the Academy established the Wendell L. Hughes Lectureship, which is co-sponsored by the American Society of Ophthalmic Plastic and Reconstructive Surgery. Alston Callahan and Byron Smith gave the first two lectures. This lecture is presented each year at the Academy's meeting. Dr. Hughes's alma mater, Western Ontario Medical School, also has an annual Hughes Lecture. AJO 1994,118:272-273

Hui, Yan-Nian (1943-) Chinese Ophthalmologist, Professor and Chairman of the Department of Ophthalmology, Fourth Military Medical University (FMMU). He graduated from the FMMU in 1967 and studied Ophthalmology in the Graduate School of the FMMU under Prof. Yong-Shu Cai, and extended his study as a Research Fellow at the Doheny Eye Foundation, Los Angeles, under the direction of Prof. S. J. Ryan (1985-1987). After having served as Associate Professor (1987-1989), he was promoted to the present position in 1990. In 1991-1992, he worked as a Guest Scientist at the Department of Ophthalmology, University of Cologne (Director, Prof. K. Heimann). He has been a member of the Chinese American Ophthalmology Society (1986-), International Executive Committee of the International Society of Ocular Trauma (1990), Vice-Chairman, Shanxi Ophthalmological Society (1990) and the Club Jules Gonin (1998-). He serves as an editor to 12 professional journals, including the Chinese edition of *Arch. Ophthalmol.*, *Chinese Journal of Ocular Fundus Diseases*, *Eye Science* and *Chinese Ophthalmic Research*. He has published more than 200 original papers in the National and International Journals: some examples are "*Vitreotomy for complicated Eales disease*. *Eye Science* 13: 25, 1997", "*Vitreous surgery for severe ocular trauma*. *Chin. J. Ocular Fundus Diseases*. 15: 4, 1999" and "*Prevention of experimental proliferative vitreoretinopathy with daunomycin and triamcinolone based on the time course of the disease*. v. Graefe's *Arch. Clin. Exp.*

Ophthalmol. 237: 601, 1999". He served the Chief-Editor for Section 6 for the Chinese *System of Ophthalmology*, People's Health Publishing House, Beijing 1996. He is a recipient of many Awards, including International Guest Scholar, American College of Surgeons (1984), Eugene Chan Award (1989) and Award from Chinese American Ophthalmological Society (1996). (Department of Ophthalmology, Xijing Hospital, 4th Military Medical University, Xian 710032, People's Republic of China, phone: +86-29-337-5371; fax: +86-29-329-2763; e-mail: yannian_hui@hotmail.com)

Hulke, John Whitaker (1830-1895) A famous London ophthalmologist and President of the Royal College of Surgeons of England. He was born at Deal, England, the son of a well-known general practitioner of that place. He studied at King's College, and was House Surgeon there under Sir William Ferguson. He served in the war of the Crimea, and was surgeon at Smyrna and before Sebastopol. In 1857 he became a fellow of the Royal College of Surgeons and Surgeon to Moorfields Hospital. Here he soon became a finished operator ranking, in fact, almost as high as →Critchett and Sir William →Bowman. In 1862 he was appointed Surgeon to the Middlesex Hospital, and in 1890 was elected President of the Royal College of Surgeons. Among his numerous writings, the following possess a maximum of ophthalmologic interest: 1. *A Practical Treatise on the Use of the Ophthalmoscope; Being the Essay for which the Jacksonian Prize was Awarded in 1859* (London, 1861). 2. *On the Morbid Changes in the Retina, as Seen in the Eye of a Living Person and After Removal from the Body* (Proceed. of the Royal Society 1865). 3. *Anatomy of the Retina in Amphibia and Reptiles* (Proceed. of the Roy.Soc., 1865). 4. *Anatomy of the Chameleon's Retina* (Philosoph. Transacts., 1866). 5. *The Fovea Centralis of the Human Retina* (Ibid., 1867). Hulke was also a well known writer on geology, especially on paleontology. American Encyclopedia of Ophthalmology, Vol.8, p.6062

Hunain (808-873 A. D.) His full Arabic name is **Abu Z.aid Hunain b. Ishaq al Ibadi**; the Latin name: **Johannitius**. A Christian physician who lived at Bagdad and practised as an oculist with conspicuous success. He wrote, among other treatises, "*The Work of the Ten Books of the Eye*," which is highly important as being, so far as we know, the earliest ophthalmological text-book produced in the Arabic period. According to the last "Book" of this work, the author had previously composed nine treatises on ocular subjects, and these he combined together, adding also certain new material, to form the present classic. Usaibia, in his work "*On the Classes of Physicians*," says that the contents of the several books of Hunain's Masterpiece are: (1) *Nature of the Eye*. (2) *Nature of the Brain*. (3) *The Optic Nerve and Vision*. (4) *Hygiene*. (5) *The Causes of Ocular Accidents*. (7) *The Virtues of Medicines*. (8) *Ocular Remedies*. (9) *Treatment of Eye Diseases*. (10) *Combinations of Ocular Remedies, Prescriptions*. " In certain manuscripts, there is given an eleventh book, devoted to Ocular Operations. →Hirschberg, to whom we owe so much that is valuable in the history of ophthalmology, has shown conclusively that this important work by Hunain still exists in two mediaeval Latin translations, as follows: "*Liber de Oculis translatus a Demetrio*" and "*Liber de Oculis Constantini Africani*." Hunain also wrote for his sons David and Isaac, "*a work upon the eye in the form of questions and answers*," nothing but fragments of which have come down to our day. Hunain exerted a tremendous influence in Arabian ophthalmology for more than five hundred years. He is, in fact, always mentioned with a kind of reverence by the most important of the later Arabians, e.g., Ali b. →Isa, →Zarrin-Dast, →Halifa, →Al-Gafiqi, and →Alcoati. American Encyclopedia of Ophthalmology, Vol.8, p.6063-6064

Hung, Por T. (1934-) Taiwanese Ophthalmologist, a graduate of National Taiwan University in 1959, and received Ophthalmology training from Prof. YANG Y.F. He studied at the Wilmer Institute of Johns Hopkins University in U.S.A. during 1967-1968, and studied Immunology with Prof. A. Silverstein, and Glaucoma with Dr. I. Pollack. He again went to the U.S.A. in 1974-1976 and studied Glaucoma at New York Medical College with Prof. M. A. Galin. He was appointed the Professor of Ophthalmology of National Taiwan University in 1976; he stays in this position until today. During his tenure, he served as the Chairman of the Department of Ophthalmology during 1977-1983 and the Vice-President of the National Taiwan University Hospital during 1983-1992. Today, he is active as the Director of Glaucoma Service and of the National Research Laboratory of Myopia of the University. He is editor of many professional Journals, e.g.

Chief-Editor of J. Med. Ultrasound, Taipei, Editor of J. Glaucoma Portland, and J. Ocular Pharmacol. Texas and many others. He is active in public education and works as the President of Taipei Visual Science Education and Research Foundation Inc. He is also active in international activities and is fellow of American Academy of Ophthalmology, member of Association for Research in Vision and Ophthalmology and the Japanese Glaucoma Society. He founded the Asia Oceanic Glaucoma Society and is on the Board of Executive Directors. He is also an important member of the Council of the Asia-Pacific Academy of Ophthalmology, and is the President of the 23rd Congress to be held in Taipei. In recognition of his contribution, the Academy granted him a *Distinguished Service Award* in 1983. His many publications include "Angle-closure Glaucoma, mechanism and provocation after iridectomy, Arch Ophthalmol. 97:1862, 1979" and "Preoperative Mitomycin-C subconjunctival injection and glaucoma filtering surgery, J. Ocular Pharmacol. 11:233, 1995". (National Taiwan University Hospital, 7 Chung-Shan South Road, Taipei, Taiwan, phone: 886-2-2397-0800,ext:5186; fax: 886-2-2341-2634, e-mail: portying@ha.mc.ntu.edu.tw) (SM)

Hunter, James (? - ?) Scottish, Edinburgh ophthalmologist whose life-dates are unknown, but who flourished about the middle of the 19th century. He was for a time surgeon at the Edinburgh Eye Hospital. In addition to an article on presbyopia in a boy (*Edin.Journ. No. 142, pp. 124-129*) he wrote a book entitled, "*On the Influence of Artificial Light in Causing Impaired Vision*" (Edinburgh, 1840, German edition: *Ueber den nachtheiligen Einfluss der künstlichen Beleuchtung auf das Auge* Weimar 1841). American Encyclopedia of Ophthalmology, Vol.8, p.6064 .Albert

Hunter, John (1728-1793) British Surgeon born in Long Calderwood, in the parish of East Kilbride, Lanarkshire, Scotland, the youngest of ten children, he at first displayed no extraordinary ability. Even when twenty years of age, he seems to have shown no very strong predilection for science, or even to have acquired an unusually good education. At about this age, however, he journeyed to London, there to join his brother, William, who had become a celebrated gynecologist. Stimulated by the example of his brother, he entered on the study of anatomy, and soon displayed a most extraordinary talent for this subject. He then proceeded to study surgery, first at the Chelsea Hospital then at St. Bartholomew's. In 1756 he was surgeon at St. George's. For a time -from 1760-63-he was surgeon in the English navy. Returning to London, he became almost at once a famous man. However, he published nothing until 1771, when he was 43 years old. In fact the labor of writing seems always to have been for him extreme, and he never, even to the end of his life, attained to the clearness, force, and perfection of polish, which so plainly characterized the literary style of his far less painstaking brother. Nevertheless, he was a great observer and thinker, and he it was who, by directing attention to the underlying principles and facts of anatomy, physiology and pathology, established the surgery of England on a scientific basis. Hypothesis, with him, was in little estimation. He wrote to Edward Jenner, concerning a certain theory which the younger man had just proposed, "*I think your solution is just; but why think? Why not try the experiment? Repeat all the experiments upon a hedgehog as soon as you receive this, and they will give you the solution.*" It was also largely due to Hunter's suggestions and stimulus that the validity of vaccination was established by Jenner on an eternal foundation of careful experiment and exact observation. In fact Hunter's passion for observation amounted almost to mania. His own house at Earl's Court, Brompton, was almost literally "packed" with hedgehogs, blackbirds, lizards, snakes, fishes, toads, partridges, pheasants, silk-worms, eagles, bees, and even leopards. Once he nearly lost his life -by the escape of two leopards from their cages. These, however, he returned to their places alone and absolutely unassisted. Again, he was almost torn to pieces in a contest with a bull. Of course he did not know of the existence of the spirocheta pailida, but lie calmly faced its ravages just the same-as will appear more plainly hereafter. For fifteen years he kept a flock of geese, and all this time he studied the embryology of the goose with most intense persistency. "*It would almost appear,*" he said, "*that this mode of propagation was intended for investigation.*" In the course of his toxicological experiments he poisoned, according to his own statement, "*some thousands of animals.*" He succeeded in engrafting a human incisor tooth on the comb of a cock. He exchanged the spurs of a young cock and a young pullet. On the cock the small pullet spurs grew vigorously, while, on the pullet, the spurs of the cock

either did not grow at all or grew very little. His experiments on the bones of animals with inserted shot, followed up by the feeding of madder, are among the most familiar facts of high-school physiology. Hunter's most important writings are: 1. *Natural History of the Human Teeth, Explaining Their Structure, Use, Formation, Growth, and Diseases*. (London, 1771; 1778; Lat. trans., by Baddaert, Leipzig, 1775; Ger. trans., Leipzig, 1780.) 2. *On the Venereal Disease*. (London, 1786; Ger. trans., Leipzig, 1787; French trans., Paris, 1787.) 3. *Observations on Diseases of the Army in Jamaica and on the Best Means of Preserving the Health of Europeans*. (London, 1788; Ger. trans., Leipsic, 1792.) 4. *On the Nature of the Blood, Inflammation and Gun-Shot Wounds*. (London, 1794; Ger. trans., Leipzig, 1797/1800.) 5. *Observations on Certain Parts of the Animal Economy*. (London, 1787; Ger. trans., Braunschweig, 1803.) In the work on the *Venereal Disease*, Hunter, though he contributed much to our knowledge of syphilis, soft chancre, and gonorrhoea, yet did much harm because of the position which he took and most tenaciously defended, respecting the identity or non-identity of these three diseases. To him it seemed to be absolutely plain that all these three affections were one and one only. His belief, however, was by no means baseless, for, to determine the question, he had inoculated himself, on the prepuce and the glans, with gonorrhoeal virus, and, in consequence, had, at the usual intervals, developed not only gonorrhoea, but also chancroid, and, finally, "Hunterian" chancre and syphilis. Until the beginning of the 18th century there had been no doubt at all concerning the essential unity of the venereal disease. Then there began to arise certain questioning voices. The matter remained in abeyance for a time, until, in fact, this work of Hunter's, when the question appeared to have been settled for all time. "No question," however, "is settled until it is settled right." So, from 1831 to 1837, by a vast series of inoculations, the immortal Ricord conclusively demonstrated that the three are by no means one, but that the one is by all means three. In (5) "*Observations on Certain Parts of the Animal Economy*," Hunter recorded his investigations into the ocular pigment and the functions of the ocular oblique muscles. He was the *first* to describe the muscular layer of the iris. As a result probably of his self-induced syphilis, Hunter developed an aneurism of the aorta. Being a very irascible man, he was one day angered by a confrère, the aneurism ruptured, and Hunter passed almost immediately away. This occurred Oct. 16, 1793, when Hunter, though aged sixty-five, was still in the zenith of his powers and immense usefulness. American Encyclopedia of Ophthalmology, Vol.8,p.6064-6067

Hutchinson, Jonathan (1859-1933) British surgeon and ophthalmologist. Jonathan Hutchinson, like his distinguished father Sir Jonathan Hutchinson, was surgeon to the London Hospital. When he was born at Reigate in 1859 it was still possible for a surgeon to be encyclopaedic. Few advances had been made: Lister was still a physiologist; anaesthesia was on its trial; the microscope was but little used, for the staining and hardening of tissues was in its infancy; the ophthalmoscope and laryngoscope were new instruments. He lived to see everything changed, for he lived in the very heart of scientific surgery both at home and in the hospital. Educated at University College School, then in Gower Street, he entered the London Hospital Medical, College in October 1876, having gained the Buxton scholarship in arts. During his student career he was awarded honorary certificates in anatomy, physiology, and chemistry, and won the medical scholarship. He qualified M.R.C.S. in 1880, and was admitted F.R.C.S. on 13 November 1884, after serving as house surgeon to Frederick Treves. In the Medical College he was appointed assistant demonstrator of anatomy in 1882, and filled the post of demonstrator during 1893-95. At the Hospital he was elected surgical registrar in 1885 and served until 1889, when he became assistant surgeon, succeeding to the full staff in 1898, and becoming consulting surgeon in June 1920. He showed a versatility comparable with that of his father, for he filled the office of clinical assistant at the Royal London Ophthalmic Hospital, Moorfields, was ophthalmic surgeon to the Great, now Royal, Northern Hospital, and was surgeon to the Lock Hospital. He began his connexion with the Royal College of Surgeons of England by winning the Jacksonian prize in 1888 with an essay on *The diagnosis, effects, and treatment of injuries to the epiphyses of long bones*; the prize was awarded to him again in 1914, when he competed with *The pathology, diagnosis, and treatment of trigeminal neuralgia*. The honour was peat for in the long previous history of the Jacksonian prize it had been gained more than once only by Joseph Swan in 1817 and 1819, by George Calvert in 1822, 1823, and 1824, and by Rutherford Alcock in 1839 and 1841. He delivered the Erasmus Wilson lecture in 1892 on *Syphilitic affections of bones*,

joints and the lymphatic system, and in the following year he spoke on *Injuries to the epiphyses and their results* in his capacity as Hunterian professor of surgery and pathology. He was a member of the Court of Examiners 1911-21, and was elected a member of the Council in 1913. This honourable position he resigned in 1914, as no member of the Council can compete for the Jacksonian prize. Although he was never greatly interested in committee work he acted as honorary secretary of the Medical Society of London, was a member of the Pathological Society and was elected a Fellow of the Royal Medical and Chirurgical Society, then a somewhat exclusive body, as early as 1888. He lived during the greater part of his professional life at 1 Park Square, Regent's Park, where he died on 27 March 1933. In an annexe to the house there was long maintained the clinical museum collected by his father, which was used to illustrate post-graduate lectures at the Policlinic. Hutchinson wrote: *Aids to ophthalmic medicine and surgery*. London, 1889; 3rd edition, 1900; *The surgical treatment of facial neuralgia*. London, 1905; *On facial neuralgia and its treatment, with especial reference to the surgery of the fifth nerve and the Gasserian ganglion*. London, 1919; *Hernia and its radical cure*. London, 1923. He edited the second (1903) and third (1909-10) editions of Treves's *Manual of operative surgery*, and wrote the articles on Gonorrhoea, Diseases of the skin and Syphilis in Treves's *System of surgery*, 1895-96, and edited the 2nd (1904), 3rd (1911) and 4th (1924) editions of Treves's *Students' Handbook of Surgical Operations*. LFRCS

Hutchinson, Jonathan (Sir Jonathan) (1828-1913) Famous British ophthalmologist, father of Jonathan (Jr.) Hutchinson. Appointed assistant surgeon to the Royal London Ophthalmic Hospital in the early sixties, he lectured from 1862 at the London Hospital on the principles and practice of surgery. There he became full surgeon 1863 and lectured on medical ophthalmology in the Medical College attached to the Hospital. In 1868 he became full surgeon to the Royal London Ophthalmic Hospital and stayed until 1883. He was vice-president of the Ophthalmological Society of the United Kingdom in 1880-81 and had the presidential chair from 1883 to 1886. He was elected vice-president from 1886-89. He delivered the Bowman Lecture in 1884 his subject being "*The Relation of Certain Diseases of the Eye to Gout*". Important papers were published in *Ophthalmic Hospital Reports*. In 1863 he published his classic "*A clinical memoir on certain diseases of the eye and ear, consequent on inherited syphilis*" London 1863. This book represents a much extended reprint of his papers published in the *Ophthalmic Hospital Reports*. His *Archives of Surgery* (1889-1899), in ten volumes, is a compendium of original observations. His most important writings are: "*On the Form of Dyspepia which Usually Attends Phthisis*" (1862) -, "*Surgical Diseases of Women*" (in Holmes's "*System of Surgery*") "*On Constitutional Syphilis*" (in Reynold's "*System of Medicine*") "*The Rectangular Catheter Staff for Lithotomy*;" "*Clinical Illustrations of Amaurosis*;" "*Lesions of the Eye in Connection with Injuries to the Fifth Nerve*;" "*Illustrations of Clinical Surgery*;" "*Clinical Lectures on Rare Diseases of the Skin*." American Encyclopedia of Ophthalmology, Vol.8, p.6067-6068. The Ophthalmoscope, London 1913, p.503-505 (by E. → Nettleship); Albert.

Hutchison, Edwin (1840-1887) American ophthalmologist, founder of St. Elizabeth's Hospital, at Utica, N. Y. Born at Utica, he received his education in the arts and sciences at Yale and his medical training at the Long Island Hospital Medical College and at the College of Physicians and Surgeons in the City of New York. At the latter institution he received his degree in 1866. Having served throughout the war, and also having received his medical degree he settled in New York both as general surgeon and as ophthalmologist, and, though his right forearm was ankylosed upon the humerus he soon had a wide reputation as an operator. American Encyclopedia of Ophthalmology, Vol.8, p.6069

Huygens, Christian (1629-1695) Dutch astronomer, mathematician, mechanic and optician. He was born at The Hague, Holland, the second son of Constantine Huygens, Lord of Zelem and Zuylichem, and Secretary to the Prince of Orange. After his earliest instruction, which he chiefly received from his very learned father, he studied, first, at Leyden, mechanics and mathematics, and, later, at Breda, jurisprudence. Soon, however, he abandoned his legal studies, returning to mechanics, mathematics, and, by far the most important matter for our purposes, to optics. In 1665 he invented a new and highly successful method of grinding lenses, and, by the aid of some of the lenses of his own



Christiaan Huygens

production, he discovered a satellite of Saturn, and for the first time in history announced the existence of the Saturnian ring as well as its angle to the ecliptic, 20°. Prior to that announcement the changing phenomena of Saturn had given to that body the appellation of "the triple planet." Huygens also invented the pendulum-clock, a copy of which instrument he presented to the States General on the 16th of June 1657. He also solved the problem of "the center' of oscillation," invented cycloidal cheeks for clocks, as well as the "aerial telescope," which consisted simply of a series of lenses of very long focal distances, mounted on high poles. In the field of optics his work was, if possible, more important and wide-sweeping still. He it was who established for all time the wave theory of light, which already had been propounded both by →Grimaldi and by →Hooke. Huygens announced the results of his investigations as early as 1678 before the Paris Academy but it was not until 1690 that he published the little "Traité de la Lumière." Huygens also discovered the polarization of light, a phenomenon described in the same "Traité." Throughout the work, its distinguished author assumes the existence of a luminiferous ether, the fundamental principles of which he was first in history to propound. This theory was afterward further developed and firmly established by →Euler, by →Fresnel, and, to much the same effect but independently, by →Young. *Opuscula postuma, quae continent Dioptricam* Lugduni Batavorum 1703. Huygens never married. He died in his native town, The Hague, June 8, 1695. American Encyclopedia of Ophthalmology, Vol.8, p.6069-6070; W. W. Rouse Ball A Short Account of the History of Mathematics' (4th edition, 1908).

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Ibn Abi as-Sajjar. An Arabian ophthalmologist of the Middle Ages, whose name is mentioned in Halifa's "Book of Sufficiency in Ophthalmology." Nothing else is known about him. American Encyclopedia of Ophthalmology, Vol.8, p.6133

Ibn Mendeweih al-Isbahani. An Arabian physician of the 11th century, who, in addition to a number of works on general medicine, composed a special (but unimportant) book entitled, "On the Ocular Membranes and, the Dilatation of the Pupil." American Encyclopedia of Ophthalmology, Vol.8, p.6133

Ibn Serafiun. See **Serapion the Elder.**

Ibn Sina. See **Avicenna.**

Ibn Wasif. A famous Sabaean physician who flourished at Bagdad in the middle of the 10th century. He was far and away the most noted oriental ophthalmic operator, and was besieged by patients not only from India and Egypt but from far Andalusia and Gaul. He was also a famous teacher, but he left no writings. It is related that on a certain day seven cataract-patients came in a body to Ibn Wasif's door. Of these, one offered him for an operation 80 drachma, pretending that this amount constituted his entire fortune. But just at the critical moment, the patient's girdle broke, strewing the whole floor with glittering gold-pieces. In anger, Ibn Wasif arose and drove the liar from his house. All of which shows that patients have always been as tricky and oculists as easily imposed upon and, withal, as uncalculatingly irritable as is the case today. American Encyclopedia of Ophthalmology, Vol.8, p.6133

Ibn Zuhr, Abu Bekr Muhammed b. Abd al-Malik (1113-1199). This fairly famous physician in general and excellent ophthalmologist in particular was born at Seville and died in Morocco, the son of the famous →Avenzoar, he was body-physician to the king and a well-known poet. He is said to have written a volume on the diseases of the eye, which enjoyed an excellent reputation during its author's lifetime, but which, to all appearances, has been irrecoverably lost. American Encyclopedia of Ophthalmology, Vol.8, p.6134.

Ibn Zuhr, Abu Muhammed Abdallah b. Abu Bekr Muh. This wellknown grandson of the much more famous →Avenzoar would seem to have been an excellent practical oculist and writer on diseases of the eye. Nothing from his pen, however, is extant. American Encyclopedia of Ophthalmology, Vol.8, p.6134

Ichikawa, Hiroshi (1922-1999) Japanese Ophthalmologist, Professor Emeritus of Nagoya University. He graduated from Nagoya University in 1945, studied Ophthalmology under Prof. NAKAJIMA Minoru and received Doctor the degree of Medical Sciences in 1952 (thesis: Studies of extrafoveal color sensation using monochromatic light. J. Jpn.



Hiroshi Ichikawa