

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

G

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

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

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

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

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

J. Plummer's *The Story of a Blind Inventor* (1868). American Encyclopedia of Ophthalmology, Vol. 7, p. 5327. The Ophthalmoscope 1907, p. 180-181



Woodcut from Galen's *Anatomy* printed in Lyon 1588

Galen, Claudius (AD 130-200) The greatest physician of all time, except Hippocrates, and the idol of the medical world for more than a thousand years. Galen was born at Pergamos, in Alysia. His father, Nicon, was an architect. Of him the subject of this sketch speaks with the greatest affection and admiration, but his mother he calls a virago. His father, he says, "Was of surpassing skill in Geometry, architecture, astronomy, arithmetic and logic; but was even better known for his justice, modesty and goodness." Because of a dream, the father decided to dedicate his son to medicine. Galen received his education not only in his native town but also in many other cities—Smyrna, Corinth, a place or two in Palestine, and, of course, in Alexandria. In the school at the last named place he saw a human skeleton, an experience that seems to have made a great impression on him. In 159, he returned to his native city of Pergamos, and became a gladiatorial physician. Six years later he went to Rome. In Rome he met with an accident, almost upon arriving. Going to a wrestling school, or else a school for gladiators, he indulged in a wrestle, and being heavily thrown, received a dislocation of the shoulder. The bone was set, as it seems, by one who happened to be standing near, under, of course, the instructions of the learned patient himself. Galen, in Rome, soon became the greatest physician, of the known world, although engaged in constant controversy with other members of his profession. He fought especially the sect of the Methodists. Owing to the rancor engendered by his continual professional disputes, he quitted Rome when 37 years of age, went again upon scientific travels, and, finally (as it must have appeared to him) settled in his native Pergamos. It was not quite "finally," however, for, in a very short time, he was summoned back to Rome by the Emperor, Marcus Aurelius, for the purpose of accompanying that philosopher-warrior on a military expedition into Germany. The great physician, however, very conveniently had a dream, which rendered his trip to Germany inauspicious. Later, he was appointed body physician to the Emperor Commodus. Here ends our knowledge of the external life of the great physician, Galen. American Encyclopedia of Ophthalmology, Vol. 7, p. 5327-5336.

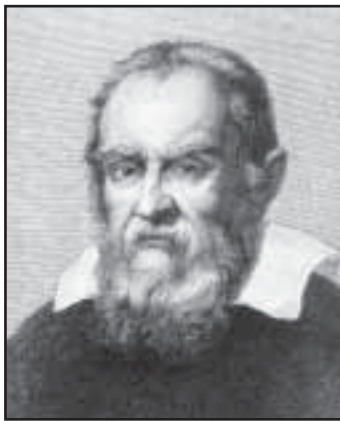
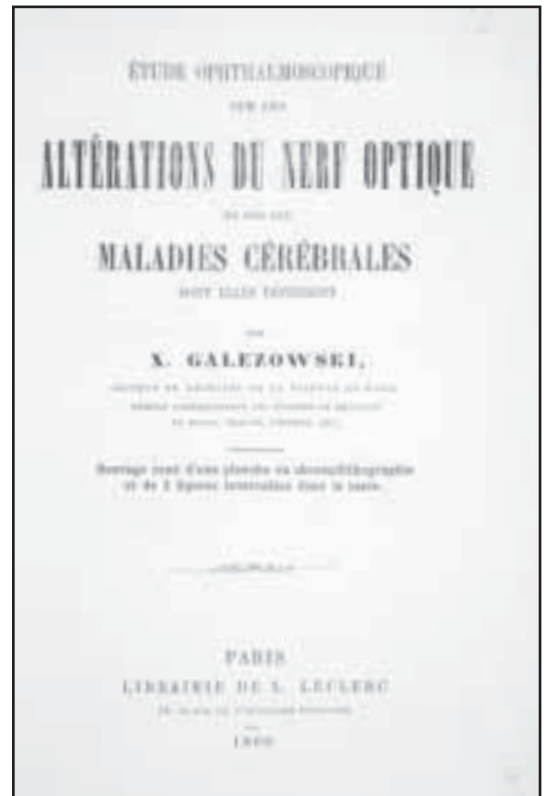
Galezowski, Jean (1877-1936) French ophthalmologist, born in Paris, son of Xavier Galezowski. His father was his first teacher in ophthalmology. He was also a pupil of Morax and Lapersonne. His doctoral thesis *Le Fond de l'Oeil dans les Affections du Système Nerveux* (1904) represents an important link between Charcot's work and to-day's realisations in neuro-surgery. Among his publications we have to note *Hétérochromie de l'Iris; Cataracte et Troubles du Sympathique; Atrophie Optique Tabétique et Scotome Central*. During the first World War, he organized an ophthalmic service in Le Havre (1915) where he had to help many wounded Belgium soldiers, then, in 1916, he became Chief Physician at the Red Cross in Deauville. After the war, he became ophthalmologist at the Clinic of the Pont-Neuf. JPW



Xavier Galezowski

Galezowski, Xavier (1832-1907) French ophthalmologist, father of Jean Galezowski. He was born at Lipowice, Poland, the nephew of a distinguished general surgeon, Severin Galezowski. He began the study of medicine at St. Petersburg, where he received his degree in 1858. He then proceeded to Paris, where, in 1865, he received the *ad eundem* degree. He studied for a time with Trousseau, and was for a brief period Chef-de-Clinique to Desmarres. During the course of a long and active professional life he invented a number of instruments and devised many operations that still bear his name. He founded the *Recueil d'Ophthalmologie*, and was for a long time its editor. His clinic for many years attracted hundreds of students and was attended by many thousands of devoted and enthusiastic patients. He wrote a large number of articles, which appeared in his own journal as well as in the "Archives Générales de Médecine," *Gazette des Hôpitaux*, *Le Mouvement Médical*, *Union Médicale*, *Revue d'Hygiène*, and the *Annales d'Oculistique*. He wrote several ophthalmic treatises among which the most important are: *Observations cliniques sur les maladies des yeux* Paris 1862; *Recherches ophthalmoscopiques sur les maladies de la rétine et du nerf optique*. Paris 1863; *Etude Ophthalmoscopique sur les Altérations du Nerf Optique et sur les Maladies Cérébrales*, Paris 1866; *Du Diagnostic des Maladies des Yeux par la Chromatoscopie Rétinienne*, Paris 1868; *Traité des Maladies des Yeux*. (2 vols.) Paris 1870-1872; *Traité Iconographique d'Ophthalmoscopie comprenant la Description des différents Ophthalmoscopes*. Paris 1876. *Échelles optométriques et chromatiques pour mesurer l'acuité de la vision* Paris 1883. He wrote with A. Kopff:

Hygiène de la vue Paris 1888 and *Échelles portatives des caractères et des couleurs pour mesurer l'acuité visuelle* 2d. ed. Paris 1890 and with V. Daguenet: *Diagnostic et traitement des affections oculaires*. Paris 1886. He also authored *Leçons Cliniques d'Ophthalmologie* Paris 1902 and *Le Fond de l'Oeil dans les Affections du Systeme Nerveux*, Paris 1904. He had a son , Jean G. who also became ophthalmologist. The Ophthalmoscope, London 1907,p.288. Albert.American Encyclopedia of Ophthalmology, Vol.7, p.5336. JPW



Galilei

Galilei (1564-1642) one of the fathers of experimental science, was born at Pisa, Italy. Entering the University of Pisa in 1581, he was two years later struck with the fact that the oscillations of a pendulum, no matter what their range, seemed to be accomplished in equal times. About this time he invented a hydrostatic balance and wrote a treatise on the specific gravity of solid bodies. These achievements secured him the appointment of professor of mathematics in the University of Pisa, where he propounded the novel theorem, that all falling bodies, great or small, descend at equal velocity, and proved its correctness by several experiments made from the summit of the leaning tower of Pisa. This provoked the enmity of the Aristotelians, and Galileo resigned his chair at Pisa and retired to Florence in 1591. In the following year he was nominated to the chair of mathematics in the University of Padua, where his lectures attracted crowds of pupils from all parts of Europe. Here he taught and worked for eighteen years, from 1592 to 1610. Galileo now began a series of astronomical investigations, all of which tended to convince him still more of the correctness of the Copernican heliocentric theory of the heavens. He concluded that the moon, instead of being a self-luminous and perfectly smooth sphere, owed her illumination to reflection, and that she presented an unequal surface, diversified by valleys and mountains. The milky-way, he pronounced a track of countless separate stars. Still more important, however, was the series of observations which led to the discovery of the four satellites of Jupiter on the night of January 7, 1610. He also first noticed movable spots on the disc of the sun, from which he inferred the rotation of that orb. In this year he was recalled to Florence by the Grand Duke of Tuscany, who nominated him his philosopher and mathematician extraordinary. At Florence, continuing his astronomical observations, he discovered the triple form of Saturn and the phases of Venus and of Mars. In 1611 Galileo visited Rome and was received with great distinction, being enrolled a member of the Lincei Academy. Yet the publication, two years later, of his Dissertation, on the Solar Spots, in which he openly and boldly professed his adhesion to the Copernican view, provoked against him the censure and warning of the ecclesiastical authorities. Galileo, however, promised (Feb. 26, 1616) to obey Pope Paul V's injunction, thenceforward not to "hold, teach or defend" the condemned doctrines. But in 1632, ignoring his pledge, he published the "*Dialogo sopra i due massimi Sistemi del Mondo*". Pope Urban VIII was led to believe that Galileo had satirized him in this work. In spite of his seventy years and heavy infirmities, Galileo was summoned before the Inquisition, and after a wearisome trial and incarceration, was condemned to abjure by oath on his knees the truths of his scientific creed. Since the year 1761 a legend has been current to the effect that on concluding his recantation he exclaimed, sotto voce "Epur si muove" (Nevertheless it does move). In his retreat at Arcetri, near Florence, he continued with unflagging ardor his learned researches even when hearing grew enfeebled and sight was extinguished. Just before he became totally

blind, in 1637, he made yet another astronomical discovery, that of the moon's monthly and annual librations. American Encyclopedia of Ophthalmology, Vol.7, p.5337. DSB 2, 237-249



Emile Gallemaerts

Gallemaerts, Emile (1860-1935) Belgian ophthalmologist. Gallemaerts obtained at the Brussels University a Ph.D. in 1883 and his M.D. in 1886. He specialized in

ophthalmology under Jean-Baptiste Coppez. In 1890 he obtained the special doctorate with a thesis on *synchisis scintillans* and was attached at the Department of histology (until 1905). From 1890 he practiced ophthalmology in a non-university clinic, but in 1905 he succeeded to Coppez as head of the University department of ophthalmology. He did clinical work in the morning and laboratory work afternoon. He reached the age limit 1925. His scientific output can be subdivided in fundamental histopathological work and in clinical work. In the first category we find papers about anatomical matters as the *sphenoidal cleft* (1897), the *accessory ophthalmic ganglions* (1899), on *Tenon's capsule* (1899), the *structure of the chiasma* (1900) and even the visual centers after removal of one eye. He wrote histological reports on *xanthelasma*, *intraocular chloroma*, *congenital anophthalmia* and *intraocular cysticercosis*. His clinical work covers

all parts of ophthalmology (including carbon disulfide intoxication in 1890 and treatment of corneal ulcer by abrasion and iodine cauterisation in 1894), but the most important subjects are the detection of magnetic intra-ocular bodies with a magnetometer designed by Léon Gérard (1890) and the introduction in Western Europe of ocular slitlamp biomicroscopy (with an extensive report for the French Ophthalmological Society in 1925). He wrote (with Kleefeld) *Etude Microscopique de l'Oeil vivant* (Paris 1920). He tried intracapsular cataract extraction. He was a member of the Belgian Academy of Medicine and its president in 1925. At the beginning of his career he has been secretary of the Belgian Society of Microscopy (1886-1890) and of the Royal Society of Natural and Medical Sciences (1890-1904). He was a founder member - in fact the real founder - of the *Belgian Ophthalmological Society* in 1896. (Verriest) JPW



Gallemaerts professoral thesis

Gallereux, Ambroise Martin (c.1780-?) French ophthalmologist, born at Chichée, France. He received his medical degree at Paris, and settled at Tonnerre, where he seems to have lived until his death. His exact life dates are not procurable. He wrote: 1. *Mém. sur les Soins A Donner aux Personnes qui ont été Opérées de la Cataracte* (Paris, 1816); 2. *Avis au Peuple sur la Cataracte* (Paris, 1826); 3. *Observations Relatives A Deux Modes d'Altération du Nerf Optique. etc.* (in Sédillot's Rec.Périod.de la Soc.de Méd. de Paris); 4. *Sur l'Application Topique des Dissolutions d'Opium dans les Ophthalmies*. American Encyclopedia of Ophthalmology, Vol.7, p.5339.

Galvani, Luigi (1737-98) Italian anatomist born at Bologna, where he studied theology and, subsequently, medicine at the University there and in 1762 was elected professor of anatomy. Galvani owes the wide celebrity attached to his name to his discoveries in animal electricity; and there is evidence that his views were based on experiments patiently conducted for many years before the publication of his *De viribus Electricitatis in Motu Musculari Commentarius* (1791) [GM 593]. He died in Bologna, where his statue was erected in 1879. Most of his writings were published in a quarto edition in 1841-42 by the

Academy of Sciences of his native city; but several manuscript treatises by him were discovered there in April, 1889. American Encyclopedia of Ophthalmology, Vol. 7, p. 5341.

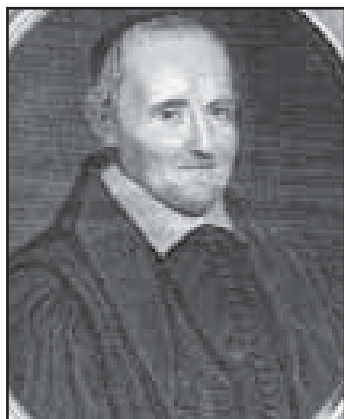
Gardner, Mark Clayson (? – 1949) Australian ophthalmologist. Having graduated M.B. at Melbourne in 1908, he subsequently became M.D., and also acquired the D.O., as well as the Fellowship of the Australasian College of Surgeons. He served in the 1912 Balkan war, during which he was working for many months with Sir Max Page, D.S.O., a distinguished surgeon of St. Thomas's Hospital. From 1914 to 1919 Mark Gardner performed varied and valuable tasks with the R.A.M.C., and he received the Military Cross in 1917. Then in 1919 he became House Surgeon at Moorfields Eye Hospital, as the immediate junior of William Simpson, who practised in Wellington, New Zealand. After returning to his home city, Mark rapidly gained a prominent position in ophthalmology. He was elected to the staff of the Victorian Eye and Ear Hospital, the Children's Hospital, and other institutions. In 1935 he presided over the Victorian Medico-Legal Society, which he had himself founded four years previously. He also became a member of the Council of Trinity College, Melbourne, and was chosen Honorary Treasurer of the Melbourne Medical Association. Throughout the second world war he did excellent work as Consultant Ophthalmologist at the Heidelberg Military Hospital, Victoria. BJO 1950,34:127

Garengot, R.J. Croissant de (1688-1759) French general surgeon of Paris, who wrote a "*Traité des Opérations de Chirurgie*" (1731)[GM3577] and a "*Treatise on Instruments*" (1723), both of which were much read for many years. He was one of the first to extract a cataract, having performed this operation soon after its invention by →Daviel. His writings, however, possess almost no ophthalmologic importance. American Encyclopedia of Ophthalmology, Vol. 7, p. 5344

Garrow, Alexander (1876-1966) Scottish ophthalmologist. Garrow worked at his profession for 67 years for he graduated at Glasgow University in 1898 at the age of almost 22 and he saw his last patient a few weeks before he died. As a very young graduate he went off to the South African War with a medical unit led by the late Colonel Donald MacIntosh, Medical Superintendent of the Western Infirmary. He so liked the country that he returned there later with his wife and practised in Steypterville, Eastern Province. His two sons were born in South Africa. When the Great War of 1914 broke out, Dr. Garrow made efforts to come home to Scotland to join up, but, finding this impossible joined the South African Medical Corps and served in South Africa. Soon after the Armistice he came home to Glasgow and here he spent the rest of his life. His main hospital was the Ophthalmic Institution, but he was also ophthalmologist to the Royal Hospital for Sick Children and the Ear, Nose and Throat Hospital. Brit. J. Ophthal. 1966, 50: 503-504

Gärtner, Jürgen (1921-) German ophthalmologist. University lecturer Heidelberg 1962, professor in Mainz 1969. He wrote: *Periphere Zystoide Degeneration der menschlichen Netzhaut*, 1974, contribution in *Organpathologie*, vol. III: (The Eye) 1974. More than 100 articles in ophthalmic journals. Kürschners Gelehrten- Kalender 1966, p. 632 & 1987, p. 1213. F. Hollwich Ophthalmologenverzeichnis 1964, 121.

Gass, J. Donald M. (1928-) American ophthalmologist. Donald Gass' contributions to ophthalmology have been vast. He received his medical degree from Vanderbilt University and completed residencies in ophthalmology at the Wilmer Eye Institute, Johns Hopkins Hospital. Much of his work was done in Miami, where Gass combined his interest in pathology with new techniques for viewing the retina, which is located at the back of the eye. He is well known for his research on diseases that affect different parts of the eye, such as the retina, macula and uvea. Gass continues to practice and is professor of ophthalmology at both the University of Miami School of Medicine and Vanderbilt University in Nashville.



Pierre Gassendi

Gassendi, Pierre (1592-1655) French philosopher and scientist. He was one of the first, but not the very first, to declare the true location of cataract. Concerning this matter, he says, in his "*System of Physic*" (8, II, p. 371) "*To show that the visual power does not go out from the lens requires no other proof, since that distinguished Parisian surgeon has shown that an animal can see without a lens. He has found, that is to say, that a cataract does not consist of a little membrane between the lens and the uvea, which is torn with the*

needle and sunken into the depths of the eye; but that the crystalline body itself, which is shriveled up, is, torn from the ciliary processes and sunken into the depths." The very first to teach the true doctrine of the nature and location of cataract was →Quarré(1643-1650?); the first to confirm that doctrine by actual dissection was →Rolfinck, in 1656.American Encyclopedia of Ophthalmology, Vol.7,p.5345-5346. DSB 5, 284-290

Gasteiger, Hugo (1899- ?) Austrian ophthalmologist.MD 1923 Innsbruck, university lecturer Innsbruck 1929 and Frankfurt 1935, professor (without chair) 1936, director Dresdner City Eye Clinic 38. Professor and chair Humboldt University Berlin 1951, Freie Universität Berlin 1957. Specialities: Allergy of the eyes and operative problems.More than 125 articles in different ophthalmic journals. Co-editor of *Klinische Monatsblätter f.Augenheilkunde* since 1955.*Kürschners Gelehrten- Kalender* 1966, p.642; F. Hollwich *Ophthalmologenverzeichnis* 1964, p.123.

Gataker, Thomas (1715?-1769) English surgeon, of some importance in ophthalmology. The place and date (about 1715) of his birth are not definitely known. He practised in London, was surgeon to St. George's Hospital and to the King of England. Gataker wrote, in addition to works of a general character, "*An Account of the Structure of the Eye; with Occasional Remarks on Some Disorders of that Organ*" (London, 1761).American Encyclopedia of Ophthalmology, Vol.7,p.5346.Albert

Gauss, Carl Friedrich (1777-1855) German mathematician born Brunswick in Germany. Gauss was educated at the Brunswick Collegium Carolinum (1792-1795) and the University of Göttingen (1795-1798). At the age of twenty-four he became famous in scientific circles on the publication of his *Disquisitiones arithmeticae*, a landmark work in number theory, and his calculation of the orbit of the newly discovered planet Ceres. He was director of the observatory at Göttingen from 1807 until his death. With his numerous contributions to pure and applied mathematics, Carl Friedrich Gauss was a true pioneer. From the many unpublished works left in his estate it is clear that he was also well ahead of his time. Some of his most important works are on the number theory, infinite series, numerical mathematics and algebra. His new methods of calculation formed the basis of the precise determination of planetary orbits. Together with the physicist Wilhelm E. Weber, he developed a theory of geomagnetism. His work in the field of optics set pioneering new trends. Today, his calculations in physics, astronomy and the geosciences, in statistical investigations and in the software algorithms of modern computer technology are still of paramount importance. In 1821 he invented the heliotrope, a device for measuring distances by means of reflected sunlight. Among his numerous writings, he authored: *Dioptrische Untersuchungen*. Göttingen 1841; *Werke* Leipzig 1863-1933. Albert.DSB 2, 298-315.JPW



Carl Friedrich Gauss painted by Christian A. Jensen (1792-1870)

Gavarret, Jules (?-1890) French physicist and physician, of some importance in ophthalmology. The date and place of his birth are unknown. He became a physician at Paris in 1843, and was Inspector General for Medicine, and Professor of Medical Physics in the same city. Among his writings the following are of interest to ophthalmologists: 1) *Des Images par Réflexion et par Réfraction* (Revue des Cours Scientif., 1866.) 2. *De l'Astigmatisme* (in collaboration with →Javal, Paris, 1867).American Encyclopedia of Ophthalmology, Vol.7,p.5346-5347.

Gayet, Charles Alphonse (1832-1904) French ophthalmologist.He occupied the chair of ophthalmology at Lyons from its foundation in 1872 until his death. He wrote no books (here the American Encyclopedia was wrong: Gayet wrote *Elements d'Ophthalmologie*, Paris 1893), but contributed many articles to the *Archives d'Ophthalmologie*, invented a corneal microscope and devised a number of operative measures that bear his name. He was a member of the Académie de Médecine, Officier de la Légion d'Honneur. American Encyclopedia of Ophthalmology, Vol.7,p.5347. JPW

Gazépy, Georges (also Gazépis) (1860-1929) Greek ophthalmologist born in Chalcis, Greece, who received his medical education in Athens and in Paris, where he worked under Photinos→Panas. In 1899 he became professor of ophthalmology and director of the eye clinic at the University of Athens. He devised a new method for canthoplasty and published reading tests in Greek, Arabian, Turkish, Serb, Roumanian, Bulgarian, Armenian, Russian, Italian and French: *Echelle opsiométrique en dix langues*

Geach, Francis (1724-1798) English surgeon of some importance in ophthalmology. He became physician-in-chief to the Plymouth Hospital, and Fellow of the Royal Society. Among his writings the following is of ophthalmologic interest: "*Medical and Chirurgical Observations on Inflammation of the Eyes*," etc. (London, 1766-68). American Encyclopedia of Ophthalmology, Vol.7, p.5347.

Gendron, Louis Florent Deshais *see* DESHAIS-GENDRON, Louis Florentin.

Gensoul, Joseph (1797-?) French surgeon, inventor of cauterization of the cornea. Born at Lyons, he studied at Lyons and Paris, at the latter institution receiving his degree in 1824. Returning to Lyons he became a famous surgeon. According to E.J.Gurlt(1827-1899) he was a brilliant operator and inventor, having improved the technique of rhinoplasty, cleft-palate, catheterization of the nasal canal, cauterization of varices, etc. Two of his most important writings are the following. 1. *Lettre Chirurgicale sur quelques Maladies Graves du Sinus Maxillaires et de l'Os Maxillaire Inférieur* (with folio atlas; Lyons, 1833..) 2. *Sur le Mécanisme de la Vision* (Paris, 1851). American Encyclopedia of Ophthalmology, Vol.7, p.5357

Genth, Carl (1844-1904) German physician, who, in conjunction with →Pagenstecher, wrote the "*Atlas der Pathologischen Anatomie des Augapfels*." The text of this book was translated into English in 1875 by Sir William →Gowers. American Encyclopedia of Ophthalmology, Vol.7, p.5357.

Gepner, Boleslaw (1837-1913) Polish ophthalmologist from Warsaw. Pupil of A.v.→Graefe and translator into Polish of F.C. →Donders famous "*On the Anomalies of Accommodation and Refraction of the Eye*" London 1864. The Ophthalmoscope, London 1913, p.382.

Gerardus Cremonensis (1114-1180 A. D.) An esteemed translator into Latin of Avicenna's "*Canon*," as well as of numerous other Arabian writings; also of the works of Galen and Hippocrates. He invented the word *orbita*, whence, of course, has been derived the English "*orbit*." It should be recalled, in this connection, that Latin- medical terms were first employed, at least to an great extent, in the medieval Latin versions of Arabian medical authors. The Arabs themselves, as well as the Romans before them, resorted to the ancient Greek for medical technicalities. American Encyclopedia of Ophthalmology, Vol.7, p.5368

Gerdy, Pierre Nicolas (1797-1856) French surgeon, inventor of lachrymal rhinotomy. Born at Loches, the son of a peasant, he studied at Paris under great difficulties. In 1825, however, he was appointed hospital surgeon, in 1833 professor of external pathology, and, in 1837, of clinical surgery. He wrote on numerous subjects: anatomy, physiology, ophthalmology, philosophy, painting and sculpture. His ophthalmologic writings are as follows: 1. *Expériences sur la Vision* (1840). 2. *Recherches sur l'Unité de la Perception Visuelle* (1840). 3. *Historique sur les Travaux sur la Vision* (Bulletin de l'Acad. de Méd., 1840). 4. *Remarques sur la Vision des Somnambules*. 1841; (German trans., Quedlinburg, 1842). 5. *Sur la Formation d'un Canal Artificiel dans les Cas d'Obliteration du Canal Nasal* (Jour. des Connais. Méd.-Chir. 1848). American Encyclopedia of Ophthalmology, Vol.7, p.5368-5369.

Gerold, Jacob Hugo (1814-1898) German ophthalmologist. The surname is also written "*Gerson*". A well-known ophthalmologist of Aken-on-the-Elbe. He was born at Aken and twenty-one years thereafter received his professional degree at Berlin. For fourteen years he practised in Agen, then removed to Delitsch, in order to accept an appointment as County Physician. Three years later, however, he returned to Aken, where he continued to reside and to practise until his death. Among his more important writings are the following: 1. *De Chymificatione artificiosa* (Graduation thesis, 1835). 2. *Über Periphakitis* (Casper's Wochenschrift, 1845). 3. *Die Lehre vom Schwarzen Staar und dessen Heilung* (Magdeburg, 1846). 4. *Be- oder Empfohlener Studien-plan für Mediciner* (Magdeburg, 1846). 5. *Grundlinien zu einem Lichtmesser behufs der Nachbehandlung des Grauen Staars*, etc. (Magdeburg, 1848). 6. *Die Nervöse Augenschwäche und ihre Behandlung* (Halle 1860). 7. *Ophthalmologische Studien. Der Lichtmesser für Augenkrankenzimmer*, etc. (Quedlinburg, 1862). 8. *Ophthalmologisch-klinische Studien. Neue Folge. Zur*

Therapeutischen Würdigung Farbiges Diopter (Giessen, 1867). 9. *Die Ophthalmologische Physik und ihre Anwendung auf der Praxis* (Vienna 1869-1870). American Encyclopedia of Ophthalmology, Vol.7, p.5369-5370. Albert.

Gerson, Georg Hartog (1788-1843) German surgeon of some importance in ophthalmology. Born at Hamburg, son of the famous obstetrician, Joseph Gerson, and brother of two physicians, he studied medicine at Berlin and Göttingen, at the latter institution receiving the medical degree in 1810. His dissertation on this occasion was entitled "*De Forma Corneae Oculi Humani deque Singularis Visus Phenomeno*," one of the earliest accounts of astigmatism. (See Thomas→Young, in this work.) For a time he served as surgeon in the German army, and was present at Waterloo. In 1816 he settled in Hamburg, and was soon a successful practitioner. He founded in 1819 the "*Hamburg'sches Magazin für die Ausländische Literatur der Gesammten Heilkunde*," on which he was a collaborator till 1835. In 1833 he was made Professor of Anatomy at the newly constituted Anatomico-Surgical College in Hamburg. After the death of his wife he suffered severely from angina pectoris, and, Dec. 3, 1843, died suddenly of this disease, immediately after he had finished the performance of an enterotomy. American Encyclopedia of Ophthalmology, Vol.7, p.5370.

Gerson, Jacob Hugo see **Gerold**.

Gescheidt, Anton. German ophthalmologist. He received his medical degree at Leipzig in 1831, presenting as thesis "*De Colobomate Iridis*." His most important writings are: 1. *Die Entozoen des Auges. Eine Naturhistorisch-ophtho-nosologische Skizze* (von Ammon's Zeitschrift für Ophthalmologie, 1833). 2. *Die Irideremie, das, Iridoschisma und die Corectopie, die drei Wesentlichen Bildungsfehler der Iris* (von Graefe und von Walther's Journ. 1835). 3. *Beiträge zur Pathologie und Therapie der Epidemischen Cholera* (Dresden, 1842). American Encyclopedia of Ophthalmology, Vol.7, p.5370-5371.

Gettes, Bernard C. (1912-1973) American ophthalmologist. He obtained his B.S. in 1932 and his M.D. in 1936 from Temple University. He interned at Saint Joseph's Hospital, Philadelphia, and received graduate ophthalmic training at the Massachusetts Eye and Ear Infirmary. He served his ophthalmic residency at the Boston City Hospital, 1938-1940. He served during World War II as Lieutenant in the United States Navy. He was chief ophthalmologist at various times at Saint Joseph's Hospital, the Stetson Hospital and Philadelphia General Hospital. He served as chief of refraction of Wills Eye Hospital from 1946 through 1955, he started in 1940 as a clinical assistant and became attending surgeon in 1967 and president of the medical staff in 1971. Gettes was nationally recognized for his textbook on refraction (1957 and 1965) and for the volume on refraction he edited for The International Ophthalmologic Clinics in 1965. AJO 1973,76:401

Gibril al-Kahhal (9th Century AD). Oculist to the Caliph, Al-Mamun. The following story concerning Gibril is from Usaibia, as repeated by J.→Hirschberg: "Jusuf b. Ibrahim said: Mamun found the hand of the oculist Gibril especially light; never had anyone observed a gentler hand for the eye. He prepared instruments for rubbing up and rubbing in the collyria and collyrium grinders and presented them to the Caliph. Gibril was the first who came to him after he had said the early prayer and washed his lids and anointed his eyes. This he did again as soon as Mamun had finished his midday sleep. For this he received 1000 drachma monthly. Later he fell into disfavor. I asked him on what ground. Then he related to me that the chamberlain Husain had become sick and that Jasir his brother, could not visit him, because of being occupied with his own duties about Mamun's door. Directly Gibril stepped out. Then Jasir asked me concerning the condition of Mamun; I answered that the Caliph slept. Then Jasir seized upon the opportunity and visited his brother. But, before his return, Mamun was awake, and asked for the ground of his absence. Then said Jasir, it was told to me that the Ruler of the Faithful was sleeping. Who told thee that? "Gibril." Then Mamun sent for me and said: O Gibril! Have I appointed thee to be mine oculist or to be the publisher of news concerning me? Then I reminded him of my services. He, however, said: Verily, he has services. Therefore I shall continue for him his monthly stipend, limited to 150 dirhem. But to the court he will no more be admitted. And no more did Gibril serve Mamun until his death. American Encyclopedia of Ophthalmology, Vol.7, p.5377-5378.

Gibril b. Ubaid-Allah (AD 920-1006) A little known physician of Schiraz and Bagdad, body physician to the Sultan, Professor of Therapeutics and Natural Sciences, in the New Bagdad Hospital, and author of numerous works on general medicine. His only ophthalmic writing was "*A Circular Letter concerning the Nerves of the Eye*". American Encyclopedia of Ophthalmology, Vol.7, p.5378.

Gibson, Benjamin (1774-1812) English ophthalmologist born in Newcastleupon-Tyne, who studied medicine in London and in Edinburgh. From 1799 he practiced in Manchester as surgeon, ophthalmologist, and lecturer on anatomy. He wrote: *Practical observations on the formation of an artificial pupil* London 1811. Albert

Gibson, John Lockhart (1860-1944) Australian ophthalmologist, born at Ipswich, Queensland, Australia. His education was at the Ipswich Grammar School and his medical training was from Edinburgh, Scotland. He had a brilliant academic career in Edinburgh and deputised for Professor Rutherford in giving the lectures in physiology when the latter was taken ill. He put in post-graduate classes in London, Berlin and Vienna before returning home. He was offered a post as physiologist in one of the London medical schools, but preferred to return to the land of his birth. He began in general practice in Brisbane. He was on the staff of the hospital for sick children but a breakdown in health put him out of service for a year and a half and he decided to give up general practice and confined himself to ophthalmology. Here he at once made his mark and his work with Dr. Jefferis Turner on ocular plumbism was of the greatest importance. In 1915 he was in charge of the ophthalmological department at Mudros and to the end of his life was active in the interests of repatriated soldiers. For many years also he was a member of the Australasian Medical Publishing Co. He was the author of numerous papers on ophthalmology as well as some earlier ones in anatomy and physiology. He wrote on ocular plumbism in children in the Brit J.Ophthal in 1931. Gibson died while president of the Ophthalmological Society of Australia. BJO 1945,39:219-220.

Gibson, John Mason (?-?) American surgeon and early ophthalmologist. His life-dates are unknown. He became a member of the "Faculty" of Maryland in 1825, and published, in 1832, a book entitled "*Condensation of Matter upon the Anatomy, Surgical Operations and Treatment of Diseases of the Eye*" Baltimore 1832. This was declared by the author himself to be only a compilation. It was, however, written in a dry and obscure style, which rendered almost valueless its ill-selected and ill-assorted matter. It was, however, the second American work on ophthalmology, and therefore deserves to be mentioned. American Encyclopedia of Ophthalmology, Vol.7, p.5378. Albert

Gibson, William (1788-1868) American surgeon. He was not only the *first* in history to tie the common iliac artery in the living human subject, but he is also of special interest in ophthalmology, both because of his ability as an operator on the eye and also because of the claim which has frequently been made for him that he was the first to perform an operation for strabismus. Born in Baltimore, he received the degree of A.B. at Princeton College in 1806. Deciding to study medicine, he read for a time with Dr. John Owen, of Baltimore, and in 1806 attended certain lectures at the University of Pennsylvania. For the next three years he studied in Edinburgh, where he received the medical degree in 1809. Proceeding to London, he studied with Astley Cooper, who was very fond of him. Entering the English army in 1808, he participated in some of the hardest fighting of the Peninsular War, being present, in fact, at the battle of La Coruna, where his friend, Sir John Moore, was killed. He was present at the Battle of Waterloo, in which he was slightly wounded. In 1810 he sailed for America. Settling in his old home, Baltimore, he assisted, in 1811, in founding the Medical Department of the University of Maryland. He himself was professor of surgery in the new school, though only twenty-three years of age. The following year he tied the common iliac artery- the greatest achievement of his life. He resigned his chair at the Baltimore School in 1819, and shortly afterward moved to Philadelphia, where, after the retirement of Philip Syng Physick, he was appointed to the chair of surgery in the University of Pennsylvania. Here for nearly thirty years he taught and practised with great success. In 1855 he retired from his teaching position. Gibson is often declared to have preceded even Dieffenbach in the performance of the cross-eye operation. Thus, →Hubbell, in his *Ophthalmology in America.*, p. 58, says: "*He was the first surgeon to perform the operation for convergent strabismus, which was afterward*

made so popular by Dieffenbach. Unfortunately, he did not record his operation in time to receive due credit for priority." Still further, in the same work, i. e., at p. 110, Hubbell continues: "In times past, as well as today, there have been many evidences of great surgical originality and insight on the part of Americans. In some instances they have been shown by suggestions, in others by demonstrating important procedures and devices. When Dieffenbach's operation, for example, had been made public, it was found that the same operation had long before been suggested and even performed in this country. The great misfortune was that the genius of our American surgeons had not always been put more fully into light and recorded". American Encyclopedia of Ophthalmology, Vol. 7, p. 5378-5384.

Gierl, Matthias (?-?) German surgeon and ophthalmologist, whose life-dates are unknown. He received, however, his medical degree at Landshut in 1817, and afterwards practised at Augsburg and Lindau. He wrote "*Das Hypopion oder Eiterauge und seine Behandlung*" (Augsburg, 1825; Ital. transl. by Schönberg at Naples, 1826) and "*Über die Resorption der Cataractösen Linse in der Vorderen Augenkammer*" (Bayerische Annalen, vol. 1). American Encyclopedia of Ophthalmology, Vol. 7, p. 5384.

Gifford, Sanford Robinson (1892-1944) American ophthalmologist, son of Harald Gifford, also an well known ophthalmologist. He served as first-lieutenant in the first World War and then returned to Omaha where he joined his father in practice. In 1929 he became Professor and Chairman of the Department of Ophthalmology at Northwestern University Medical School. Gifford was a prolific writer and was associate editor of the *Archives of Ophthalmology*. He wrote "*Handbook of Ocular Therapeutics*" which became an authoritative treatise on the treatment of eye diseases, and *Textbook of Ophthalmology*, 1938, 6th ed. 1957 One of his principal interests was the role of fungi and higher bacteria in the production of eye disease. He elucidated with J.M. Patton the probable cause of agricultural conjunctivitis. The following are examples of the papers he published: *Biochemistry of the lens*. (with Drs. J. E. Lebensohn and I. S. Puntenney) : Arch. of Ophthal, 1932, 8:414 and Am. J. Ophthal 1933:16,1050; *Visual sensation produced by roentgen and radium rays*. (with E.E. Barth): Arch. of Ophthal 1934, 11:81. 554; *Reaction of buffer solutions and of ophthalmic drugs*. Arch of Ophthal, 1935, 13:78; *Filtration experiments with the virus of inclusion blennorrhoea*. (with E. B. Tilden): Arch of Ophthal, 1936, 16:51; *Tendon transplantation for paralysis of the external rectus muscle* Arch of Ophthal, 1940, 24; *Central angiospastic retinopathy*. Arch of Ophthal, 1939, 21. BJO 1944; 28:315-316. JPW

Gillet de Grandmont, Pierre Anatole (1834-1894) French ophthalmologist. Born in Paris, he received his professional degree at the university of that city in 1864. He was ophthalmologist to the Educational Institute of the Legion of Honor, and General Secretary of the Society of Practical Physicians. His most important writings are as follows: 1. *Cure Radicale des Tumeurs et Fistules Lacrymales* (Paris, 1860). 2. *De l'Examen Ophthalmoscopique pour le Diagnostic des Tumeurs de l'Encéphale* (Paris 1861). 3. *Pilocarpine dans les Affections Oculaires* (Paris, 1878). 4. *Détermination de la Sensibilité de la Rétine aux Impressions Lamineuses Coloriées* (Paris, 1881). 5. *Des Courants Electriques Continus Appliqués au Voisinage de l'Oeil* (Paris, 1883). 6. *Deux Formes Nouvelles de Kératite* (Paris, 1888). 7. *Perioptométrie et Chromotopsie* (Paris, 1888). American Encyclopedia of Ophthalmology, Vol. 7, p. 5384

Gillot, Joseph François de Paule (1792-1868) French military surgeon, of some slight ophthalmologic importance because of his "*Sur les Aveugles et les Sourds-muets de la Ville de Metz*". Born at Robécourt, he became a military surgeon in 1809, was engaged in military service for several years, and received his medical degree in 1817. He practiced successively at Medonville, Neufchâteau and Metz. American Encyclopedia of Ophthalmology, Vol. 7, p. 5384

Gilmore, Arnold Plummer (1851-1906) American ophthalmologist of Chicago, Illinois, during the period 1880 till 1905. He was a native of Pennsylvania, born near Philadelphia. He attended preparatory school at an institution near Pittsburgh and went, thence to Trinity College, Hartford, Conn. While in his junior year, during a vacation, he was accidentally shot when hunting and lay for many months in slow recovery. During that trying period he decided to adopt the profession he later followed and honored. He matriculated at

Jefferson Medical College, and after graduation there practiced for a short time in Philadelphia, but feeling the need of a wider knowledge, went to Germany and studied for two years. He came to Chicago in the early eighties and soon took a prominent place in the professional and social life of that city. American Encyclopedia of Ophthalmology, Vol. 7, p. 5384

Gimbernat, Don Antonio (1734-?) Spanish surgeon, who discovered the so-called "*Gimbernat's ligament*" (which forms the inner boundary of the upper opening of the crural canal), who invented the treatment of aneurysm by graduated compression, and who was little interested in ophthalmology. Born at Gambriels, Tarragona, Spain, he studied at Cadiz, became professor of surgery at Barcelona, and finally removed to Madrid. Here he became body-surgeon to the King, Charles III. In 1787 he founded the College of Surgeons at San Carlos, and was for many years its director. His most important writing is "*Nuevo Metodo de Operar en la Hernia Crural*" (Madrid, 1793)[GM 3579]. In this work it was that he *first* described the ligament with which his name is still associated. According to →Hirschberg, he read at Paris in 1800 a paper on corneal ulcers. These affections he divided into two kinds: A superficial, which is secretory, and a deep, which is foul. The former he treated chiefly with an aluni wash; the latter, with a solution of potassium carbonate. According to the same authority, Gimbernat, when 78 years of age, was successfully operated on for double-sided cataract by Don José Rives, of the College of San Carlos; but, the very night that followed the operation, the impatient patient, removing his bandages, put his eyes to first one test and then another, with the result that one of the eyes was blinded completely and the other to a great extent. American Encyclopedia of Ophthalmology, Vol. 7, p. 5386

Gimblett, Charles Leonard (1890-1957) British ophthalmologist. Gimblett was born the only son of Robert Wheddon Gimblett of Somerset, and was educated at Clifton College and at Gonville and Caius College, Cambridge, where he took the Natural Sciences Tripos. He obtained his clinical training at St. Thomas's Hospital, qualifying in 1914. He graduated M.B., B.Ch., the following year and entered the Royal Navy, where he subsequently had charge of the eye departments of the Royal Naval Hospitals at Portland and Chatham. He graduated M.D. in 1918, and became M.R.C.P. in 1919, and F.R.C.S. in 1922. He returned to St. Thomas's Hospital when the war ended and held an impressive series of house appointments including senior house surgeon in the Eye Department, where he came under the influence of Fisher and Hudson. He was appointed honorary ophthalmic surgeon to the Royal Northern Hospital and honorary assistant surgeon at the Royal Westminster Ophthalmic Hospital in 1923; 5 years later he was appointed full surgeon at the latter and gave up his appointment at the Royal Northern. He became senior surgeon at the Royal Westminster Ophthalmic Hospital in 1947 just before the amalgamation with Moorfields and the Central London Hospital. He was also elected Vice-President of the Ophthalmic Section of the Royal Society of Medicine. In his earlier years he worked as chief clinical assistant at Moorfields where he came in contact with Claud→Worth, whose teaching on squint impressed him deeply and led to a permanent interest in orthoptics and the treatment of squint. The outcome was the establishment of the Orthoptic Department at the Royal Westminster Ophthalmic Hospital in 1930 with Miss Maddox as orthoptist and himself as surgeon-in-charge. A training school for orthoptists was started and Gimblett realized the necessity of placing the training on a sound footing. He was instrumental in obtaining recognition for orthoptists as Medical Auxiliaries, and became the first chairman of the British Orthoptic Board, which was formed in 1934 to control the standard of training, hold examinations, and grant diplomas. BJO 1957,41:257

Gimelle, Pierre Louis (1790-1865) French military surgeon, who devoted considerable attention to diseases of the eye. Born at Saint Bonnet Alvert (Corrèze), he became a military surgeon in 1808, was engaged in military service for several years, was present at the battle of Waterloo, received the Doctor's degree at Paris in 1818. His only ophthalmologic writing was "*Notice sur la Nature et le Traitement de l'Iritis.*" American Encyclopedia of Ophthalmology, Vol. 7, p. 5386

Gioppi, Giannantonio (?-1872) Italian ophthalmologist, the date of whose birth is not known, but who practised at Padua. Gioppi's writings are: 1. *Storia di un Amaurosi*

(Padua, 1853). 2. *Resoconto ed Osservazioni Pratiche Raccolte nella Clinica Oculistica dell'I.R. Università di Padova* (Padua, 1858).3. *Cenni Nosologico-Terapeutici sulle Congiuntiviti Contagiose* (Padua, 1856). American Encyclopedia of Ophthalmology, Vol.7,p.5386-5387.

Giorgi, Giuseppe de (1781-1837) Italian surgeon, who seems to have devoted considerable attention to ophthalmology. He was professor of surgery at Imola. His only ophthalmologic writing was entitled *Mem. sopra un Nuovo Istromento per Operare le Cattaratte e per Formare la Pupilla Artificiale* (Imola 1822). American Encyclopedia of Ophthalmology, Vol.7,p.5387. Albert.Hirsch.

Gipson, Ilene K. (1944-) American female cell biologist, a leading researcher in ocular surface biology. She graduated from Drury College Springfield, MO with B.A. in Biology, then studied at the Graduate School of the University of Arkansas with Ph.D. granted in 1973. She served as Assistant Professor at the Department of Ophthalmology, University of Oregon Health Sciences Center (1976-1979), then Assistant Professor of Ophthalmology (1979-1985), as Associate Professor (1985-1997) and Professor of Ophthalmology (Cell Biology) (1997-) of Harvard Medical School. She holds joint appointment as the Senior Scientist, Schepens Eye Research Institute since 1983. She serves as a contributing reviewer to many scientific journals, e.g. Invest. Dermatol. Invest. Ophthalmol Vis. Sci. exp. Eye Res. Arch. Ophthalmol., Cell Tissue Res. Proc. Natnl. Acad. Sci. J. histochem. Cytochem. and J. Cell Biol. She has been Invited Lecturer and Named Lecturer to many Universities in the U.S. and abroad, and keynote speakers at many International Conferences. Her early work focused on corneal epithelial wound healing, then centered on anchorage of the epithelium to the stroma. Her work contributed to the understanding of the basic cell biology of anchoring cell junctions. In the late 1980s, her work expanded to include studies of the molecular structure and function of mucins of the ocular surface and their role in tear film stability and dry eye syndrome. Some examples of her many original publications embrace "Alteration of mucin in human conjunctival epithelia in dry eye. Invest. Ophthalmol. Vis. Sci. 39: 2602, 1998", "Matrix metalloproteinases (MMPs) in epithelia from human recurrent corneal erosion. Invest. Ophthalmol. Vis. Sci. 49: 1266, 1999" and "Developmental expression of mucin genes ASGP(rMuc4) and rMuc5AC by the rat ocular surface epithelium. Invest. Ophthalmol. Vis. Sci. 40: 1944, 1999". She also has written many educational review articles on her areas of research. She holds patent of Monoclonal Antibody (H185) to Ocular and Vaginal Surface Epithelium. For the excellence of research, she received a Research Career Development Award from the National Eye Institute in 1978, an Alcon award in 1984, the MERIT Award from the National Eye Institute in 1989, and an honorary doctoral degree from her alma mater, Drury College, in 1999. In addition to research activities, she teaches medical students at Harvard Medical School and has been active in training research fellows. Dr.Gipson served as head of the Cornea Ocular Surface group at Schepens Eye Research Institute from 1985-1997 and has been actively involved in ARVO and ISER. In addition to her interests in science, she is an avid hiker, birdwatcher and gourmet cook.(Schepens Eye Research Institute, 20 Staniford Street, Boston, MA 02114, U. S. A. phone:+1-617-912-0210; fax:+1-617-912-0126; e-mail: gipson@vision.eri.harvard.edu)



Marc Antoine Louis Félix
Giraud-Teulon

Giraldès, Joachim Albin Cardozo Cazado (1808-1875) French anatomist and surgeon, of Portuguese descent and birth, who paid considerable attention to diseases of the eye. Born at Porto, he received his early education in Madeira, his medical training, however, at Paris, where he graduated in 1836. He died in Paris, Nov. 27, 1875. His ophthalmologic writings are as follows: 1. *Etudes Anatomiques, ou Recherches sur l'Organisation de l'Oeil, Considérée chez l'Homme et dans quelques Animaux* Paris 1836 (Graduation Thesis; 7 Plates).2. *Rech.sur la Disposition Croisée des Fibres de la Rétine chez les Cephalopodes* (Bull.de la Soc. Philos., 1845). 3. *De la Fève de Calabar* (Paris 1863).4. *Sur un Cas de Cataracte Double chez une Jeune Fille de 15 Ans* (Paris 1865) 5. *Notice sur la vie de Sir Benjamin C. Brodie* Paris 1863.American Encyclopedia of Ophthalmology, Vol.7,p.5387. Albert. Hirsch 2, 560-562

Giraud-Teulon, Marc Antoine Louis Félix (1816-1887) born in La Rochelle, France. He first studied in polytechnical schools of Paris and Metz, later studying medicine receiving his M.D. in 1848 at Paris where he practiced ophthalmology. He became famous because

of his invention of a binocular ophthalmoscope (by attaching a Brewster prism stereoscope behind the hole of a concave mirror). He wrote mainly on the physiology and pathology of vision: *Physiologie et pathologie fonctionnelle de la vision binoculaire* Paris 1861; *Leçons sur le strabisme et la diplopie* 1863; *De l'oeil; notions élémentaires sur la fonction de la vue* Paris 1867; *Instruction pour l'emploi de l'échelle régulièrement progressive destinée à servir à la mesure exacte des différents degrés de netteté et d'étendue de la vue distincte* Paris (not dated) *Des troubles fonctionnels de la vision dans leurs rapports avec le service militaire* Paris 1875; *La vision et ses anomalies; cours théorique et pratique sur la physiologie* Paris 1881. *An elementary treatise on the function of Vision and its anomalies* London 1880. American Encyclopedia of Ophthalmology, Vol.7,p.5387. Albert

Girault, Jean. German dentist and ophthalmologist of the early 19th century. He invented an instrument for the introduction of a thread into the lachrymo-nasal canal in the course of the operation for lachrymal fistula. American Encyclopedia of Ophthalmology, Vol.7,p.5387

Glees, Matthias (1907-) German ophthalmologist. MD 1932 Cologne, University lecturer at Cologne University 1942 under →Engelking and →Meissner later vom →Hofe. Professor 1956. Articles in *Klinische Monatsblätter f. Augenheilkunde* and *Graefe's Archiv f. Ophthalmologie*. Kürschners Gelehrten- Kalender 1966,p.681; F. Hollwich Ophthalmologenverzeichnis 1964,p.131.

Gleize, Jean François (Flourished 1763-1811) French surgeon and ophthalmologist of the later 18th century. He was born at Montpellier, became master of surgery, ophthalmologist to the Royal College of Surgery at Orléans, and oculist to the Duke of Orleans and Count of Artois. He was a great braggart, making use of the public journals for the purpose of exploiting his achievements. He wrote: 1. *Nouvelles Observations Pratiques sur les Maladies de l'Oeil et leur Traitement*. (Paris, 1786; Orléans, 1811.) 2. *Règlement de Vie, ou comment doivent se Gouverner ceux qui sont Affligés de Faiblesse de la Vue*. (Orléans, 1787.) 3. *Mémoire sur l'Ophthalmostate de M. Demours*. (*Jour. de Méd., Chirurg. et Pharm.*, 1788.) 4. *Mémoire sur les Avantages du Seciton à la Nuque dans les Ophthalmies Humides ou Invétérées*. (*Op. cit.*, 1789.) 5. *Des Staphylomes*. (*Op. cit.*, 1789.) American Encyclopedia of Ophthalmology, Vol.7,p.5579. Albert.

Goar, Everett Logan (1886-1971) American ophthalmologist, born in Clinton County, Indiana. Goar graduated from Kirklin, Indiana, high school in 1903 and from Indiana University, Bloomington, in 1907. After graduation from Rush Medical College, Chicago, Illinois, in 1909, he served his internship at Chicago's Cook County Hospital from 1909-11. During World War I, Goar became a Major in the Medical Corps. He studied ophthalmology at the New York Eye and Ear Infirmary in 1920 and at the University of Colorado in 1922, and was awarded Doctor of Ophthalmology degree from Colorado University in 1925. Goar gave generously of his time and efforts to each of the many organizations to which he belonged. He served as president of the Harris County Medical Society, of the Houston Academy of Medicine, and of the Texas Society of Ophthalmology and Otolaryngology, and of the American Ophthalmological Society, 1954-55. He served as Vice President of the American Academy of ophthalmology and Otolaryngology. He was Chairman of Section on Ophthalmology of the American Medical Association. He was a member of American Board of Ophthalmology for nine years and Chairman of the Board, 1947-48. He was Director of the National Society for Prevention of Blindness, 1952-1960, and Chairman of the Professional Committee of the Texas Society for Prevention of Blindness. For his role in organizing the Texas Society, he received the Dana Gold Medal award in 1962. Goar was one of the men instrumental in the moving of Baylor University College of Medicine from Dallas to Houston, Texas, in 1943. He was Professor of Ophthalmology and Head of the Department from 1943 to 1957, as a teacher, for many years he helped give courses at the Academy on slit-lamp examinations and wrote many articles on various subjects in this field, including his "*Handbook of Ophthalmology*" (Mosby 1948) for medical students. AJO 1971,72:214-215.JPW

Gobee, Carolus (1804-1875) German physician born in Bruchsal, Germany. He studied medicine at Heidelberg, Bonn (M.D., 1831), and Leiden (M.D., 1832). He was a medical officer in the Dutch military service until 1859, when he retired he started a private practice in Amsterdam; his last years were spent in Arnheim. Gobée was editor of two

Dutch journals of clinical medicine and wrote in ophthalmology: *Die Sogenannte ägyptisch-contagiöse Augenentzündung* Leipzig 1841. Albert

Godman, John D. (1794-1830) American surgeon, who *first* reported a case of so-called "inverted vision." Born at Annapolis, MD., Dec.30, 1794, he lost his mother when he was only two years old, and his father in less than three years later. In 1815 he began to live and study with a Doctor Luckey, of Elizabethtown, Pa., but, five months later, moved to Baltimore, where he lived and studied with Dr. Davidge, of the University of Maryland. In 1818, at this institution, he received his medical degree. He practiced for a time in New Holland, but soon moved to Philadelphia. In 1821, on the invitation of Dr. Daniel Drake, he moved to Cincinnati in order to accept the chair of surgery in the Medical College of Ohio. After a single lecture there occurred a quarrel in the faculty, and he resigned. He established then *The Western Quarterly Reporter*, which lived for a year and a half. In 1822 he returned to Philadelphia, and, taking rooms, began to deliver a course of private lectures on anatomy. In a very short time his reputation was established. He also wrote a number of brilliant books and articles on subjects connected with natural history, of which the most important is *American Natural History* (3 vols., 1826). He was one of the editors of *The American Journal of the Medical Sciences* from 1824 until his death. Godman's most important ophthalmologic article is entitled "*Note of an Interesting Fact Connected with the Physiology of Vision.*" from which I copy the following passage, from Hubbell's "*Ophthalmology in America*" (p. 123): "*The following instance communicated to me by Reuben Peale, Esq., the uncle of the young man, is the only one with which we are at present acquainted, where the inversion of objects on the retina was productive of inaccuracy of judgment as to position notwithstanding all the other senses were in their ordinary condition, and the individual had arrived at the age of 7 years. "When his father, who was a distinguished artist, began to give him lessons in drawing, he was very much surprised to find that whatever object he attempted to delineate, he uniformly inverted. If ordered to make a drawing of a candle and candlestick set before him, he invariably drew it with the base represented in the air and the flame downwards. If it was a chair or a table he was set to copy, the same result was the consequence; the feet were represented in the air, and the upper part of the object, whatever it might be, was turned to the ground. His father, perplexed at what he considered the perverseness of the boy, threatened, and even did punish him for his supposed folly. When questioned on the subject the youth stated that he drew the objects exactly as he saw them, and as his drawings were in other respects quite accurate, there was no reason to doubt his statement. Whenever an object was inverted previous to his drawing it, the drawing was made to represent it in its proper position, showing that the sensations he received from the eye, were exactly correspondent with the inverted pictures formed on the retina. This condition of his vision was observed to continue for more than a year, when his case gradually ceased to attract attention-which was when he was about 8 years old. Since that time he has imperceptibly acquired the habit of seeing things in their actual position."* Godman married, in October, 1821, a daughter of Peale, the artist. He died only 36 years of age. American Encyclopedia of Ophthalmology, Vol.7,p.5597-5599



Johann Wolfgang von Goethe

Goethe, Johann Wolfgang (1749-1832) German poet, statesman and scientist, born in Frankfurt am Main. His "*Zur Farbenlehre*" Tübingen 1810, 2vols.+ atlas and his *Beyträge zur Optik*, Weimar 1791-92 (2 parts in one volume) makes him interesting for ophthalmologists and opticians. Goethe studied at the universities of Leipzig and Strasbourg and became famous aged twenty-five when his *Leiden des Jungen Werthers* appeared. American Encyclopedia of Ophthalmology, Vol.7,p.5599-5601. Albert.

Goh, Jon (1960-) Singapore ophthalmologist, practicing as Consultant at the Singapore National Eye Centre. He graduated from the National University of Singapore in Medicine and Surgery in 1984 and trained in Ophthalmology in Singapore under Prof Arthur Lim before obtaining his Fellowships in Ophthalmology from the Royal College of Surgeons in Edinburgh (1990), and the Royal College of Ophthalmologists in the United Kingdom (1990). His initial interest in small incision cataract surgery saw him pioneering phacoemulsification techniques and the use of topical anaesthesia with combination minims amethocaine and endocapsular non-preserved lignocaine. His other efforts include the early use of foldable multifocal implants and the introduction of the endocapsular tension ring in the region. He has presented several scientific papers in this field at

international meetings and recently participated in the '99 International Medical Panel for Cataract Treatment. He is active in promoting the benefits of topical anaesthesia for phacoemulsification and in the teaching of Residents and Fellows in phacoemulsification and foldable lens implantation. Recently, his interest has extended into the field of Refractive Surgery, having trained under Prof Ioannis Pallikans in Greece for his Certification in Refractive Surgery from the European Society of Cataract and Refractive Surgeons (1998). He is a life member of the Singapore Association of the Visually Handicapped and a Fellow of the Academy of Medicine, Singapore. He continues to actively explore new vistas in clinical practice and research in Cataract and Refractive Surgery. (Dr Jon Goh, MBBS (S'pore), FRCS(Ed), FRCOphth (UK), FAMS, Consultant Ophthalmologist, Singapore National Eye Centre, 11 Third Hospital Avenue Singapore 168751. Phone: 65-2277255; Fax: 65-2277290; e-mail: jon_goh@pacific.net.sg) (SM)

Goldberg, Morton F. (1937-) American ophthalmologist, with University education at Harvard College (magna cum laude; Phi Beta Kappa) and medical education at Harvard Medical School (cum laude; alpha omega alpha), graduating in 1962. During this time, he worked as a medical student in the laboratory of Professor David Cogan. Following a medical internship at the Peter Bent Brigham Hospital in Boston, Goldberg became a resident at the Wilmer Eye Institute at Johns Hopkins University School of Medicine in Baltimore under the direction of Professor A. Edward Maumenee and Professor Frank Walsh. He completed residency, including the Wilmer Chief Residency, in 1967 and spent 2 years thereafter as an ophthalmic consultant in the United States Public Health Service. He then completed a 6-month fellowship in medical genetics under the direction of Professor Victor A. McKusick. At the age of 32, he became Professor and Head of the Department of Ophthalmology at the University of Illinois College of Medicine in Chicago, a position he held for almost 20 years. In 1989, he returned to the Wilmer Eye Institute as its fifth Director and the William Holland Wilmer Professor of Ophthalmology and Ophthalmologist-in-Chief at Johns Hopkins Hospital. Goldberg received an honorary fellowship in the Royal Australian College of Ophthalmologists in 1982 and the Doctoris Honoris Causa degree from the University of Coimbra in Portugal in 1995. He also received the inaugural Professor Ida Mann Medal from the University of Oxford in 1980 and the Arnall Patz Medal from the Macula Society in 1999. He also received the Honor Award and Senior Honor Award from the American Academy of Ophthalmology, the President's University Scholar Award from the University of Illinois, the Alcon Research Institute Award, the Derrick Vail Award from the Chicago Ophthalmological Society, and the Mildred Weisenfeld Award from the Association for Research in Vision and Ophthalmology (ARVO). He was elected to the Membership of the Institute of Medicine of the National Academy of Sciences of the United States in 1998. Goldberg served as President of the ARVO, the Association of University Professors of Ophthalmology, the Macula Society, and the Chicago Ophthalmological Society. He also has served as Chairman of the Alcon Research Institute Award's Committee and the Thesis Committee of the American Ophthalmological Society. He became a member of the American Ophthalmological Society in 1978 with his thesis entitled, *The Diagnosis and Treatment of Sickled Erythrocytes in Human Hyphemas*. Trans. Am. Ophthalmol. Soc. 76: 481, 1978. He has given over 20 visiting professorships and over 32 memorial or named lectureships, including the 54th Edward Jackson Memorial Lecture of the American Academy of Ophthalmology in 1997 (Persistent fetal vasculature (PFV): an integrated interpretation of signs and symptoms associated with persistent hyperplastic primary vitreous (PHPV). Am. J. Ophthalmol. 124: 587, 1997), the inaugural Professor Eugene Chan Lecture in Hong Kong in 1995 and the inaugural Professor Ida Mann Lecture in Oxford in 1980 (Disease affecting the inner blood-retinal barrier in Gunha-Vaz, J.G. (ed.) *The Blood-Retinal Barriers*. p. 309-363, Plenum Press, New York, 1980). Goldberg has also served on several editorial boards, including the Editor-in-Chief of *Archives of Ophthalmology* (1984 through 1994). He has also been a member of the editorial boards of the *Journal of the American Medical Association*, *Investigative Ophthalmology and Visual Sciences*, *Ophthalmic Surgery*, *Survey of Ophthalmology*, *Diabetes, Ophthalmic Pediatrics & Genetics*, *The Wilmer Retinal Update*, and *Retina*, and has served as a member of the International Review Committee of the *Japanese Journal of Ophthalmology*. Goldberg's major research and clinical interests have included the following: ocular trauma, inherited and metabolic eye diseases, sickle cell eye disease, diabetic retinopathy, and laser

photocoagulation. He has published approximately 400 original articles, 60 chapters, and 24 editorials on these and related subjects. He also wrote *Genetic and Metabolic Eye Disease* (1974) (Director, The Wilmer Ophthalmological Institute, the Johns Hopkins University School of Medicine, 727 Maumenee Building 600 North Wolfe Street, Baltimore, MD 21287-9278, U. S. A. phone: +1-410-955-6846; fax: +1-410-955-0675, e-mail: mgoldbrg@jhmi.edu) (SM)

Goldhand *see* **Abu Ruh. Bin Mansur bin Abi Abdallah bin Mansur alyamani.**



Hans Goldmann

Goldmann, Hans (1899-1991) Swiss ophthalmologist who was born in the Austro-Hungarian Empire (later Czechoslovakia) in the town of Komotau. He attended a local Catholic school, which engaged a Jewish scholar to instruct Goldmann in religion. Goldmann demonstrated great skill in mathematics and science early in life, and he decided to become an astronomer. His father urged him, however, to “do something practical.” Accordingly, Goldmann went to Prague and studied medicine at the German Charles University, obtaining his degree in 1923. From 1919 to 1924 Goldmann was assistant to Professor →Tschermak von Seyseneck in the Physiologic Institute. His first task was to reassemble a Hering calorimeter. This task stimulated a lifelong interest in optics, physics, and instruments, as well as confirming Goldmann’s suspicion that he was an anomalous trichromat. In 1924, Goldmann became an assistant at the University Eye Clinic in Bern under the direction of Professor August→Siegrist. In 1927 he was appointed Oberarzt and in 1930 Privatdozent at the clinic. Upon the retirement of Siegrist in 1935, Goldmann became professor of ophthalmology and director of the University Eye Clinic. Many years later Goldmann was appointed chancellor of Bern University. He published papers on cataract, retrobulbar neuritis, uveitis, retinopathy of prematurity, aqueous humor dynamics, nyctalopia, dark adaptation, glaucoma, accommodation, perimetry, and diabetic retinopathy. Students and colleagues from many countries went to Bern and were stimulated by the keen intellectual atmosphere that permeated Goldmann’s clinic. Goldmann’s major contribution to ophthalmology was in the development and refinement of instruments, including the slit lamp, colorimeter, bowl perimeter, applanation tonometer, gonioscopes, dark adaptometer, and fluorophotometer. Because of these contributions, Goldmann was one of the foremost ophthalmologists of the 20th Century. In accepting the Proctor Medal from the Association for Research in Ophthalmology in 1959, Goldmann quoted Herodotus that the task of every scholar is “to take and transmit the torch.” Every patient and every ophthalmologist benefitted from his contributions. He wrote: *Zwei Vorlesungen über Biomikroskopie des Auges*, Bern 1954; *Dante Alighieri 1265-1321. Vorträge an der Universität Bern*, Bern 1966; *Vom Geist der Medizin. Universität Bern Dies Academicus 28 Nov 1964*, Bern 1964. *AJO* 1992,113:479-480; *BJO* 1992,p.384; JPW

Goldsmith, Allen (Sir Allen) John Bridson (1909-1976) Scottish ophthalmologist. Allen John Bridson Goldsmith was born in Edinburgh, the son of an Edinburgh physician. He was educated at King William’s College, Isle of Man, and the Middlesex Hospital. He qualified with the Conjoint Diploma in 1931 and took the MB,BS with distinction in medicine and pathology. He held posts at the Middlesex Hospital and was appointed senior Broderip Scholar and awarded the Lyell Gold Medal. In 1933 he passed the FRCS examination, but as he was under twenty-five he had to wait a year before receiving the diploma. In 1935 he was appointed house surgeon at Moorfields Eye Hospital. Two years later he became surgeon and pathologist to the Central London Eye Hospital, holding the appointment until 1948 when he became surgeon at Moorfields. He also served the Middlesex as ophthalmic surgeon. Other hospitals at which he was ophthalmologist were Paddington Green Children’s Hospital, the Royal National Orthopaedic Hospital, and the King Edward VII Hospital for Officers. He was lecturer in ophthalmology at London University and examiner in ophthalmology to the Royal Colleges. A joint editor of *Recent advances in ophthalmology*, he also published papers in specialist and medical journals. He was honorary secretary and member of the Council of the Ophthalmic Section of the Royal Society of Medicine; honorary secretary, member of Council and Vice-President of the Ophthalmological Society of the United Kingdom; Vice-President of the Medical Defence Union; and a member of the editorial committee of the British journal of ophthalmology. From 1952 to 1965 he was Surgeon Oculist to the Royal Household and then became Surgeon Oculist to the Queen, retiring from the appointment in 1974. He was

created CVO in 1962 and KCVO in 1970. He received following titles: CVO 1962; KCVO 1970; MRCS 1931; FRCS 1934; MB,BS London 1931; LRCP 1931. The Times 14 December 1976; Brit. med. J. 1976, 2, 1566 and 1977, 1, 175; Lancet, 1977, 1, 53. LFRCS.

Goldsmith, George Harvey (1868-1940) British ophthalmologist of Bedford. He was the son of Dr. G. P. Goldsmith, of Bedford, who came of an old Suffolk family. Goldsmith was educated at Bedford School (1878-1886) and at Cambridge University, whence he took his B.A. in the Natural Sciences Tripos in 1889. He joined the medical School of St. George's Hospital, qualified at "the Colleges" in 1892, and proceeded to M.B. Cantab. in 1893. His M.D. dated from 1902. At St. George's he was house surgeon, house physician and ophthalmic assistant. His ophthalmological training was continued at the Royal Westminster Ophthalmic Hospital where he was house surgeon and, later, clinical assistant. Goldsmith joined his brother in practice in Bedford and was for a time M.O. to one of the houses of his old school, but his ophthalmological reputation increased so rapidly that he soon confined himself entirely to it. For many years he had an extensive practice in Bedford and its surroundings. At the time of his death he held the post of consulting ophthalmic surgeon to the Bedford County Hospital. He joined the Ophthalmological Society in 1899. To its Transactions he was an occasional contributor, mainly of case reports. Apart from his professional work Goldsmith was an ex-president of the Bedford Historical Society. He was widely read both in archaeology and in general literature and was a good Greek scholar. Later in life he took up the study of Hebrew to enable him to read the Bible in the original. BJO 24,371,1940

Goldzieher, Vilmos (1849-1916) Hungarian Ophthalmologist. Vilmos Goldzieher was born at Kapcseny in Hungary. He was a gifted clinical observer and was probably the *first* to describe the affections known as "*Parinaud's conjunctivitis*"; "*Retinitis Circinata*" and "*Hippel's disease*". He studied medicine in Vienna and in Heidelberg. After taking his doctor's degree, he worked for two years as assistant of Professor Becker. Then he continued his studies in Ophthalmology on a Hungarian fellowship in Berlin, Prague and Leipzig. In 1875 he returned to Budapest and became a practicing ophthalmologist. In 1878 he was appointed Privatdocent to teach the pathology of the eye and in 1895 was awarded associate professor. He received a post in the Red Cross Hospital of Budapest in 1883. In 1895 he was appointed head of the eye Department of the St. John's Hospital, and in 1901, to the St. Rochus' Hospital, where he remained until his death. His international reputation was founded on his merits, and on the fact that he had made good contacts with many specialists in Europe and most of his papers were published abroad. He was also a corresponding member of several West-European Societies of Ophthalmology. The number of his publications is about 120. His chief work was a textbook, entitled '*Die Therapie der Augenkrankheiten*' which was published in Stuttgart, in 1881. The same book ran the second German edition in Leipzig, 1900 and in 1903 it appeared for the first time in Hungarian translation in Budapest. His second significant book was the '*Handbook of ophthalmology*' ('*Szemeszet kezikönyve*') published in Budapest in 1890. He also contributed several chapters to the '*Szemeszet Kezikönyve*' ('Handbook of ophthalmology') edited by E. Grosz and K. Hoor (1909). In 1902 he became the Editor of the second Hungarian Journal of Ophthalmology, called '*Szemeszeti Lapok*' ('Ophthalmological Journal'). He also worked as Ophthalmologist in the Hungarian Institute for the Blind and was deeply interested in the welfare of persons with defective eyesight. He was among the first in Hungary to fight for the foundation of a special school for the blind. In recognition of his services, he was awarded the title of Royal Court Councillor in 1908. Magda Radnòt: Famous Hungarian Ophthalmologists (Budapest 1970) AJO,1:294; B.J.O.1:654

Golovin, S. S. (1866-1931) Russian professor of ophthalmology from Moscow. He was, in his time, the dean of Russian oculists and for years an outstanding figure in international ophthalmology. Golovin's name is probably best known to the American reader in connection with his *combined exenteration of the orbit and accessory nasal sinuses* (Exenteratio orbitosinualis) in the treatment of orbital malignancy, a method described in detail in Wood's "*System of Ophthalmic Operations*" and in the American Encyclopedia of Ophthalmology. This procedure is only one of the many important contributions which link Golovin's name with the progress of orbital surgery in the first thirty years of the 20th century. He originated the method of ligating the orbital veins in pulsating exophthalmos.

He introduced the optico-ciliary neurectomy in absolute Glaucoma. His simple and osseous orbitotomies were still used by many orbital surgeons in the first half of the last century. In the difficult field of plastic restoration of the orbit following its exenteration, Golovin proposed a new method, both simple and effective. His interest in the orbit was not limited to surgery. In a large monograph devoted to optic nerve tumors, he displayed the qualities of an acute clinical observer and of an accomplished pathologist. His report on intradural tumors of the optic nerve presented to the International Congress in 1913 was a turning point in the general conception of this type of orbital neoplasm. He described an hitherto unknown orbital disease which he named "*sclerosis orbitae*". The creative genius of Golovin has manifested itself not only in clinical, but in experimental ophthalmology as well. In 1904 he offered, as the result of ingenious experiments, a new "cytotoxic" theory of sympathetic ophthalmia. With this the foundation was laid for the future anaphylactic interpretation of this disease. His experiments on the sub-vital processes in the isolated eye, performed in the twenties of the nineteenth century, were an interesting attempt to penetrate the mysteries of fundamental "life" processes in the visual organ. To enumerate all the new ideas which were given by Golovin to ophthalmology, would mean to review most of his ninety-five scientific publications. How highly he was esteemed by his European colleagues can be seen from the fact that in 1929, the Russian Ophthalmologic journal celebrated the forty years of his ophthalmologic activities by issuing a special "Golovin" number of the journal. So many ophthalmologists paid their respects to him by sending their contributions that a volume of two hundred and sixty, pages had to be published and still a part of the material had to be transferred to the succeeding issues of the journal. The names of Axenfeld, Morax, Elschnig, Rollet, Terrien, Krückman, Wagenmann, Szily and others who participated in this volume, prove that Golovin's jubileum was an event in European Ophthalmology. In his own country Golovin was more than a research worker of great ability. He was an inspiring teacher, and many of his pupils head the ophthalmic departments in the Medical Schools of his country. For years he was editor of the "Vestnik Oftalmologii", at that time the only ophthalmologic periodical in the Russian language. His textbook on "*The Methods of Examination and Symptomatology of Ocular Diseases*", a volume of nine hundred and sixty pages, was most popular among Russian oculists. AJO 1931,14:836

Gondret, Louis François (1776-1835) A French ophthalmologic charlatan. Born at Auteuil, near Paris, he received his medical degree at Paris in 1803 with the doctoral thesis: *Dissertation sur l'action des purgatifs* Paris 1803.. He was physician at the Third Dispensary of the Philanthropic Society, Physician to the Court of First Instance, etc. He advertised extensively a derivative salve of his pretended invention, called by various names, such as "pommade ou graisse ammoniacale," "caustique ammoniacal," and "liparole ammoniacal." This he pretended would (among other wonderful effects) cure cataract without operation. Gondret wrote: 1. *Observations d'Amaurose* (Paris, 1821). 2. *Observations sur les Maladies des Yeux* (Paris, 1823).3. *Mémoire sur le traitement de la cataracte* Paris 1825 4. *Des Effets de la Dérivation et 2° Appendice à mes Observations sur les Affections Cérébro-Oculaires* (1832; 2 ed., 1833, 3rd ed.1835). 5. *Du Traitement de la Cataracte sans Opération* (1839).6. *Treatise upon a new, expeditious, and safe method of treating cerebro-sensorial affections particularly amaurosis and cataract* London 1840.7. *Du traitement des fièvres intermittentes par le moyen du vide ou ventouse* Paris 1850. American Encyclopedia of Ophthalmology, Vol.7, p.5605. Albert

Gonelli, Giovanni (1610-1664) Also called Gambasius and Gambasio. A blind Italian sculptor of considerable merit. He was born in Tuscany and lost his sight at the age of twenty, and, ten years later, was suddenly seized with a desire to become a sculptor. Besides ideal images, he carved a number of portraits, the most remarkable of which is that of Pope Urban VIII.American Encyclopedia of Ophthalmology,Vol.7,p.5605.

Gonin, Jules (1870-1935) Swiss ophthalmologist. Gonin's early years of study were passed at the College Galliard and later in the Cantonal Gymnasium. He next entered the faculty of Science of the old Academy, then the faculty of Medicine at Lausanne, and later that at Berne.His first introduction to ophthalmology occurred while still an undergraduate when he served as *locum tenens* to the resident officer at the Hôpital de l'Asile des Aveugles, where, in 1896, he became the resident officer. In 1899, after a tour of study in foreign countries, he became chief assistant, and in 1901 second Associate-Surgeon. In

1918 he became Surgeon in Charge of the Asile des Aveugles, and in 1920, on the death of Professor Eperon, Professor of Ophthalmology in the University. Although ophthalmology was his life's work, Professor Gonin had many other interests. He was a great traveller and had explored the whole of Europe as well as Palestine and Egypt. He had the gift of languages: not only was he an adept in all the various dialects of Switzerland but could speak fluently in many other languages including Spanish, Serbian, Modern Greek and Arabic. Even after he had passed middle life he learned new languages. He spoke of this knowledge in terms of the gramophone, saying, that when about to speak English he would put on his English gramophone record. He was one of the founders of the Swiss Ophthalmological Society in 1908, and attended all the meetings with the exception of the last which took place fifteen days before his death. Coming now to his scientific work, without doubt the name of Gonin will always be associated with the cure of detachment of the retina, but his serious work on this subject did not begin until 1918. Before this date, his communications were numbered by the dozen. He gained his laureate at the University by his work on the development of the wings of the butterfly in the chrysalis. The butterfly was always his favourite, and his consulting room was decorated by actual specimens pinned to the ceilings and walls. His thesis for the Doctorate was on the regeneration of the crystalline lens. His aptitude for drawing, and the need he felt for elaborate note taking certainly has made for much of the accuracy which characterized his works. In 1898 he began his ophthalmological publications. At first they had an anatomical and pathological character with an examination of macroscopical and microscopical specimens, or dealt with the bacteriology of ocular affections. Later on, clinical observations played a greater role, one group concerning the annular scotoma of retinitis pigmentosa in which he showed that concentric diminution of the field of vision is often only annular, and that when it is really concentric it is but the terminal stage of an annular scotoma which has reached the periphery. In 1900 Professor →Dufour was entrusted with the re-writing of the large chapter ('*Diseases of the Retina and Optic Nerve*') for the French Encyclopaedia of Ophthalmology, and he collaborated with his devoted pupil Gonin. Thus it happened that Gonin had to take notice of all that had been said or written on diseases of the retina. It was this work that gave birth to his ideas on the causes of detachment of the retina, its pathology, the importance of rents and so on. Gonin also wrote the chapter on amaurosis and amblyopia for the Encyclopaedia. The first work of Gonin on detachment of the retina appeared in 1908, but it was in 1918 that a paper '*The Anatomical Causes of Detachment of the Retina*' conducted oculists to the point they have reached to-day. Thirty-eight publications of greater or less -importance were made by Gonin on this subject between 1918 and 1934, and in 1934 appeared his large book '*Detachment of the Retina*' which crowned his work. It is necessary to go back seventy years earlier in the history of ophthalmology, to the introduction by von Graefe of the curative value of iridectomy for glaucoma, to meet with a discovery comparable with that of Gonin's. BJO1935,19:476-478

Gonzales y Morillas, Don José Maxia (?-?) Cuban pathologist and ophthalmologist of Havana, whose life dates are unknown. He wrote: "*Monografía Oftalmológica ó Descripción de Todas las Enfermedades que Pueden Padecer los Organos de la Vision y Partes Anexas*, (2 vols., Habana, 1848-50). *Lecciones elementales de patologia general* Habana 1860 American Encyclopedia of Ophthalmology, Vol.7,p.5613. Albert.Brit Museum.

Goodland, William An English surgeon of the early 19th century, who practised at Bolsaver, Derbyshire, and Bury, Lancashire. He wrote "*Observations on Purulent Ophthalmia*" (1810).American Encyclopedia of Ophthalmology, Vol.7, p.5613.

Gordon, Bernard de (end 13th-begin 14th century) French physician of Scottish descent, who received his medical education, at the school of Salerno, Italy. The dates of his birth and death are not known. He taught, however, at Montpellier, from 1285 to 1307. He wrote in 1302 (1303?-5?) a work entitled "*Lilium Medicinae*" (Lily of Medicine). This is a kind of medical encyclopedia, including as it does the entire pathology of the human system. In 1377 it was translated into French under the title *La Pratique du Tres excellent Docteur et Maistre en Médecine, Bernard de Gordon, qui l'Appelle Fleur de Lys en Médecine.*" The ocular portion of the "Lilium" includes no surgery at all. Whenever a

surgical matter requires mentioning, Bernardus simply refers us to a "chirurgus literatus et expertus." However, the ocular portion of the "Lilium" is quite an interesting affair. First, it treats of ocular anatomy and physiology, then, in successive chapters, the diseases of the conjunctiva, the cornea, the uvea, those of the eye throughout its entirety, and, finally, those of the lids. What he says in chapter I, about the nature of vision possesses a special historical value. "The animal spirit called the visual, descends by the optic nerves to the eye, where it spreads to the crystalline humor, and then to the interior surface of the eye; it receives there the image of the object, which has been brought [i. e., from without] to the crystalline, in which situation is produced the first modification of colors (mutatio colorum) ; then it carries the representation of the object (simulacrum) as far as to the common sense [intelligence]." Bernard is said to have been the first medical writer to mention the use of spectacles. Of course, the word "medical," in this connection, should be well emphasized. (Roger Bacon it was who, in his "Opus Majus" almost fifty years earlier than Gordon's "Lilium"-first records-so far at least as history shows-the value of convex lenses for those who are old or weak-of-sight.) Gordon, moreover, adds that he knows of a collyrium which renders spectacles unnecessary. His words are indeed of so great historical importance that they are appended here as they stand in the original Latin: "Hoc collyrium est tantae virtutis quod decrepitem faceret legere litteras minutas sine ocularibus." So the printed editions run. Truc and Pansier, however, inform us that, in the manuscripts, the expression employed by Bernardus was not "oculare," but "oculus verrelinus" or "oculus berillinus" i. e., "eye of glass," or "eye of beryl." American Encyclopedia of Ophthalmology, Vol.7, p.5613-5614.

Gorgone, Giovanni (flourished 1st half of the 19th century) Italian surgeon and anatomist of Palermo, the founder of a surgical clinic. He wrote: *Considerazioni pratiche sull'operazione della cateratta col metodo, dell'estrazione* Napoli 1824. *Corso completo di anatomia etc.* (4 vols.) Palermo 1834-41 ; *Lezione sul tessuto encefaloide* Palermo 1834. Albert. Brit Museum

Gosetti, Francisco (1837-1909) Italian ophthalmologist from Merlango near Treviso. He was ophthalmic surgeon at the Civil Hospital Venice. He published different subjects on ophthalmology and was the inventor of a new operation for cataract.

Gotch, Francis (1853-1913) British physiologist. Waynflete Professor of physiology at Oxford University and Fellow of Magdalen College Oxford. Known for his research on retinal functions. He served on the Departmental Committee of the Board of Trade considering tests for vision in the Mercantile Marine. The Ophthalmoscope, London 1913, p.505.

Gough, John. A celebrated blind instructor of sighted pupils. He was born at Kendal, Westmoreland, England, and at the age of two was completely blinded by smallpox. When six years old he was sent to the School of the Society of Friends, where he seems to have advanced more rapidly than any of his sighted companions. He afterwards studied mathematics under a private instructor, a Mr. John Slee. He then became an instructor of sighted pupils, and, in this capacity, is said to have been "the greatest known example". Among the celebrated scholars who once were under his tutelage, were →Dalton, →Whewell, Gaskin, King and Daws. Gough wrote numerous articles on the following subjects: botany, mechanics, statics, hydrostatics, pneumatics, acoustics, electricity, magnetism, zoology, music and scotography. These appeared, for the most part, in *Nicholson's Journal* and the *Memoirs of the Literary and Philosophical Society of Manchester*. Gough died in 1825, aged 68, and was buried in Kendal churchyard. American Encyclopedia of Ophthalmology, Vol.7, p.5616.

Goulard, Thomas (c.1724-1784) French physician, surgeon and ophthalmologist, introducer of "Goulard's Extract," an aqueous solution of the subacetate of lead, and of "Goulard's Cerate," an ointment containing this extract. He was born at Saint-Nicholas-de-la-Grave, near Montauban, France, about 1724, and, at an early age, was appointed demonstrator royal of anatomy and surgery, as well as surgeon-major, at the Military Hospital in Montpellier. In 1740 he became a Fellow of the Academy of Surgery. He seems to have been a man of strongly quackish tendencies. His subacetate solution, to which he gave the name of "Aqua Vegeto-Mineralis," he commended as a well-nigh infallible cure for almost every disease in the nosology, especially for those of the eye and

the urethra. His principal writings are as follows: 1. *Mémoire sur les Maladies de l'Urètre et sur un Remède Spécifique pour les Guérir*. (Montpellier, 1746.) 2. *Lettre de M. Goulard, à M.de la Martinière sur les Bougies pour les Carnosités*. (Montpellier, 1751.) 3. *De la Composition des Bougies*. (Montpellier, 1751.) 4. *Traité des Maladies de l'Urètre, avec le Composition des Différentes Espèces de Bougies propres a les Guérir Radicalement*. (Montpellier, 1752.) 5. *Remarques et Observations Pratique sur les Maladies Vénériennes, etc.* (Montpellier and Pézénas, 1760.) 6. *Traité sur les Effets des Préparations de Plomb et Principalement de l'Extrait de Saturne, Employé sous Différentes Formes, et pour Différentes Maladies Chirurgicales*. (Montpellier, 1760; EnglTrans., London, 1769 and 1775.) 7. *Oeuvres de Chirurgie*. (2 vols., Paris, 1763 and 1767; Liège, 1779.) Goulard also invented a number of surgical instruments. In 1772 he became blind, and, in 1784, he died. American Encyclopedia of Ophthalmology, Vol.7, p.5616-5617.

Gould, George Milbry (1848-1922) American Ophthalmologist. George M. Gould was born at Auburn, Maine. A remote ancestor was a Robert Goold (not Gould) who, in 1663, emigrated to Hull, Mass., from Somerset, England. In his early childhood, his own mother having died, George moved with his father and stepmother to Salina, Ohio. Here, and at Athens, Ohio, he studied in public and private schools. At the age of twelve, however, he enlisted in the Northern army of the Civil War as a drummer boy, serving in that capacity from 1861 to 1862. Later, at 16, he reenlisted, this time as volunteer, and served from 1864 to 1865. He received an A.B. at Ohio Wesleyan University in 1873, and an A.M. (hon.) from the same institution in 1892. At age 25 he was enrolled at the Harvard Divinity School, but preached for the Unitarian Church only a few months; then spent several years studying in Europe. He returned home a very well educated, bookish young man. At age 28 he opened a bookshop and fine arts store in Chillicothe, Ohio, but he was troubled by headaches and was exasperated that reading, his favorite pastime, made him uncomfortable. Doctor after doctor was consulted, including some eminent ophthalmologists in Europe. He had many different pairs of glasses but none of them solved his problem. He briefly considered becoming an oculist himself so that he could personally attend to his own eyes. He was past thirty when someone gave him a careful refraction and for the first time in his life he was comfortable and headache free. He had found his mission in life. He promptly closed his bookshop and his other business enterprises and entered Jefferson Medical College, in Philadelphia. While still in medical school, he and his classmate Walter C. Pyle wrote an ophthalmic study guide for fellow students called "*Compend of Diseases of the Eye*" (1886), which was popular until replaced by May's *Manual*. He was president of his class and received his M.D degree in 1888. He never practiced general medicine or surgical ophthalmology, but immediately opened an office on Walnut Street in Philadelphia, and devoted himself to doing high quality refractions. In 1908 he moved to Ithaca, N.Y. where he opened a practice specializing in problem refractions, and patients came great distances to consult him. In 1911 he and his wife (Laura Stedman) moved to Atlantic City where they remained until his death in 1922. From 1891-1895 Dr. Gould was editor of the '*Medical News*', and of the '*Philadelphia Medical Journal*', 1898-1900; and of '*American Medicine*' (which he founded) from 1901-1906. He was a medical editor of great importance; he was proffered the editorship of the Journal of the American Medical Association, but declined it. He was a Fellow of the College of Physicians of Philadelphia; a member of the American Ophthalmological Society and of the American Academy of Medicine (president, 1895). He was also member of the Phi Beta Kappa and a speaker at the Congress of Arts and Sciences at the St. Louis Exposition in 1904. In 1917 he received the first Doyne medal at the Ophthalmological Congress in Oxford, England – even though, at the last minute ill health made it impossible for him to attend. Gould's literary activities were varied and significant. In collaboration he wrote: "*Diseases of the Eye*" (1897) "*Encyclopedia of Medicine and Surgery*" (1900-13); "*Anomalies and Curiosities of Medicine*" (1901); a biography of his father-in law "*Life and Letters of Edmund Clarence Stedman*" (2 vols. 1910); "*Genius and other Essays by E. C. Stedman*" (1911). By himself he wrote or compiled: "*Student's Medical Dictionary*" (1890, 11th Edition 1900) "*New Medical Dictionary*" (10 editions, 1891-1900); "*Pocket Medical Dictionary*" (1892-1913); "*Illustrated Dictionary of Medicine, Biology and the Allied Sciences*" (1894-1913 with supplement, 1905); "*Dictionary of New Medical Terms*" (1894); "*The Practitioner's*

Medical Dictionary" (1906-17); *"American Year Book of Medicine and Surgery"* (1896-1903); *"The Meaning and the Method of Life"* (1893); *"Borderland Studies"* (2 vols., 1896-1905); *"An Autumn Singer"* (Poems, 1897)., *"Suggestions to Medical Writers"* - (1900) *"Biographic Clinics"* (6 vols., 1903-95 *"History of Jefferson Medical College"* (2 vols., 1904); *"Concerning Lafcadio Hearn"* 1908; and a *"Personal Bibliography"* of over 100 items, in 1910. Dr. Gould's interests, as may easily have been inferred from the bibliography above, were not by any means confined to ophthalmology or even to medicine. He was interested in questions of Natural History: Why the Sap Rises in Plants and Trees; How the Erosion of Shore Lines can be Prevented; What are the Reasons for the Composition and Shapes of Shells and Pebbles. Questions in theology and general literature also strongly appealed to him, and he wrote in these areas much that was widely read. The dominant theme, however, of Gould's medical writing was *"Eyestrain"*. He felt that his own childhood and youth had been burdened with eyestrain, and he had searched in vain for relief in America and in Europe. He felt that getting a good pair of glasses had changed his life, and that helping others with the same problems was a career to be proud of. Based on his own experience, Dr. Gould was persuaded that even a very small amount of uncorrected refractive error could be the source of great suffering, so he recommended that refractions be done with great patience and exquisite care. He spent years struggling to impress upon public awareness the full importance of doing a really thorough refraction, correcting small amounts of astigmatism and then repeating the process after using atropine drops in the patient's eyes. Gould collected together many of these essays in a series of books called *"Biographic Clinics"*. In these six volumes Gould analyses and traces the ill health of some of the famous figures of the 19th century, making the point again and again of how very different history might have been with a few well-placed and properly fitted pairs of glasses. He concluded that a lot of dyspepsia, migraine and assorted misfortune could be traced to an inadequate refraction. In retrospect it can be said that he overplayed his hand by attributing far more than eyestrain and headache to poor glasses. Lucien Howe sent a questionnaire out to ophthalmologists and later reported that most patients were not much troubled by a little imprecision in the optical correction of refractive error. Dr. Gould had been very vigorous and persistent in this advocacy and to some he began to sound like a broken record, however the quality of refractions being done for the fitting of glasses improved greatly during the years when Dr Gould was in full voice, and he can take some of the credit for it. -A matter once of great importance, but now nearly forgotten, was the invention by Dr. Gould of cemented bifocal segments. The original bifocal glasses, invented by Benjamin Franklin, consisted of two distinct pieces, an upper and a lower segment, set edge to edge - later known as the split bifocal. Gould cemented the bifocal segment on to the main lens with a clear glue; it was a distinct improvement.. He also originated a number of devices for ocular examination, special lenses, a trial frame, methods of lighting etc. AJO 6:62-65 (Thompson)

Goulden, Charles Bernard (? – 1953) British ophthalmologist, born at Canterbury, of Huguenot stock. His immediate ancestors had returned to the Roman Catholic faith, and he was educated at St. Edmund's College, Old Hall, near Ware and at Downing College, Cambridge. He continued his medical education at the Middlesex Hospital where he won the Freeman Scholarship. After being house surgeon at the Middlesex he decided to take up ophthalmology and entered Moorfields Eye Hospital (R.L.O.H.). Three years of experience at Moorfields found him ready to start in private practice but he spent one year at Bristol as Demonstrator of Anatomy. In 1908 he began to practise in Oldham, where he was appointed Ophthalmic Surgeon to the Royal Infirmary. He was still there at the beginning of the 1914-18 war and did most useful work in the organization of the Red Cross in that area from 1914-16. He would not enter the R.A.M.C. unless he could be accepted for ophthalmic work since he felt that this would be his most useful service. Consequently he did not receive a commission until the middle of 1916 when he was appointed to the 13th Stationary Hospital, Boulogne, then the chief eye centre in France, just before the beginning of the Somme offensive. The hospital contained fifty ophthalmic beds, which soon increased to seventy and later to 120, and its own operating theatre. Here Goulden found an adequate sphere for his energy, and under Colonel, afterwards Sir William Lister, contributed a large share to the great volume of work done there. After 2 years he was put in charge of the ophthalmic work at Rouen, an appointment he felt bound to accept since it was a definite and well-earned promotion, though he left Boulogne with

regret. He remained at Rouen until the end of the war. On returning to England he was persuaded by Lister to give up his practice at Oldham and come to London, where he was appointed to the staff at Moorfields and ophthalmic surgeon at the London Hospital. His work in both hospitals was of a most distinguished character, and his share, a major one, in the introduction of the slit-lamp and the institution of slit-lamp instruction at Moorfields was particularly valuable. With characteristic thoroughness he spent some weeks with Alfred→Vogt at Zürich in order to prepare the slit-lamp instruction courses at Moorfields. He succeeded Hepburn as Dean of the School and his work in organizing post-graduate instruction was most successful. He retired from Moorfields in 1939 but soon came back again in order to do the work of younger men serving with the forces. Added to this was a very considerable volume of advisory work for the Ministry of Health and the Emergency Medical Service. At the end of the war it was a fitting recognition of his distinction and achievement in ophthalmology when he was elected President of the Ophthalmological Society of the United Kingdom, 1945-6. His presidential address on Purkinje was but one example of his keen interest in history, both scientific and general. Goulden was an ophthalmic surgeon of eminence in every way, a skilful and neat operator, a good diagnostician and a valuable opinion on any sort of case. His translation of F. Ed.Koby's *Slit-lamp Microscopy of the Living Eye. Early diagnosis and symptomatology of affections of the anterior segment of the eye* (1925) with Clara L. Harris, and an exceedingly good book on "*The Refraction of the Eye*" were his major literary works, but he contributed regularly and most valuably to the Transactions of the O.S.U.K. and to the Proceedings of the Ophthalmic Section of the Royal Society of Medicine, of which Section he was also President. BJO 1953,37:703-704. JPW

Gouzée, Henri Prosper (flourished 1835-1855) Belgian ophthalmologist. Gouzée was surgeon-general of the Belgian army and director of the military hospital at Antwerp. He wrote: *De l'ophthalmie qui règne dans l'armée Belge et des moyens d'arrêter la propagation de cette maladie* Bruxelles 1842. Dutch translation: *Verhandeling Over De Oogziekte in het Belgische Leger*. Amsterdam 1844. His papers were published, mostly in the *Annales d'oculistique*, between 1838-1853. Albert. Bibliography in v.Duyse.

Gowers, William (Sir William) Richard (1845-1915) British Neurologist. Gowers had a brilliant career at the Christ Church School, Oxford and University College Hospital, London, where he received his M.D. in 1870. Gowers served on the staff of the National Hospital in Queen Square from 1873 and of the hospital of University College from 1872 to 1915. At the latter he was also Professor of clinical medicine (1883-1888). He was a Fellow of the Royal Society and honorary graduate of the Universities of Edinburgh and of Dublin. In recognition of his eminence as a Neurologist he received the honour of knighthood in 1897. Gowers was closely connected to ophthalmology and made many observations of great practical value to this branch of medicine. His "*Manual and Atlas of medical ophthalmoscopy*" London 1879 reached a fourth edition in 1904 and was translated into German (*Die Ophthalmoskopie in der inneren Medizin*, 1893). He also wrote: *Diagnosis of Diseases of the Spinal Cord* (1880); *Epilepsy* (1881); *Manual of Diseases of the Nervous System* (1886); *Diagnosis of the diseases of the brain and of the spinal cord*. New York 1885; *A manual of diseases of the nervous system* (2 vols.) London 1886-1888; *The Ophthalmoscope*, 1915,p.311. Albert.

Graça, Couto a da (1864-1917) Brazilian ophthalmologist, professor of ophthalmology in Rio de Janeiro. AJO,1:293.

Gradenigo, Count Pietro de (1831-1904) A famous Italian ophthalmologist. He was born at Venice and in his native city received his preliminary education. When seventeen years of age he served with distinction as a volunteer in the uprising against Austria. He studied medicine at Padua, receiving his medical degree from that institution in 1855. He was soon appointed assistant in the Ophthalmic Clinic in the same city, and, in 1858, surgeon to the Venice Hospital. The latter position he resigned in 1868, and in 1873 was appointed to the full professorship in ophthalmology in the University of Padua. Gradenigo is said to have introduced the ophthalmoscope into Italy. He certainly invented a special form of the clinical thermometer and of the stethoscope, both of which have been found very useful. He wrote a large number of articles on ophthalmologic subjects; chiefly ocular antisepsis, corneal opacities, the extraction of cataract and digital massage

in various diseases of the eye. His numerous contributions were published in volume form in 1904 by two of his pupils:→ Ovio and →Bonamico. American Encyclopedia of Ophthalmology, Vol. 7, p.5619

Gradle, Harry Searls (1883-1950) American ophthalmologist, born in Chicago. He attended the University of Michigan, Ann Arbor, where graduated from the Department of Liberal Arts with the degree of A.B. in 1906. His medical training was at the Rush Medical College where he earned the degree of M.D. in 1908. During the next two years he pursued graduate medical training in ophthalmology in Vienna, London, Berlin, Paris, and Prague. He was active in the teaching of ophthalmology and was assistant professor of ophthalmology at the University of Illinois College of Medicine from 1921 to 1927, professor in 1944-45, and extramural professor of ophthalmology at Northwestern Medical School from 1928 to 1944. Gradle was a fellow of the American Medical Association, American College of Surgeons, a member of the American Ophthalmological Society, the Ophthalmological Society of the United Kingdom, Chicago Medical Society, Illinois State Medical Society, American Association for the Advancement of Science, the Association of Military Surgeons of the United States. He was particularly active in the instruction program of the American Academy of Ophthalmology and Otolaryngology. He became a fellow of the Academy in 1911 and served on the Council in 1920 and 1921. He was instrumental in the establishment of a registry of ophthalmic and otolaryngologic pathology at the Army Medical Museum. In 1921 Gradle, who served as a first lieutenant in the Medical Corps of the Army of the United States in France, arranged for the establishment of a registry of pathology through the financial support of the academy. The present Registry of Pathology under the auspices of the National Research Council grew out of this sponsorship. In 1921, Gradle was made chairman of the committee on instruction which became a major function of the educational program of the academy. He directed the course of instruction until 1938 when he became president of the academy. When the home-study courses were established in 1940, Gradle was installed as secretary for the home-study courses and directed this activity until 1946 when he retired because of ill health. In cooperation with Moacyr Alvaro of Sao Paulo, Brazil, and Conrad Berens of New York, Gradle organized the first Pan-American Congress of Ophthalmology held in Cleveland in 1940. He was president of the Pan-American Association of Ophthalmology from 1940 to 1946. During the second World War, he was chairman of the subcommittee on ophthalmology of the National Research Council. He was also chairman of the committee on ophthalmology in the Department of the Interior and worked for the eradication of trachoma among the Indians in the United States. In 1948 he was awarded the first Pan American medal of the National Society for the Prevention of Blindness. For many years he was vice-president of the Illinois Society for the Prevention of Blindness and was chairman of the committee on ophthalmology of the Illinois Public Aid Commission Blind Assistance program. Gradle was attending ophthalmologist to the Michael Reese Hospital, the Cook County Hospital from 1922 to 1928, and Illinois Eye and Ear Infirmary where he was chief of staff from 1933 to 1945. In 1946 he received the Dana Medal for outstanding service in prevention of blindness. He was on the editorial staff of the Am J. of Ophthal. and of Ophthalmologia Ibero-Antericana. His interest in glaucoma was manifested by the writing of many papers. He was in great demand as a lecturer before medical societies and was a member of many committees on education and research. He was one of the founders of the Association for Research in Ophthalmology. His contributions to medical science and to the practice of ophthalmology are widely recognized. AJO 1950,33:1303

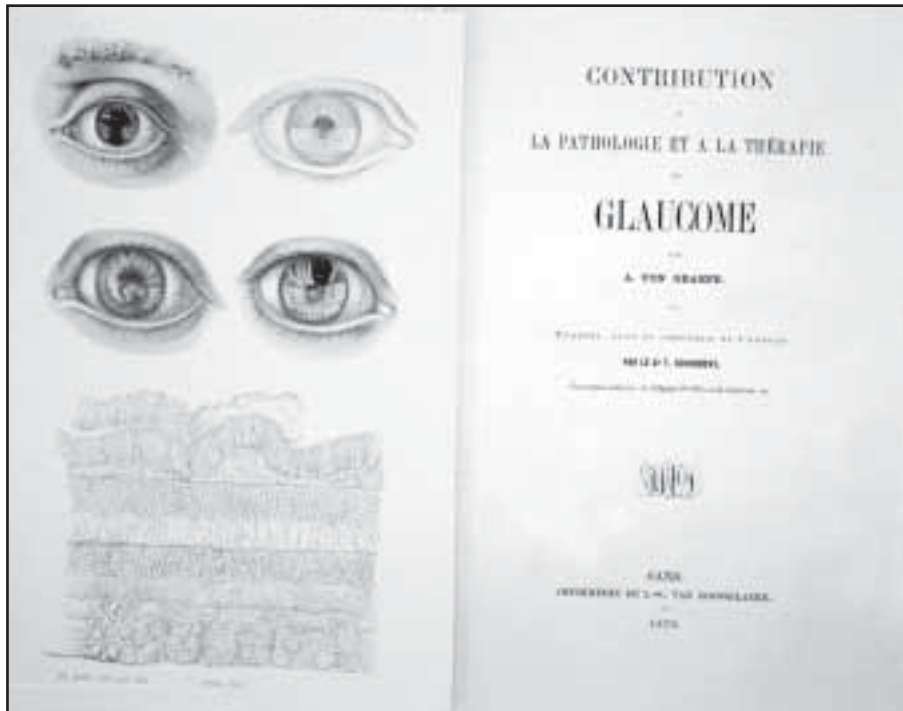
Gradle, Henry (1855-1911) A celebrated ophthalmologist of Chicago, author of the first work in English on the "*Germ Theory*." He was born in Frankfort-on-the-Main, Germany. His medical degree was received at the Chicago Medical College in 1874. After an internship at Mercy Hospital, Chicago, he studied in Vienna, Heidelberg, Leipsic, Paris and London. He was professor of Physiology in the Chicago Medical College from 1881 till 1895; and Professor of Ophthalmology and Oto-Laryngology in the same institution from 1895 to 1906. He was a member of the *Chicago Medical Society*, the *Chicago Ophthalmological Society* (of which he was once President), the *American Medical Association*, and the *Heidelberger Ophthalmologische Gesellschaft*. He wrote, as stated, the *first* work in English on the "*Germ Theory*," and also a "*Textbook on the Nose*."

Pharynx and Ear." He also contributed numerous articles to American and German periodicals. He died at Santa Barbara California. His large collection of medical books was left to the John Crerar Library, at Chicago. He also left to the Crerar Library a fund, the yearly increment of which is devoted to the purchase of journals relating to the eye, ear, nose and throat. American Encyclopedia of Ophthalmology, Vol.7, p.5619-5621. The Ophthalmoscope, 1911, p.465.



Albrecht von Graefe in 1868

Graefe, Albrecht von (1828-1870) One of the greatest ophthalmologists of all time, inventor of iridectomy for glaucoma and of the linear operation for the extraction of cataract. Born at Berlin the son of Carl Ferdinand von Graefe, he received his early education at the French Gymnasium in Berlin. He then entered the study of medicine in the Berlin University. All who knew him in his student days declared him to be a man of incomparable brilliancy. Aug. 21, 1847, he received his degree, presenting as dissertation "*De Bromo ejusque Praeparatis.*" In 1848 he went to Prague, where he came under the influence of Ferdinand →Arlt, then in the zenith of ophthalmologic glory. To Arlt the thanks of the world are due for directing young von Graefe into ophthalmology as an exclusive life career. After parting with Arlt, von Graefe spent two years in Paris under →Sichel and →Desmarres. Then, for a time, he studied with →Jaeger, Father and Son, in Vienna, and in London with the great →Critchett and the still greater →Bowman. In London a beautiful friendship sprang up between Bowman, →Donders (of Utrecht) and the young von Graefe—a friendship on which was based an abundant three-cornered correspondence that endured till the death of the lamented von Graefe at the early age of 42. In 1850 von Graefe returned to

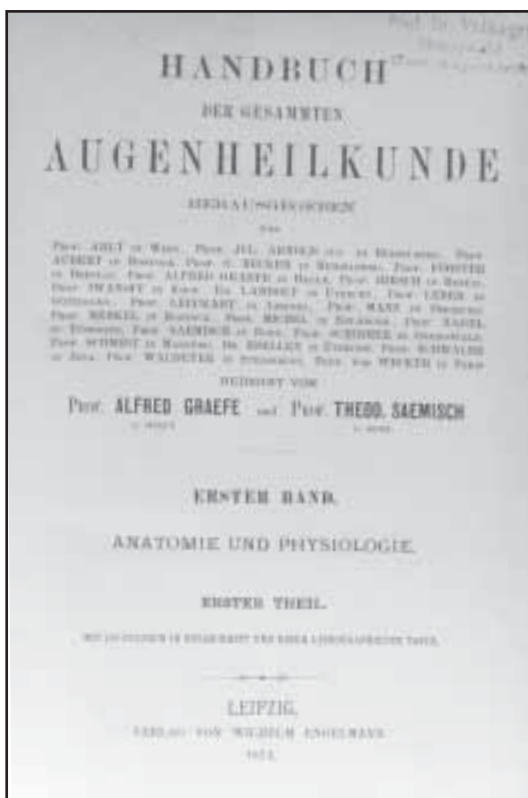


Berlin, being now an epitome of all the ophthalmology, theoretical and practical, that existed in his day. He began instantly to practice, and was at once successful. In 1852 he became privat-docent in ophthalmology, presenting as his thesis "*Ueber die Wirkung der Augenmuskeln.*" He was one of the first to employ the ophthalmoscope after its invention by von →Helmholtz in 1851. He it was who revived and improved the strabismus operation, which had fallen into disuse. In 1854 he founded the "*Archiv für Ophthalmologie.*" which marked an epoch in the development of ophthalmology. His investigations into the nature and extent of the visual field were followed by rich results. He was the first to show that "optic nerve paralysis" was, in fact, a result of inflammation of the optic nerve. He discovered the relation which exists between cerebral tumor and the so-

called "choked disc." He was the first to recognize, ophthalmoscopically, the conditions resulting from embolism of the *arteria centralis retinae*. His discoveries in connection with glaucoma were numerous and immensely important. In particular, the operation of iridectomy as a means of treating glaucoma, has rendered him immortal [He did not, however, invent the procedure itself. The honor of so doing belongs to Joseph Beer, who, in 1795, both invented and employed this operation as a means of forming an artificial pupil, the →Cheselden operation (1728) having been a mere iridotomy. Von Graefe, however, was the first to employ an iridectomy as a means of treating glaucoma]. The modified linear extraction of cataract (1866) was also his invention [He was not the first to perform a combined cataract extraction—that is to say, to employ a preliminary iridectomy. The honor of having so done belongs to von Mooren of Düsseldorf (1864), but von Graefe was the first to do the combined linear operation]. For the performance of this operation von Graefe invented a straight and narrow knife, 2 to 3 mm. in width, which is still almost

universally employed in cataract extraction, and still is known as the von Graefe, or, incorrectly, the Graefe knife. The linear operation, however, is now very seldom employed. Its purpose was to obviate suppuration—a consummation still to be devoutly wished, but now secured (since the time of Lister) by means of strict asepsis. Von Graefe's most important writings are as follows: "*Notiz über die Behandlung der Mydriasis*" [GM 5871]; "*Vorläufige Notiz über das Wesen des Glaucoms*" [GM 5872] "*Über die Coreomorphosis als Mittel gegen Chronische Iritis und Iridochorioroiditis*" [GM 5873]; "*Beiträge zur Physiologie und Pathologie der Schiefen Augenmuskeln*"; "*Ueber Doppelsehen nach Schieloperationen und Incongruenz der Netzhäute*"; "*Ueber die Diphtherische Conjunctivitis und die Anwendung des Causticum bei Acuten Entzündungen*"; "*Ueber das Gesichtsfeld bei Amblyopie*"; "*Ueber die Iridectomy bei Iritis*"; "*Über die Iridectomy bei Glaucom und über den Glaucomatösen Process*" [GM 5881]; "*Ueber den Werth Einseitiger Cataractextraction*"; "*Ueber Lineare extraction*". "*Beiträge zur Lehre vom Schielen und Schieloperation*" [GM 5880]; "*Ueber Morbus Basedowii*"; "*Die Iridectomy bei Glaucom*"; "*Ueber Embolie der Arteria Centralis Retinae als Ursache plötzlicher Erblindung*" [GM 5882]; "*Neuritis Optica nach Cerebralkrankheiten*"; "*Ueber Glaucom und Iridectomy*"; "*Ueber Calabar-Bohne*"; "*Ueber Muskuläre Asthenopie*"; "*Ueber die Modificirte Linearextraction*" [GM 5897]; "*Beiträge zur Pathologie und Therapie des Glaucoms*"; "*Ueber die Operation des Dynamischen Auswärtsschielens besonders in Rücksicht auf Progressive Myopie*"; "*Über Complication von Sehnervenentzündung mit Gehirnkrankheiten*" [GM 5886]. *Rede über die Bedeutung ophthalmologischer Studien für die Medizin zur Feier des ein und siebenzigsten Stiftungstages* Berlin 1865. *The study of ophthalmology in its significance to medicine* translated by A. Samuelson. London 1865; *Sehen und Sehorgan* Berlin 1867. Like his celebrated cousin, →Alfred Graefe, Albrecht von Graefe was always of feeble health. This valetudinarianism was very much increased by his enormous activities—activities which, no doubt, were always somewhat over-stimulated by the presence at his clinics of great throngs of students and practitioners from every portion of the civilised world. Von Graefe was a very charitable and kindly man. All his patients, rich and poor, high and low, were alike welcome. There was never the slightest discrimination. All were met with gentleness and courtesy. Already in 1858 von Graefe was very much troubled by recurrent hemoptysis and pleurisy. He continued to work, however, until he died—July 20, 1870. At the time of his death he was still a young man, being only 42 years of age. No doubt his demise was hastened by his long-continued overwork. American Encyclopedia of Ophthalmology, Vol.7, 5621-5624. Albert

Graefe, Alfred Carl (1830-1899) Cousin of the more distinguished ophthalmologist, →Albrecht von Graefe, and nephew of that distinguished inventor in the field of general plastic surgery, →Carl Ferdinand von Graefe. Born in the castle of his grandfather, Martinskirchen, near Mühlberg, a. d. Elbe, he studied from 1850 to 1854 at the universities of Halle, Heidelberg, Würzburg and Leipsic. His medical degree was received at Halle in 1854, presenting as dissertation "*De canaliculorum Lachrymalium Natura*". From 1855-58 he served as assistant to his cousin, the world-renowned Albrecht von Graefe. The cousins were nearly of the same age (Alfred being the younger by only two years) and, until the death of Albrecht were fast friends. In 1858 Alfred became privat-docent in ophthalmology at Halle, and in the same year founded the "*Klinik für Augenranke*"—at first a private, but later a public institution. The attendance at this hospital was enormous, as was properly the case when the founder and surgeon-in-chief of the institution held a record of 400 cataract extractions without the loss of one single eye. [Graefe seems to have been a careful refractionist, as well as a brilliant operator. Thus, *The Ophthalmoscope*, Jul.1908, p. 560: Describing the life of that eminent Scot, Sir Donald N. Wallace, the "World" makes a singular statement about the state of ophthalmic knowledge in this country some 40 years ago. While a student in Edinburgh in the early 60's Sir Donald found that he was unable to read for more than a few minutes at a time. He accordingly consulted "the best men" in England, but it was not until he



Title of volume 1 of the rare first edition (7 volumes) of Graefe & Saemisch's Treatise.

saw Graefe in Berlin that the cause of his distress in the shape of astigmatism was diagnosed and remedied.]. In 1864 Graefe became *extraordinarius*, and, in 1873, *ordinarius*. To Graefe the honor belongs of introducing into ophthalmology Lister's ideas of sterilisation. These ideas, of course, required a great deal of modification, before they became of much use in this special field, and most of these modifications we owe to Graefe. Suppuration after cataract operations at once became a thing of the past, or at least of very rare occurrence. Graefe was also the first to observe a cysticercus in, and to remove one from, the interior of the eye. This was very soon after the invention of the ophthalmoscope by →Helmholtz (1851) and, in a very few years thereafter, Graefe had constructed a highly successful "special localizing ophthalmoscope," the object of which was to aid in the removal of cysticerci. Perhaps his most important writing was: "*Klinische Analyse der Motilitätsstörungen des Auges*" (Berlin, 1858), which still remains a very useful work. From 1874 to 1880 he published, together with Saemisch, the world-renowned "*Graefe-Saemisch Handbuch der Gesamten Augenheilkunde*." To this monumental affair he contributed the article "*Die Motilitätsstörungen des Auges*" (*The Disturbances of Motility of the Eye*). He was a very prolific writer. Among his numerous contributions, not already mentioned, the following are most important: "*Ueber Cysticercus-Extraction aus den tiefsten Theilen des Auges, mit Construction eines Localizations-Ophthalmoskops*"; "*Ueber Ischaemia, Retinae*"; "*Ueber das Binocularsehen bei Schielenden*"; "*Ueber Wundbehandlung bei Augenoperationen*"; "*Ueber Extraction Unreifer Staare*"; "*Ueber, Enucleatio Bulbi*"; "*Ueber Caustische und Antiseptische Behandlung der Conjunctival-Entzündungen, mit Besonderer Berileksichtigung der Blennorrhoea Neonatorum*." He also wrote a good deal of poetry and had he not chosen to become an ophthalmologist, he might very well have been a poet of the first rank. There was really a good deal of boyish fun in him. Thus one writer relates: "Having removed two cysticerci in one sitting from one and the same eye (July 12, 1892) he, in a jovial manner, announced to his friends and acquaintances, elegantly printed on a gold-bordered card: "The happy delivery of two, lively cysticerci". Because of ill health, he retired in 1892 from active practice and the direction of the "Klinik," and returned to beautiful Weimar. Here, for a number of years, he continued to write. He died at Weimar, April 12, 1899. In his honor was founded the well-known "Graefe Medal, a mark of distinction conferred "every tenth year on that person of whatever nationality who has done most to advance ophthalmology. " The first went to H.von →Helmholtz, the second to Th. →Leber. American Encyclopedia of Ophthalmology, Vol. 7, p. 5624-5626



Carl Ferdinand von Graefe

Graefe, Carl Ferdinand von (1787-1840) German general surgeon of the early 19th century, the father of Albrecht von → Graefe and himself a well known ophthalmologist. Born at Warsaw, the son of an agent of Count Moszynski, he pursued the study of medicine at Dresden, Halle, and Leipsic. At the last named institution he received his degree in 1807. In 1808 he became Court Councillor and Body Physician to the reigning Duke of Anhalt-Bernburg-Alexius in Ballenstedt. Here he erected a hospital, and was otherwise very active. In 1810 he was called to Berlin as professor-in-ordinary and director of the Clinico-Chirurgico-Ophthalmic Institute. In 1826 he was ennobled by Czar Nicholas of Russia, and the honor was recognized by his own king. In 1830 he was called to London to treat Prince George of Cumberland for an ocular affection. Having gone to Hanover for the purpose of performing an ophthalmic operation on the Crown Prince, he died there July 4, 1840. As an operator on the eye, C. F. von Graefe was absolutely unexcelled. He was also a brilliant lecturer on ophthalmology, and a writer of no mean merit. His investigations into the cause, nature, and cure of Egyptian ophthalmia, are of very great value today (1915), and are often referred to by ophthalmic writers when treating of this disease. In the general field his light burned still more brightly. He was the first in all Germany to perform a staphylorrhaphy. He invented a combination of the Indian and the Italian methods of rhinoplasty-a procedure which still (1915) is known under the name of "*The German Method*." He was the first in Germany to tie the innominate artery. He invented the "*compressorium*" for the meningeal arteries, the ligature-staff, an operating-table, the coreoncion, and numerous other instruments and paraphernalia. His most important writings are: 1. "*Angiektasie, ein Beitrag zur Rationellen Cur und Erkenntniss der Gefässausdehnungen*" (Leipsic, 1808). 2. "*Normen für die Ablösung Grösserer Gliedmassen nach Erfahrungsgrundsätzen Entworfen*" (Berlin, 1812,

with 7 plates). 3. "*Rhinoplastik, oder die Kunst, den Verlust der Nase Organisch zu Ersetzen*" (Berlin, 1818, with 6 plates). 4. "*Die Gaumennaht, ein Neuentdecktes Mittel*" (*Jour. für Chir. u. Augenh.*, 1820). 5. "*Die Epidemisch-Contagiöse Augen blennorrhoe Aegyptens in den Europäischen Befreiungsheeren*" (Berlin, 1823) 6. *Repertorium augenärztlicher Heilformeln* Berlin 1817. *American Encyclopedia of Ophthalmology*, Vol.7,5626-5627.

Graefe, Edward Adolf (1794-1859) Younger brother of Carl Ferdinand von Graefe. Born at Pulsnitz, in the Kingdom of Saxony, he studied medicine at Halle and Berlin, receiving his degree at the latter institution in 1817. In 1820 he settled in Spremberg, but five years later moved to Berlin. He was rather a voluminous contributor to the literature of general medicine, and composed a number of papers on ophthalmologic subjects. Of these the most important is "*Erfahrungen über den Lichtstrahlen Brechende Vermögen der Durchsichtigen Gebilde in Menschlichen Auge*" (1820). He died at Unruhstadt in the Province of Posen. *American Encyclopedia of Ophthalmology*, Vol.7.p.5627.

Graham, Clarence H. (1906-1971) American psychologist, professor of Columbia University. He was renowned for his contributions to visual science and for his training of over 70 recipients of the doctor of philosophy degree. Graham received his A.B., M.A., and Ph.D. degrees from Clark University in Worcester. His doctoral dissertation (1930) concerned binocular summation. Thereafter, he collaborated with Dr. R. Granit and later with Dr. H. K. Hartline in the recording of nerve impulses in single cells of *Limulus*. From 1934 through 1941, he and his students at Brown University used psychophysical techniques to study threshold interactions of intensity, time, and area. During and after World War II, he was interested in space perception. At Columbia in the 1950s, he turned his attention to color vision and, in collaboration with Dr. Yun Hsia, investigated some fundamental characteristics of color blindness. In his last years he turned again to space perception, and he and his students studied movement perception. Graham was the recipient of many honors and awards including the Warren Medal of the Society of Experimental Psychologists (1941), the Presidential Certificate of Merit (1948), The Tillyer Medal of the Optical Society of America (1963), and the distinguished Scientific Contribution Award at the American Psychological Association (1966). Graham was elected to the National Academy of Sciences, the American Philosophical Society and the American Academy of Arts and Sciences. Dr. Graham's living memorial is the many graduate students he trained during his career. *AJO* 1971,72:1018

Graham, James (*?-1830) A well known London physician, who seems to have devoted considerable attention to the eye. His only ophthalmologic writing is "Thoughts on the Present State of the Practice in Disorders of the Eye and Ear, etc." (London, 1775). The date of his birth is not known, but he died in 1830 at a very advanced age. *American Encyclopedia of Ophthalmology*, Vol.7.p.5628.

Grand Boulogne, Alphonse de *see* **Alphonse de Grand Boulogne**

Grand, Paul le *see* **Le Grand, Paul**

Grandmont, Pierre Anatole Gillet de *see* **Gillet de Grandmont**

Grant, W. Morton (1915-) American Ophthalmologist who lived and worked in Boston, Massachusetts. Educated at Harvard College and Harvard Medical School (MD, 1940), Grant spent the rest of his career at the Massachusetts Eye and Ear Infirmary, directing its Glaucoma Service. He advanced to the rank of Professor at Harvard in 1967. Grant initially worked with Everett Kinsey on the mechanism of formation of aqueous humor (e.g. *The secretion-diffusion theory of intraocular fluid dynamic*. *Br. J. Ophthalmol.* 1944; 28: 355-361). These studies were set aside cause of World War II and a need for investigative work on mustard gas. This led to a series of publications on the effects of this gas and other poisons on the cornea (e.g. *Determination of the rate of disappearance of mustard gas and mustard intermediates in corneal tissue*. *J. Clin. Invest.* 1946; 25: 776-779), as well as attempts at influence on its destructive effect. After the war years, Grant returned to the problem of glaucoma. He clarified the process of ocular outflow in the trabecular meshwork and developed a method of ocular tonography, a major contribution to the field (*Clinical tonography*. *Trans. Am. Acad. Ophthalmol. Otolaryngol.* 1951: 774-781). Of great clinical importance was his pioneering work on carbonic anhydrase

inhibitors for lowering the intraocular pressure (Grant and Trotter *Diamox (Acetazolamide) in the treatment of glaucoma*. Arch. Ophthalmol. 1954; 51: 735-739). In the laboratory, Grant developed a model to study the resistance to aqueous flow in the trabecular meshwork (*Experimental aqueous perfusion in enucleated human eyes*. Arch. Ophthalmol. 1963; 69: 783-801). This technique has since been fruitfully utilized by a number of his followers. Grant had a unique and long-standing professional relationship with a distinguished clinician, Paul Chandler. Together they were monumental thinkers in the field of glaucoma, and their collaboration resulted in a textbook "*Glaucoma*" (Philadelphia. Lea & Febiger, 1979) which continues, in updated versions, to guide generations of clinicians. Among other specific recommendations, they clarified the mechanism of so-called malignant glaucoma (Chandler, Simmons and Grant: *Malignant glaucoma, medical and surgical treatment*. Am. J. Ophthalmol. 1968; 66: 495-502). Plateau iris was shown to have consequences for the intraocular pressure (Wand, Grant, Simmons, and Hutchingson: *Plateau iris syndrome*. Trans. Am. Acad. Ophthalmol. Otolaryngol. 1977; OP 122-129). Although Grant's fame is so firmly tied to the subject of glaucoma, he had also, time for issues within toxicology. Aside from the mustard gas problem, chemical burn to the ocular surface was researched in depth. He also described a simple way to dissolve calcifications of the cornea (Arch. Ophthalmol. 1952; 48: 681-685). Gradually, Grant's interest in the pharmacology and toxicology deepened and it resulted in the monumental text "*Toxicology of the Eye*" which appeared in four editions from 1962 to 1993. Grant retired in 1982. He has been the recipient of numerous honors, such as the Proctor Medal 1956, the Knapp Medal 1961, the Howe Medal 1968 and a "*Festschrift*" from the New England Ophthalmological Society 1990. (By C. H. Dohlman) (SM)

Grapheus, Beneventus (12th century, 14th century?) of Jerusalem (also called, Benvengut, Beneventus, Vengut, Grassus, Grassi, Grasso, and Ben Vengut de Salerno). The most famous ophthalmologist of the Latin (European, or Christian) Middle Ages, and the author of the *first* monograph on diseases of the eye printed by means of movable types. The time and place of his birth and death are all unknown; Haeser believes he was born in Jerusalem. It is likely that he flourished in the 14th century, but Julius→Hirschberg refers him to the middle of the 12th. He was probably a Jew; he certainly studied at Salerno, and quite as certainly practiced in Italy and the South of France. He wrote a book on diseases of the eye, called "*Practica Oculorum*," which, for centuries, was the standard work of its kind throughout Christian Europe (English translation Stanford 1929). Numerous manuscripts of this treatise are still extant, written in various early Western European languages, as well as in Latin, and as early as 1474, it received the honors of print. Despite its great and long-standing popularity, however, the book possesses but little original value. It seems to have owed its remarkable acceptance to the fact that it comprised not only the oculistic science of the ancients, but also that of the Arabians. American Encyclopedia of Ophthalmology, Vol.7,p.5631-5632.

Grasmeyer, Paul Friedrich Herman (? - ?) German physician. The *first* one in history to employ a mydriatic in connection with diseases of the eye. Born in Hamburg, Germany, he received his medical degree at Göttingen, where he settled for practice. While there he wrote "*Diss. de Conceptione et Foecundatione Humana*" (Göttingen, 1789), "*Abhandlung von Eiter und den Mitteln, ihn von allen ihm Aehnlichen Feuchtigkeiten zu Unterscheiden*" (Göttingen, 1790). Later he moved back to his native Hamburg and there he first made use of belladonna in the practice of ophthalmology. In the presence of Reimarus, in 1796, he extracted a cataract via a pupil which had been dilated for that purpose by means of belladonna. American Encyclopedia of Ophthalmology, Vol.7,p.5632

Grassi see Grapheus

Grassi, Orazio (1582-1654) astronomer and physician, born in Savona, Italy, entered the Jesuit order in 1600 and afterward was a professor of mathematics at Genoa and Rome. Grassi is remembered for his dispute with Galileo over the nature of comets (1618-1626), a dispute that centered on Galileo's contention that, contrary to Aristotle's teaching, change could occur in the heavens, and that observation and scientifically derived principles might overrule authority. He wrote: *De iride. Disputatio Optica*. Roma 1617 and *Cometae. De tribus cometis anni 1618* 1619.

Grassus *see* **Grapheus**

Graves, Robert James (1797-1853) Irish physician, by some considered as the discoverer of the so-called Graves' disease, or exophthalmic goitre. Born at Dublin in 1797, he studied at Dublin, London, Berlin, Göttingen, Hamburg, and Copenhagen. In 1821 he began to practise in Dublin. A short time afterward, he founded the Park Street School, in which he taught medical jurisprudence, anatomy and internal medicine. He was a skilful diagnostician, and a teacher of unquestioned genius. He was physician to the Meath Hospital, the County of Dublin Infirmary and the Hospital for Incurables. In 1827 he became Professor of the Institutes of Medicine at King's and Queen's College of Physicians. He was also a Fellow and Censor of the College of Physicians. For ten years he was one of the editors of the *Dublin Journal of Medical and Chemical Science*, and he contributed numerous articles to this and to various other periodicals. Among his best known books are: 1. *Clinical Reports of the Medical Cases in the Meath Hospital and County of Dublin Infirmary during the Session of 1826-27* (in collaboration with Stokes; Dublin, 1827). 2. *A Selection of Cases from the Medical Records of the Meath Hospital* (in collaboration with Stokes; Dublin, 1827). 3. *Lecture on the Functions of the Lymphatic System* (Dublin, 1828). 4. *Clinical Lectures Delivered during the Sessions of 1834-5 and 1836-7* (Philadelphia, 1838). 5. *A System of Clinical Medicine* (Dublin, 1843; various editions in other years and countries). 6. *Clinical Lectures on the Practice of Medicine* (Dublin 1844). His chief performance was the discovery of the symptom complex which is sometimes called *Graves' disease*, sometimes *Basedow's disease*, and, perhaps most frequently of all, exophthalmic goitre. For a discussion of the question of priority in connection with this matter, see →Basedow. Twenty-five years after his death a statue was erected to his honor in Dublin. American Encyclopedia of Ophthalmology, Vol.7, p.5634

Gray Charles M. (?-) American, Associate Professor of Neurobiology. Gray received his B.S. (Biochemistry) at University of Arizona in 1981 and his Ph.D. (Neuroscience) Baylor College of Medicine in 1986. His interests are focused on Neuronal mechanisms underlying mammalian visual pattern recognition. Integration of visual information received by neurons in different locations of the visual cortex. **Papers:** Gray CM. 1994. *Synchronous oscillations in neuronal systems: mechanisms and functions*. Journal of Computational Neuroscience 1:11-38; Jagadeesh B, CM Gray, and D Ferster. 1992. *Visually-evoked oscillations of membrane potential in neurons of cat striate cortex studied with in vivo whole cell patch recording*. Science 257:552-554; Gray CM, AK Engel, P Koenig, and W Singer. 1992. *Synchronization of oscillatory neuronal responses in cat striate cortex: temporal properties*. Visual Neuroscience 8:337-347. Address: Center for Neuroscience, 1544 Newton Court, Davis, CA 95616 Tel.: (530) 757-8837 cmgray@ucdavis.edu (AB)

Gray, A.S. (1826-1907) Australian ophthalmologist, founder of the Victorian Eye and Ear Hospital in Melbourne. The Ophthalmoscope, London 1907, p.614

Gray, Henri (1825-1861) Famous British anatomist of considerable importance in ophthalmology both because of the ocular portion of his "*Anatomy, Descriptive and Surgical*" London 1858 (33rd edition 1962), [GM 418] and also because of his "*On the Anatomy and Physiology of the Nerves of the Human Eye*," which brought him, in 1839 the triennial prize of the Royal College of Surgeons. He was Professor of Anatomy at St. George's Hospital and Assistant Surgeon at the same institution. This remarkable man died at the early age of 36, in 1861. American Encyclopedia of Ophthalmology, Vol.7, p.5635.

Greef, Carl Richard (1862-1938) German ophthalmologist. Greef was born in Elberfeld, Germany, and received his M.D. in 1888 at Marburg. He postgraduated in Berlin, Frankfurt, and other European cities before becoming professor of ophthalmology at the University of Berlin (1901). He wrote particularly on the pathologic histology of the eye: *Der Bau und das ophthalmoskopische Aussehen der Chorioidea*. Breslau: J.U. Kern's Verlag (Max Müller), 1897 (in: Magnus HF: *Augenärztliche Unterrichtstafeln*, Heft 12); *Anleitung zur mikroskopischen Untersuchung des Auges*. Berlin 1898; American edition: *Guide to the Microscopic Examination of the Eye*, Philadelphia 1902 (2nd Am.ed. New York 1913; *Die Pathologie des Auges*, Berlin 1902-1906; *Studien über epidemische Augenkrankheiten auf Grund von Untersuchungen*. Jena 1898. *Atlas of External Diseases*

of the Eye, New York 1913 (2nd ed.1914). He re-edited Schweigger's *Vorlesungen über den Gebrauch des Augenspiegels* Wiesbaden 1895. Albert.JPW

Green, John (1835-1913) American ophthalmologist of St.Louis, MO., inventor of Green's operation for entropium, Green's extirpation of the lachrymal sac, Green's styles, Green's tendon-tucker, Green's test types, etc. He was born at Worcester, MA., the nephew, grandson, and great-grandson of doctors all of whom bore the name of John Green and all of whom resided at Worcester, Mass. Green entered Harvard College in 1851, received the degree of A. B. in 1855, that of S. B. in 1856, A. M. in 1859, and M.D. in 1866. From 1858-1860 he studied medicine in Europe. In 1857 he accompanied Prof. Jeffries Wyman on a scientific expedition to Surinam. Four years later he began to practise medicine in Boston. In 1862 he served on the Western U. S. Sanitary Commissions, and was for a time acting assistant surgeon in the armies of the Tennessee. He was a delegate to the *American Medical Association* in 1864, 1865, 1873 and 1877. In 1865 he went again to Europe for further study in ophthalmology and on returning to America, moved to St. Louis. There he at once became a successful and influential ophthalmologist. Green was made a member of the *American Ophthalmological Society* in 1866, and was one of the charter members of the *American Ophthalmological Society*. He was a member of the *International Ophthalmological Congress* in 1872, a delegate to the *International Medical Congress* in 1876 and secretary in that congress to the section on ophthalmology. He was appointed, full professor of ophthalmology and otology in the St. Louis College of Physicians and Surgeons in 1866, lecturer on ophthalmology in the St. Louis Medical College in 1871, surgeon to the *St. Louis Eye and Ear Infirmary* in 1872, consulting ophthalmic surgeon to the St. Louis City Hospital in 1872, and ophthalmic surgeon to St. Luke's Hospital in 1874. American Encyclopedia of Ophthalmology, Vol.7, p.5638-5647 [with an extended, if not complete bibliography of J. Green]. Albert. The Ophthalmoscope, 1914, p.520.

Green, Joseph Henry (1791-1863) English surgeon, anatomist, physiologist and ophthalmologist. Born in London, he studied at Berlin and also at St. Thomas's Hospital, London, where, in 1813, he was made prosector. In 1815 he became an M. R. C. S., and three years later, instructor in anatomy and physiology at St. Thomas's. He was a very successful operator, especially for stone, having performed, before 1827, 40 lithotomies, with only one death. Green is credited to have performed the *first* thyroidectomy. [GM 3814]. In 1828 he published his "*Manual of Modern Surgery*," and two years later was appointed Professor of Surgery at the newly founded King's College, a position which, however, together with his private practice, he gave up in 1837. He was also for a few years a professor of anatomy at the Academy of Fine Arts. Green's "*Lectures on Diseases of the Eye*" reached its ninth edition in 1836, and was highly esteemed both by students and practitioners. He also wrote: *The principles and practice of ophthalmic surgery, comprising the anatomy and pathology of the eye* London 1839; *The dissector's manual* London 1820; *A letter to Sir Astley Cooper* London 1825; *The touchstone of Medical Reform* London 1841; *Vital dynamics. The Hunterian oration* London 1840. In 1849 he was President of the College of Surgeons, and again in 1858. American Encyclopedia of Ophthalmology, Vol.7, p.5647-5648. Albert.

Greene, Duff Warren (1851-1913) American ophthalmologist of Dayton, Ohio. He was born at Fairfield, Greene County, Ohio, the son of Dr. John W. Greene, a general practitioner of that place. He, attended the Ohio Wesleyan University, at Delaware for two or three years, but did not graduate. His medical degree was received at the Ohio Medical College, Cincinnati, in 1876. For a time he practised general medicine at Fairfield in partnership with his father. Then, pursuing the study of ophthalmology for several months in New York City, he moved from Fairfield to Dayton, where he practised as an ophthalmologist until the very day, almost hour, of his death-more than thirty-one years. In 1888 he studied ophthalmology in Vienna for six months. In 1909 he went to Julundur, India, where he made a special study of the intracapsular method of cataract extraction as practiced by Colonel Smith. In 1912 he proceeded again to Europe, where he studied the eye in various hospitals in all the medical centers. 1884 he was appointed oculist and aurist to the National Military home, Ohio, a position which he held twenty-nine years, until his death. He belonged to numerous medical societies, general and special, and in 1912 was made a member of the *Oxford Ophthalmological Congress*. For the last ten

years of his life he was associated in practice with Dr. Horace Bonner. Dr. Greene was a voluminous and excellent contributor to ophthalmic literature. Aside from numerous journal articles, he wrote most valuable chapters on the intracapsular operation for cataract in Vol.2 of Casey A. Wood's *System of Ophthalmic Operations* and in *American Encyclopedia of Ophthalmology*. American Encyclopedia of Ophthalmology, Vol.7,p.5837-5838; The Ophthalmoscope, London 1913,p.702.

Greeves, Reginald Affleck (1878-1966) British ophthalmologist, Emeritus Consultant Ophthalmic Surgeon to the Middlesex Hospital and to Moorfields Eye Hospital. Born in Strandtown. Co. Down, the youngest of a family of eleven children, he was educated privately and at Queen's University, Belfast. In 1900 he graduated B.A. with honours, and gained a first class exhibition. After a distinguished undergraduate career in medicine at University College Hospital, London and at Guy's Hospital, he qualified as M.B. London (1903), B.S. with honours (1906). M.R.C.S. and L.R.C.P. (1906) and F.R.C.S.. England(1906). Greeves was not immediately to specialize in ophthalmology but went to South Africa where he was a country doctor in the Transvaal. After acting as Surgical Tutor and Registrar to Guy's Hospital, he decided to specialize in ophthalmology. He was appointed assistant ophthalmic surgeon to the Middlesex Hospital in 1914, later becoming full ophthalmic surgeon to that hospital, from the active staff of which he retired in 1946. He was elected to the surgical staff of Moorfields in 1915, after two years as the curator of the Museum and Pathologist to the hospital, and retired in 1938, to become an active member of its staff again during the war years, when he held outpatient clinics at the hospital and operated regularly at the Tindal House Emergency Hospital in Aylesbury. Greeves was a particularly able clinician, a well-trained pathologist, and a competent surgeon with the good judgment that this demands. His opinion on difficult fundus cases was sought by his former pupils and colleagues until his complete retirement in 1960. He wrote many important papers on the pathological and clinical aspects of ophthalmology and included in his teaching and his publications many of the nice points of refraction that are so important in ophthalmic practice. In 1941-2 he was president of the Ophthalmological Society of the United Kingdom, of which he had been an unusually active member since 1911, and had contributed richly to its transactions. Brit.J.Ophthal.1966,50:744; AJO 1967,63:181

Gregg, Norman (Sir Norman) McAlister (1892-1966) Australian ophthalmologist. Gregg graduated at the University of Sydney in 1915 and immediately left for the first World war wherein he served as a Captain R.A.M.C. on the western front and gained the Military Cross (1915-19); Thereafter he studied ophthalmology in London, took the D.O.M.S. in 1922 and returned to Sydney where he worked at the Prince Alfred Hospital and the Royal Alexandra Hospital for Children, an institution of which he subsequently became president, and was lecturer in ophthalmology at the university (1939-52). He was also President of the Children's Medical Research Foundation. During all his working life he conducted an exceptionally busy and successful private practice. Gregg attained his world-wide reputation because of the revolution he created by his inspired observation that rubella contracted during the first trimester of pregnancy could lead to the occurrence in the child of congenital cataract, deafness, and anomalies of the heart, great vessels, and other organs (1941-44). This discovery resulted not from experimenting in the laboratory but from painstaking and exact clinical observation at which he was an adept; in a sense it resembles the discovery of vaccination by Edward Jenner from the observation that milkmaids who had contracted cowpox were immune from smallpox. The importance of Gregg's work in the sphere of teratogenesis lies in the fact that it constituted the first proof that an environmental agent could cause congenital deformities in man, and disproved the validity of the general belief that such clinical syndromes of congenital origin were always due to a faulty "germ plasm". His observations were confirmed by many others in all countries of the world and led to a revolution in thought in this branch of medical science. From the practical point of view his work led to the protection of pregnant women from this otherwise harmless infection by anti-rubella serum. Gregg was widely honoured; he was awarded the Charles Mickel Fellowship by the University of Toronto (1952), elected a Fellow of the Royal College of Obstetrician and Gynaecologists (1952) and of the Royal Australian College of Physicians (1953), awarded a doctorate in medicine *honoris causa* of Melbourne University (1952) and an honorary D.Sc. of Sydney University (1953) and

was knighted in the same year. In 1963 he was elected an Honorary Fellow of the Australian Post-graduate Federation in Medicine, and in 1964 he shared with Dr. Kate Campbell of Melbourne the 10,000 dollar Encyclopaedia Britannica Award for the most outstanding achievement of medical research in Australia. *Brit.J.Ophthal.* 1966,50:679-680; *AJO* 1967,63:180-181

Gregory, Thomas Stanley Sherwood (1916-1981) British ophthalmologist. Thomas Stanley Sherwood Gregory was born at New Maiden, Surrey. He was educated at Newport Grammar School, Essex, Sherborne School and Gonville and Caius College, Cambridge. He studied medicine at St Bartholomew's Hospital, London, and qualified MB, BCh in July 1940. He spent a year as house physician at St Bartholomew's and was RSO at the Royal Masonic Hospital for two years, followed by six months as ophthalmic house surgeon at Guy's Hospital. He took the DOMS in 1947 and the FRCS in 1948. During his training he was influenced by J.D. Morgan Cardell, O. Geyer Morgan and F.W. Law. Gregory was an eye specialist in the RAMC 1944-47 with the rank of Captain. After the war he was in ophthalmic practice in the Aylesbury Health District and became a casualty ophthalmic surgeon for the Aylesbury and High Wycombe Health District. He received following titles: MRCS and FRCS 1948; BA Cambridge 1937; MA 1949; MB, BCh 1940; DOMS 1947. LFRCS

Grey-Edwards, Henry (1856-1913) British ophthalmologist of Bangor. He graduated at the Dublin University in arts and in medicine. He held the post of ophthalmic surgeon to the Caernarfon and Anglesey Infirmary, as well as to the North Wales Blind Society. He was a member of the Oxford Ophthalmological Congress and a member of the Ophthalmological Society of the United Kingdom. He wrote about the *efficacy of subconjunctival injections* (1907) and the *use of staphylococcic vaccine in the treatment hypopyon-ulcer of the cornea* (1908), both articles in *The Ophthalmoscope*. The Ophthalmoscope, London 1913, p.570.

Griffin, Ovidus Arthur (1872-1911) American ophthalmologist of Ann Arbor, Mich. He was born in Fayette, Ohio, received the degree of B. S. at the State Normal School, Fayette, and his medical degree at the University of Michigan, June, 1899. He studied the eye, ear, nose and throat at New York, Philadelphia, Vienna and Berlin. For three years he was Dr. Flemming Carrow's first assistant and demonstrator of ophthalmic and aural surgery and clinical ophthalmology and otology in the department of medicine and surgery in the University of Michigan. Until his death he continued to practice in Ann Arbor. He was a member of the *Ann Arbor Medical Club*, the *Washtenaw Medical Association*, the *American Medical Association*, and the *American Academy of Ophthalmology and Oto-Laryngology*. Among his more important writings are: 1. *Disorders from Eye Strain*. (Read before the Michigan State Medical Society, at Petoskey, June, 1905.) 2. *Complete Removal of the Faucial Tonsils*. (Read before the American Academy of Ophthalmology and Oto-Laryngology, 1906.) 3. *Ocular Symptoms of Nasal Origin*. (Read before the Michigan State Medical Society, 1907.) 4. *Diseases of the Ear*. A Student's Manual: Lea Bros., 1905. He invented a number of useful instruments, among them the well known Griffin tonsil scissors. He also designed a model operating chair. *American Encyclopedia of Ophthalmology*, Vol.7, p.5648-5649.

Griffin, William Watson (1869-1937) New Zealand ophthalmologist, born at Timaur, South Canterbury, New Zealand, the fourth child and second son of Samuel Stewart Griffin and Catherine Finegan, his wife. His father, born in Canada, was medical man, clergyman, politician, and pioneer settler. He was educated at Christ's College, Christchurch, where he did brilliantly gaining five first class two prizes in 1885, the first Tancred prize for English history in 1887, and the senior Somes scholarship. He entered the Otago University in 1888 and graduated M.B., B.Ch. in 1891, after winning a special prize given for proficiency in diseases of the eye and ear. In 1892 he served as the first junior resident surgeon at the Dunedin Hospital, and at the end of his term of office sailed for England in the s.s. *Fifeshire* to continue his medical studies in London. In London he acted as clinical assistant to Edward Nettleship at the Ophthalmic Hospital, Moorfields, and to William Lang at the Middlesex Hospital, and attended the National Hospital for Nervous Diseases at Queen Square, Bloomsbury. In 1894 he was admitted a Fellow, and it was noted with pride by the University of Otago that he was the first to obtain the

distinction in so short a time after leaving New Zealand. By the advice of Lang and other friends he then determined to settle in England and devote himself to ophthalmology. He therefore went to Brighton, where he was elected ophthalmic surgeon to the Royal Sussex County Hospital on 12 June 1901 and to the Worthing Hospital, acquired a good practice, and was a vice-president of the ophthalmic section when the British Medical Association met in the town in 1913. On 27 April 1908 he joined the newly formed Territorial Army with the rank of major, R.A.M.C.; in 1914 he was called up and was attached to the Second Eastern General Hospital, where he served throughout the war as the eye specialist. After demobilization in 1919 the health of his wife compelled him to live abroad, so that he resigned his posts at Brighton; on his return to England he practised at Margate. He earned following degrees: M.R.C.S. 15 November 1893; F.R.C.S. 11 October 1894; M.B., B.Ch. New Zealand 1891; L.R.C.P. 1893. *Brit med J.* 1938,1:151; LFRCS 1930-1951:347-348

Griffith, Alexander Hill (1858-1937) British ophthalmologist born in Aberdeen, the seventh son of Charles Fox Griffith, J.P. He was educated at the Aberdeen Grammar School and University of Aberdeen and passed his final examinations for the degree of M.B., C.M., before he was twenty-one years of age. After his qualifying examination (April, 1879) and before he received his M.B. degree in April, 1880, he was appointed House Surgeon at the Manchester Royal Eye Hospital, a position which he held for nearly seven years. At that time little was done for the treatment of astigmatism and it was principally due to Griffith that adequate attention was given to this branch of refraction. Again during the time of his residence he was very interested in fields of vision and as a result of his investigations he wrote an excellent paper on this subject in the *Manchester Medical Chronicle*. In 1883 he obtained the degree of M.D. In 1886 Griffith was appointed to the Honorary Surgical Staff of the hospital, first as assistant surgeon and three years later to the full staff. He was now in a position to pursue his clinical investigations and perfect his technique. This was supplemented by his love for histology. He was a keen microscopist and cut all his own sections. In 1896 he took the F.R.C.S.(Edin.). His contributions to ophthalmic literature evidently attracted the attention of his contemporaries, for in 1897 he was awarded the Middlemore prize by the British Medical Association. In 1898 he wrote the section on diseases of the choroid and vitreous in Norris and Oliver's *Textbook of Ophthalmology*. This was an excellent contribution on these subjects and amongst many interesting points he expressed views on the permeability of the suspensory ligament of the lens, a subject noted by him in a previous communication to the Ophthalmological Society. In his chapter on choroidal disease he emphasized the importance of transillumination as an aid to the diagnosis of choroidal neoplasms. In 1899 Griffith was appointed Honorary Ophthalmic Surgeon to The Manchester Royal Infirmary and later lecturer on ophthalmology to the University of Manchester. He joined the Ophthalmological Society in 1885, was on its committee from 1893 to 1896 and later was a Vice-President (1905 to 1908). For many years he was a member of the Manchester Medical Society and made several valuable contributions to it. For forty-three years he was a member of the British Medical Association was its secretary to the section of Ophthalmology at the annual meeting held in Manchester in 1902, and was Vice President at the Belfast Meeting in 1909. He was one of the founders of the North of England Ophthalmological Society and was its first President. On his appointment to the stall of the Manchester Royal Infirmary he was brought into contact with the students and it was soon apparent that his abilities as a teacher were great. Griffith was an excellent operator. It was really delightful to watch his technique in such an operation as iridectomy for glaucoma for no anterior chamber seemed too shallow for him to enter with a broad keratome. Again, his cataract operations were beautifully executed and his originality is well illustrated by the novel manner in which he approached the corneo-sclera when trephining for glaucoma—a technique mentioned in Elliot's book on this subject. *BJO* 1938,22:123-125

Griffith, Arthur Donald (1882-1944) British ophthalmologist. Griffith qualified in 1905, obtaining the Fellowship of the Royal College of Surgeons in 1909. He was appointed to the honorary staff of the Royal Eye Hospital, where he had previously served as House-Surgeon, Registrar and Pathologist. He combined his duties at the Royal Eye Hospital with service as Ophthalmic Surgeon at the Westminster Hospital. During the hostilities of

1914-18 he served as Ophthalmic Specialist and Officer-in-Charge of Military Hospital, Hamrum, Malta from 1914-16, Surgeon Specialist at Salonika 16-17 and Senior Medical Officer Faenza area, Italy 1918-19. His war experiences were published in *The Lancet* in 1916: „*Injuries of the Eye and Orbit*“. After the war his special interests focused on stereoscopic vision and radiotherapy published in the *Transactions of the Ophthalmological Society* and in the *Proceedings of the Royal Society of Medicine*. At the Royal Eye Hospital his memory was perpetuated by a lectureship in optics. BJO 1944;28:258-260. Times 7. Mar 1944, 6g; Lancet 1944, 1:391. LFRCs 1930-1951, 348-349.

Grimaldi, Francesco Maria (1618-1663) Italian physicist, who discovered the diffraction and the interference of light. Born in Bologna, Italy, he became an instructor in mathematics at the Bolognese Jesuit College. His only work on optics was entitled, *“Physico-Mathesis de Lumine, Coloribus et Iride Aliisque Annexis Libri II.”* which did not appear until 1665, that is to say, two years after his death. In this small volume we find, among others, an account of its author’s great discoveries. First, he took up the diffraction of light. The experiment showing this phenomenon was performed as follows: In a room that was otherwise dark, a single cone of light was permitted to enter, and was caught upon a white ground, or screen. Then a staff was held between the screen and the place of entrance of the light, and the shadow of the staff on the screen was examined closely. Grimaldi then observed: 1. That the full shadow was larger than, by the ordinary calculation, it should have been. 2. On either side of the shadow was a zone of color, which, in the direction of the shadow, was blue, and, in the opposite direction, red. 3. The light-intensity and the color-intensity of both these color zones diminished from the shadow outwards. 4. If the light that entered the room was very bright sunlight, then certain zones of color appeared in the shadow itself. These “influences” of the shadow on the illuminated portion of the screen, and *vice versa*, were called by Grimaldi himself “the diffraction of light,” so that the discoverer of the phenomenon is also the inventor of the term. Grimaldi also correctly explained these influences of illuminated part on shadow and *vice versa*, as due to a bending of some of the rays of light, either inward or outward, as it passed by the border, or edge, of the shadow-casting body. Next, Grimaldi, in his little book, took up the interference of light. This phenomenon he discovered in the course of an experiment by which he endeavored to show that diffraction is something altogether different and apart from both reflection and refraction. Laying aside the staff he had employed in the original experiment, he plated in the path of the light an opaque plate in which there was a small opening. Once again catching the light upon a white ground, or screen, he found the illuminated circle larger than, according to the size of aperture, might have been pre-estimated. He next proceeded to make in the shutter of the darkened room a second aperture for light, and then, on a single screen, caught the two light-discs from the two apertures at such a distance that the light-discs partly overlapped each other. Then Grimaldi observed, around each disc of light, a zone or ring of darkness, which, after the manner of the discs themselves, intersected each other. He also observed that the area which lay within both the rings was very much brighter than that which lay inside either one of the rings alone. Furthermore, the border of each disc was dark in the illuminated area of the other circle. Grimaldi’s conclusion was: “*An illuminated body can become darker, when to the light which it receives is added other light.*” As will readily be perceived, Grimaldi did not eliminate from his experiment the influence of diffraction. He took, however, the very first step toward a knowledge of the interference of light, while further steps remained to be taken by Thomas→Young, and especially by Jean Augustin→Fresnel. American Encyclopedia of Ophthalmology, Vol.7, p.5650-5651. Albert, DSB (extended biography).

Grimaud, Aimé (1789-1866) French physician who paid considerable attention to diseases of the eye. Born at Angers, he received his medical degree in 1818, became physician to the Bureau of Charity, and lectured for many years on internal medicine. Grimaud’s only ophthalmologic writing was *“Traité de la Cataracte: Moyens Nouveau de la Guérir sans Opération Chirurgicale”* (Paris, 1842). American Encyclopedia of Ophthalmology, Vol.7, p.5651.

Grimm, Johann Friedrich Karl (1737- ?) German botanist and physician, who devoted considerable attention to diseases of the eye. Born in Eisenach, he received his medical degree at Göttingen in 1758, and settled as general practitioner in Eisenach. He made an

excellent translation of the Hippocratic Collection (First ed., Glogau, 1781-92; 2d ed., Glogau, 1837-39). His only ophthalmologic writing was his graduation dissertation, entitled "*De Visu*" (1758). American Encyclopedia of Ophthalmology, Vol. 7, p. 5651.

Grimsdale, Harold Barr (1866-1942) British ophthalmologist. Grimsdale received his education at Winchester, Caius College, Cambridge and St. George's Hospital. Grimsdale took the Cambridge M.B. in 1892 and was House Physician at St. George's Hospital. The retirement of Brudenell → Carter left → Frost single handed and Grimsdale was chosen ophthalmic registrar and at the same time he went to Moorfields to work under William Lang whose Chief Assistant he became. He took the F.R.C.S. Eng. in 1894. Towards the end of the 19th century he joined the staff of the Royal Westminster Ophthalmic Hospital. Grimsdale was the author of three books: one about refraction was written early in his career, followed by a student's *Handbook of Ophthalmic Operations* which was later elaborated with the help of Elmore Brewerton to a well known *Textbook of Ophthalmic Operations*, London 1907 of which three editions were published (1907, 1920 and 1937). BJO 26, 284-285, 1942; Times 9. May 1942, Brit med J. 1942, 1:655; LFRCS 1930-1951:354-355. JPW

Griti, Rocco (1828-1920) born in Bergamo Province, Italy, received his M.D. at Pavia in 1853, and from 1865 to 1892 was chief surgeon at the Ospedale Maggiore in Milan. He wrote: *Dell' ottalmoscopo e delle malattie end-oculari per esso riconoscibili*. Milano 1862. Albert

Groenouw, Arthur (1862-1945) German ophthalmologist born near Raciborz in Poland. Groenouw received his M.D. in 1886 at Breslau, where he became lecturer in 1892 and professor of ophthalmology in 1899. He wrote: *Anleitung zur Berechnung der Erwerbsfähigkeit bei Sehstörungen*. Wiesbaden 1896.

Grom, Edward (1917-1998) Venezuelan ophthalmologist from Caracas. He was born in Rohatyn, Poland. He was graduated summa cum laude as a doctor of medicine 1947, in Warsaw, Poland. He subsequently moved to Venezuela, where he was regraduated as a doctor of medicine on 1958. Although he spent his professional life in Caracas, he passed the American Board of Ophthalmology in 1961 and became a fellow of the American College of Surgeons in 1963. He was promoted to full professor in the Department of Ophthalmology at the University Hospital in Caracas in 1963, and from 1976 to 1985 he was chairman of the Department of Ophthalmology at the University Hospital in Caracas. He was a fellow of many ophthalmological societies in his own country, France, the United Kingdom, and the United States, and was awarded many distinctions and honors throughout his career in Venezuela and abroad. Here is a short list of some of these honors: in 1970, he was made a director of the Institute of Research in Ophthalmology in Caracas; in 1976, he was elected a member and secretary-general of the *Academia Ophthalmologica Internationalis*; in the same year, he was awarded the Francisco de Miranda Order First Class. He was also elected vice president of the International Glaucoma Congress in Miami in the same year. In 1978, he was elected a member of the International Council of Ophthalmology and, in the same year, was honored with the Jose Maria Vargas Order First Class. In 1979, he was elected co-chairman of the International Study Committee on Teaching in Ophthalmology. He was elected vice president of the Academia Ophthalmologica Internationalis in 1980 and, in 1986, was chosen as the guest of honor of the *XXV International Congress of Ophthalmology* in Rome. In the same year, he was awarded the highest Venezuelan decoration, the Order of Liberador. He was elected an Honorary Member of the Medical College of Merida State in Venezuela and was given the "La Sapienza" Medal of the Istituto d'Oftalmologia in Rome, Italy, in 1987. In 1990, he was elected an honorary member of the Italian Ophthalmological Society. Grom was a prolific contributor to the scientific literature. He was responsible for 360 publications, mostly on comparative anatomy of the eye, the pathology of eye tumors, surgery of the retina, psychophysiology of vision, and the history of ophthalmology and ethics. He was also responsible for 9 books on many aspects of ophthalmology. The last of these was entitled "*To My Students*," in which he wrote about his philosophy of the practice and ethics of ophthalmology. Arch Ophthal 117, 981, 1999

Grönholm, Väinö (1868-1939) Finnish Ophthalmologist, Helsinki, Finland. He graduated from the University of Helsinki in 1896 and he served as a resident in Ophthalmology 1896-1900. He completed his training by travelling in Sweden, Norway,



Väinö Grönholm

Denmark, Germany, Switzerland, Belgium, Holland, Italy and France. He presented his doctoral thesis at the University of Helsinki in 1900. He had completed it in Heidelberg under Professor Th.→Leber and it dealt with the effects of eserine on aqueous flow (*Experimentelle Untersuchungen über die Einwirkung des Eserins auf den Flüssigkeitswechsel und Circulation in Auge*. Albrecht v Graefe's Archiv f Ophthalmol 1900:49:620-711). He served as Professor of Ophthalmology at the University of Helsinki 1912-1935. The number of his scientific papers exceeds one hundred and can be found in the leading ophthalmological journals. His interests were trachoma, glaucoma, hereditary eye diseases and even experimental ophthalmology. At the International Congress of Ophthalmology in Amsterdam in 1929, he gave the Scandinavian and Baltic experience in fighting trachoma. He served as a long-time member of the editorial board of *Klinische Monatsblätter für Augenheilkunde*, Albrecht v Graefe's Archiv für *Ophthalmologie* and he was one of the founders of *Acta Ophthalmologica*. Grönholm was an excellent teacher. At the request of the Faculty of Medicine, University of Helsinki, he reorganized the undergraduate curriculum to consist of rigid courses by which the medical students lost their academic freedom. During his time in the chair there was a reduction of trachoma patients by 50%. He served as the President of the Finnish Ophthalmological Society 1913-1914, and 1931-1932. He was rewarded by becoming its Honorary Member, he was also appointed Honorary Member of the Mexican Ophthalmological Society and Honorary Doctor of Medicine at the University of Uppsala, Sweden. [by Ahti Tarkkanen]

Gross, Samuel David (1805-1884) American general surgeon of Philadelphia, who was also widely known as an operator on the eye. He was born near Easton, PA., the son of Philip and Juliana Brown Gross. After a classical education, he studied with Dr. Joseph K. Swift, of Easton, and also with Prof. George McClellan, of Philadelphia. Entering Jefferson Medical College in 1826, he there received his medical degree two years later, his graduation thesis being entitled "*The Nature and Treatment of Cataract.*" He settled at once in Philadelphia, but soon removed to Easton, then to Cincinnati, Ohio, where, in 1833, he became Demonstrator of Anatomy in the Ohio Medical College. Two years later he was made Professor of Pathological Anatomy in the Medical Department of the Cincinnati College. Four years later he moved to Louisville, where he was professor of surgery in the University of Louisville for ten years. In 1850 he moved to New York City, where he succeeded Dr. Mott in the chair of Pathological Anatomy. The following year he returned to his former position at Louisville. In 1856, however, he returned to Philadelphia, in order to accept the chair of surgery in the Jefferson Medical College—a position which he held till about two years before his death. Dr. Gross was a very prolific, as well as a clear and cogent, writer. His most important work, no doubt, was the well known "*A System of Surgery*", 2 vols., Philadelphia 1859 [GM 5607] which passed through many editions. He wrote, however, a number of other important volumes: *Lives of eminent American physicians and surgeons of the nineteenth century Philadelphia* 1861; *John Hunter and his pupils Philadelphia* 1881; He contributed "*Surgery*" in E.H. Clarke *A century of American Medicine* 1876. He was also one of the founders and chief editors of the *North American Medico-Chirurgical Review*. He received numerous honors, among them D. C. L., Oxford, and LL.D., Cambridge. American Encyclopedia of Ophthalmology, Vol. 7, p. 5652-5653. Albert

Grosseteste Robert (13th century) British. *Magister scholarum* of the University of Oxford and a proponent of the view that theory should be compared with observation, Grosseteste considers that the properties of light have particular significance in natural philosophy and stresses the importance of mathematics and geometry in their study. He believes that colours are related to intensity and that they extend from white to black, white being the purest and lying beyond red with black lying below blue. The rainbow is conjectured to be a consequence of reflection and refraction of sunlight by layers in a 'watery cloud' but the effect of individual droplets is not considered. He adheres to the view, shared by the earlier Greeks, that vision involves emanations from the eye to the object perceived. (JPW)

Grossmann, Karl A. (1851-1916) British ophthalmologist of German origins. He received his M.D. at Freiburg i.B. in 1889 and afterwards took the Fellowship of the Royal College

of Surgeons of Edinburgh. He was appointed the first ophthalmic surgeon of the Stanley Hospital in Liverpool. He was for a time vice-president of the Liverpool Medical Institution and took an active interest in the British Medical Association. He wrote widely on ophthalmic subjects and more specially on the leprous diseases of the eye, the mechanism of accommodation and on colour blindness. Grossmann was one of the founders of the "Ophthalmic Review" and for some time editor of that journal with →Priestley Smith. *The Ophthalmoscope*, 1916, p.564-565.

Grosz, Emil (1865-1941) Hungarian Ophthalmologist. Emil Grosz was born in Nagyvarad where his father Albert practiced as ophthalmologist. He studied medicine in Budapest, and in 1888 joined the staff of Schulek's Clinic. In 1895 he was awarded Privatdocent and in 1900 Associate Professor. In 1905 he received invitation to the Chair of Ophthalmology of the Budapest University where he remained for 31 years, to the end of his life. After his appointment, his main concern was to find adequate premises for his small and out-moded hospital. He achieved this in 1908 and the new building in Maria Street was built and equipped according to his plans. To the present day the building is the II. Eye Clinic of the University Medical School. Professor Grosz was a first-rate organizer, a learned clinician and a splendid surgeon. His proximity was exceptional. His literary activities embraced practically the whole field of ophthalmology. He contributed over 350 articles to various scientific journals and more than 120 to daily papers. His contributions appeared in Hungarian, German, English and French. He was the author of several books. Among them mention should first be made of the 3-volume '*Handbook of Ophthalmology*', edited in collaboration with Karoly →Hoor, to which he also contributed several chapters. Among his numerous qualities his talent for organizing was outstanding. It was partly owing to this fact that from 1902 to 1918 he served as government Commissioner to check trachoma, and from 1913 to 1917 as Commissioner of Hospital Affairs in Hungary. Thanks to his initiatives the State Eye Hospitals of Budapest, Szeged, Brasso, Zsolna and Perlak were founded primarily for the treatment of trachomatous patients. In 1929 he was elected Chairman of the '*International Organisation against Trachoma*'. The Organisation was founded in the same year in Amsterdam. He was also appointed member of the Council of the 'Association Internationale de Prophylaxie de la Cecite'. Professor Grosz was one of the original members of the Hungarian Society of Ophthalmology and was Chairman from 1905 to 1920. He edited the journal 'Szemo-szet' ('Ophthalmology') from 1904 to 1935, and was honorary member of 12 medical and Ophthalmological Societies. From 1938 he was Chairman of the Central Committee for Postgraduate Training of Physicians. He was also founder and co-editor of a journal devoted to postgraduate training, entitled 'Orvoskepzes' ('Training of Doctors'), for more than 28 years. He was member of the board of the Forensic Council, the Hungarian Council for Public Health and the Council for Higher Education. In recognition of his services he was awarded the title of Royal Court Councillor. Magda Radnot: *Famous Hungarian Ophthalmologists* (Budapest, 1970) BJO 26,286-287,1942

Gruening, Emil (1841-1914) American ophthalmologist from New York. Gruening was the *first* to draw attention to the danger of blindness from wood alcohol. *The Ophthalmoscope*, 1914, p. 520.

Grunert, Karl (1867-1905) German otologic surgeon, born in Berga, Germany, received his M.D. in 1889 at the University of Halle, where he became lecturer (1896) and then professor (1900) of otology. He wrote in ophthalmology: *Der Dilatator Pupillae des Menschen, ein Beitrag zur Anatomie und Physiologie der Irismuskulatur*. Wiesbaden 1898. Albert

Grut, Edmund Hansen (1831-1907) Danish ophthalmologist, born in Copenhagen, he first studied medicine in that city, and later ophthalmology in Paris and Berlin. He received his degree in 1857, presenting as dissertation a treatise on the ophthalmoscope. From 1859-61 he was first assistant at the Surgical University Clinic of the Frederick Hospital, Copenhagen, and in 1863 began to give instruction in diseases of the eye as privatdocent. From 1882-1890 he was full professor of ophthalmology at the Copenhagen University. He was a man of very great influence over the younger generation of Danish ophthalmologists. In 1889 he delivered the Bowman lecture before the Ophthalmological Society of the United Kingdom, of which he was an honorary member. He contributed

numerous articles, chiefly on ophthalmologic subjects, to the Danish journal "Hospitals Tidende". American Encyclopedia of Ophthalmology, Vol.7, p.5653-5654.

Guenz, Justus Gottfried (1714-1751) German anatomist, physician and surgeon, who devoted considerable attention to ophthalmology. Born in Königstein, Germany, he received his early education from his father, a highly educated minister, and his medical training at Leipsic, where he graduated in 1738. After a number of "Wanderjahre", he settled at Leipsic, and became in 1747 professor of physiology, and, a little later, of anatomy and surgery. He was a celebrated lithotomist, and wrote a number of articles on cataract and glaucoma. In 1751 he was appointed body-physician to the Elector of Saxony. Shortly afterward he died. American Encyclopedia of Ophthalmology, Vol.7, p.5655.

Guépin, Ange (1805-1873) French ophthalmologist of Nantes. He was born in Pontivy, France, and received his medical degree in 1828. Having settled at Nantes, he there became professor of economic and industrial chemistry. In 1835 he became an ophthalmologist exclusively-so far at least as medicine is concerned, for he held a number of political offices. He was one of the founders of the *Revue Philosophique et Religieuse*. His medical works are as follows: 1. *Lettres à Ribes, de Montpellier, sur Divers Sujets de Méd., de Chir., et d'Hygiène*. (Nantes and Paris, 1835.) 2. *Etudes d'Oculistique*. (Paris, 1844.) 3. *Nouvelles Etudes Théoriques et Cliniques sur les Maladies des Yeux; l'Oeil et de la Vision*. (Paris, 1857.) 4. *Des Eaux Mineralisées*. (Paris, 1857.) 5. *Philosophie du XIXème Siècle* (1854) American Encyclopedia of Ophthalmology, Vol.7, p.5656. Albert.

Guépratte, Alphonse Pierre Prosper (1808-1847) A French naval physician, who seems to have devoted some attention to the eye. Born in Brest, he received his medical degree in 1842 at Montpellier. After about five years of practice in this city, he died, aged only 39 years. His only ophthalmologic writing was "Héméralopie des Pays Chauds, Observations Recueillies à Bord de la Frégate Armide," etc. (*Gaz. Méd. de Montpellier*, 1847). American Encyclopedia of Ophthalmology, Vol.7, p.5656.

Guérin, Jules René (1801-1886) French physician, pathologist, and surgeon, who paid considerable attention to ophthalmology. Born in Boussu, Belgium, he obtained his medical degree at Paris in 1826. Two years later he was editor and proprietor of the *Gazette de Santé*. In 1838 he founded the Orthopedic Institute at Passy, where he himself

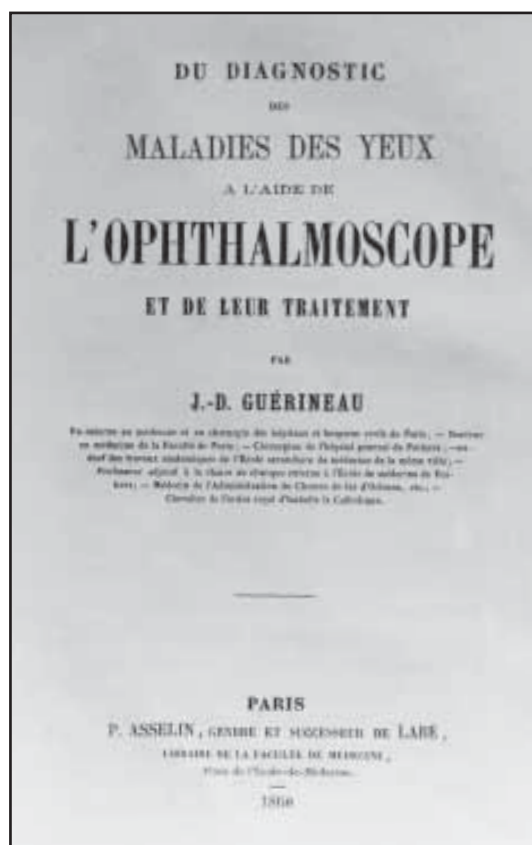
performed a large number of orthopedic operations. In 1839 he was appointed Orthopedic Surgeon at the Children's Hospital. His only ophthalmologic writing was *Mém. sur l'Etiologie Générale du Strabisme* (2d ed., 1843). American Encyclopedia of Ophthalmology, Vol.7, p.5656. Albert

Guérin, Pierre (1740-1827) French surgeon and ophthalmologist. Born in Lyons, France, he became a Fellow of the Royal College of Surgeons at Lyons, surgeon-in-chief of the Lyon Hôtel Dieu, etc. He died in Bordeaux.. Guérin's only ophthalmologic writing was *Traité des Maladies des Yeux* (Lyons, 1769). American Encyclopedia of Ophthalmology, Vol.7, p.5656. Albert

Guérineau, Joseph Désiré (?- ?). French ophthalmologist. He was Interne at the Hopitaux et Hospices civils de Paris, he had received his MD degree from the Paris medical faculty and was adjunct Professor to the Ecole de Medecine de Poitiers. He received the Ordre Royal d'Isabelle la Catholique. He wrote : *Du diagnostic des maladies des yeux a l'aide de l'ophthalmoscope* Paris 1860 (2nd edition 1861), *Du diagnostic différentiel à l'aide de l'ophthalmoscope des amauroses vraie et simulée* Paris 1860. JPW

Guiata, Luigi (? – 1914) Italian ophthalmologist, professor of ophthalmology in Florence and one of the editors of the "Annali di Ottalmologia". He was director of the ophthalmic hospital in Florence. The Ophthalmoscope, London 1915, p. 312.

Guido de Cauliaco. See **Guy de Chauliac**.



Guido see **Guy de Chauliac**.



Jacques Guillemeau

Guillemeau, Jacques (1560-1613) French surgeon, and one of the brightest pupils of Riolan, Courtin and Ambroise Paré, he became physician-in-ordinary to the King of France and a surgeon of world-renowned ability. He was not very great as an ophthalmologist, but his book, *Des Maladies de l'Oeil qui sont en Nombre de Cent Treize aux quelles il est Sujet* (Paris, 1585)[GM 5818], (English edition: *A worthy treatise of the eyes*. London 1587-88),(Flemish edition: *Tracktaet van alle de ghebreken der ooghen* Dordrecht 1597), on account of the excellence of its matter and the clearness of its literary style, was very popular in Germany and England, as well is in France, for many years. In England, indeed, it was well enough thought of to form the sum and substance of Banister's *One Hundred and Thirteen Diseases of the Eyes and Eyelids*, London 1622 [GM 5820]which, by the way, seems to have been the earliest general work on eye diseases in the English language. Guillemeau's work is based almost entirely on the Arabians and the Greeks, but it contains a few, if unimportant, original operations among them one for lid-coloboma .American Encyclopedia of Ophthalmology,Vol.7,5656-5657. Albert.

Guillié, Sebastian (1780-1865) French ophthalmologist of Paris. He was born at Bordeaux and received his professional degree at Paris in 1807. For a short time he was a field physician in the army. Then he became superintendent of the Institution for the Blind. Almost immediately afterwards he was arrested and imprisoned by mistake and so remained in durance for a year. He seems to have been a man of quackish tendencies, for he advertised and sold at a high price a "*Droque Antiglairieuse*," whereby he achieved a fortune. His writings are as follows: 1. *Traité de l'Origine des Glaires* (devoted to the exploitation of his nostrum, and vigorously pushed to its 31st edition). 2. *Rapport Fait à S. E. le Ministre de l'Interieur, par le Docteur Guillié, sur l'Etat de l'Institution Royale des Jeunes Aveugles, pendant les Exercices de 1816 et 1817* (Paris, 1818). 3. *Nouvelles Recherches sur la Cataracte et la Goutte-Sereine* (Paris, 1818). 4. *Essai sur l'Instruction des Aveugles, etc.* (Paris, 1817; 3d ed., 1820, Engl.edition : *An essay on the instruction and amusements of the blind*. London 1819). 5. *Rapport Fait à MM. les Membres et les Souscripteurs de la Clinique Oculaire de Paris pendant 1820, 21* (Paris, 1821),. 6. *Bibliothèque Ophthalmologique, ou Recueil d'Observations sur les Maladies des Yeux faites à la Clinique de l'Institution Royale des Jeunes Aveugles; avec des Notes de Dupuytren* (Paris, 1820, 21). American Encyclopedia of Ophthalmology,Vol.7,p.5657.Albert:Source Book of Ophthalmology, p.134-135

Guilloz, Theodore (1867-1916) French physician, pupil of Augustin →Charpentier. Guilloz was a certain time much occupied with physiologic optics and he was one of the *first* to obtain good photographs of the eye ground. After the discovery in 1896 of X-Rays by W.C. Roentgen , Guilloz devoted himself to radiography. He became himself an early victim of the Roentgen rays.AJO,1:294.

Gullstrand, Allvar (1862-1930) Swedish Ophthalmologist and Nobel Laureate Gullstrand qualified in medicine at Uppsala and was awarded the Doctorate of Science 1890, with a thesis on the theory of astigmatism. In 1894 at 32 years of age he was elected the first Professor of Ophthalmology at Uppsala. His theoretical mathematical studies on replacing surfaces and optical systems, the introduction of the schematic eye and the replacement of the conceptions of focal distance with diopter contributed to a considerable extent to the development of physiological optics (*Allgemeine Theorie der Monochromatischen Aberrationen und Ihre Naechsten Ergebnisse fuer die Ophthalmologie*. Uppsala, 1900; *Helmholtz Handbuch der physiologischen Optik*, Dritte Auflage, Band I, Verlag von Leopold Voss, Hamburg & Leipzig, 1909, *Einführung in die Methoden der Dioptrik des Auges des Menschen*. Verlag von S. Hirzel, Leipzig, 1911). The last two books were translated into English by the Optical Society of America in 1924, (Helmholtz's *Treatise on Physiological Optics*, Volume I, ed. J. P. C. Southall). The many constructions of ophthalmological instruments; for example the slit-lamp, the electric hand ophthalmoscope and the binocular ophthalmoscope for reflex free stereo-examination of the fundus enlarged essentially the range of ophthalmological diagnostics. Gullstrand was awarded the Nobel Prize in Medicine and Physiology in 1911 and in 1914 he obtained a personal chair in Physiological optics at Uppsala. At his 60-years birthday

the Swedish Society of Medicine founded the Gullstrand Gold Medal. The prestigious medal is awarded every tenth year to a leading ophthalmologist irrespective of nationality. (by L. Berggren)

Gunn, Donald (1862? –1939) British ophthalmologist. Qualifying M.R.C.S. in 1883 he took the Fellowship in 1889 and from 1889 to 1891 was House Surgeon at Moorfields as a colleague of D.J. Wood, of Cape Town, and the two remained fast friends throughout life. Gunn was elected to the staff of the Royal Westminster Ophthalmic Hospital in 1895 and did much good work both as a clinician and pathologist. He was also on the staff at Great Ormond Street. A notable career in ophthalmology seemed open to him when he retired in 1902, owing to ill health. He wrote: *Injuries and Diseases of the Eye*, in *Catalogue of the Westminster Hospital Museum*, 1899. All his life he was interested in art and literature and this, with travelling, sufficed for him. It was characteristic of the man that his death was recorded on the front page of *The Times* with the mere date and name, not even his F.R.C.S. being mentioned. BJO 23,363-64,1938;LFRCS 1930-1951:358-359

Gunn, Robert Marcus (1850-1909) English ophthalmologist, discoverer of "Gunn's dots", or, as he himself preferred to call them, "Crick dots". "Born in Dunnet" Sutherlandshire, of Scandinavian stock, he received his early education at the Thos. Fraser School in Golspie. Proceeding to the University of Edinburgh, he there received the degree of M. A. in 1871 and the M. B. and C. M. in 1873. Then for a number of months he studied at Vienna with →Jaeger. Returning to London, he became at the Royal London Ophthalmic Hospital ("Moorfields") Junior House Surgeon in August, 1876, and Senior House Surgeon in the following December. In 1882 he became an F. R. C. S. (England), and in 1883 Assistant Surgeon, in 1888 Surgeon, to the Royal London Ophthalmic Hospital. Among his other hospital appointments were: Ophthalmic Surgeon to the National Hospital for the Paralysed and Epileptic, Ophthalmic Surgeon to the Hospital for Sick Children, and Assistant Ophthalmic Surgeon to the University College Hospital. From 1896 to 1899 he was Vice President, and from 1907 to 1909 President, of the *Ophthalmological Society of the United Kingdom*. In 1898 he was Vice-Chairman of the Section of Ophthalmology of the *British Medical Association*, and, in 1906, at Toronto, Chairman of the same assemblage. He delivered a number of addresses on ophthalmologic subjects before various foreign ophthalmologic bodies, perhaps the most important being "On Certain Affections of the Optic Nerve" before the *American Academy of Ophthalmology and Oto-Laryngology*. His original work in the field of human ophthalmology was almost wholly on the subject of the optic nerve, the retina, and the cornea; the anatomy, physiology, and diseases of these structures. His researches in comparative ophthalmology, especially comparative anatomy and histology, are very extensive and important. He wrote no books, but published a number of articles, the chief of which are: 1. *Peculiar Appearance of the Retina*. ("Crick-dots," or "Gunn's dots," B. L. O. H. Reports, III.) 2. *Amblyopia from Bisulphide of Carbon*. (T.O.S., Vol. VI.) 3. *Unilateral Nystagmus*. (Ibid., Vol. VII.) 4. *Toxic Amblyopia*. (Ibid., Vol. VII.) 5. *Growth of New Lens-Fibres*. (Ibid., VIII and XV.) 6. *Peculiar Foveal Reflex in Myopic Amblyopia*. (Ibid., Vol. VIII.) 7. *Congenital Malformations of Eye*. (*Ophthalm. Review*, Vol. VIII, 2 Lectures, 1889.) 8. *On Sympathetic Inflammation of the Eyeball*. (*R. L. O. H. Reports*, Vol. XI, pp. 78-102, and 273-326.) 9. *Note on Certain Retinal Reflexes Visible with the Ophthalmoscope*. (Ibid., Vol. XII, 348.) 10. *Light-Perceptive Organs and Light and Color-Perception*. (Ibid., Vol. XII, p. 101.) 11. *Ophthalmoscopic Evidence of Increased Arterial Tension, and of General Arterial Disease*. (T. O. 8., Vols. XII, XVIII, and XXIV.) 12. *Pemphigus of Conjunctiva*. (Ibid., Vols. XIII and XV.) 13. *Hemorrhage into Optic Nerve Sheath*. (Ibid., Vol. XIV.) 14. *Acute Bullous Eruption of Skin and Conjunctiva*. (Ibid., Vol. XVI.) 15. *Retinitis Circinata*. (Ibid., Vol. XVIII.) 16. *Bowman Lecture-Visual Sensations*. (Ibid., Vol. XX.) 17. *Keratitis Nodosal, Family Case*. (Ibid., Vols. XXII and XXIX.) 18. *Family Optic Atrophy*. (Ibid., Vol. XXVII.) 19. *Presidential Address*. (Ibid., Vol. XXVIII.) 20. *Hemorrhagic Disease of Retina, with Obliteration of Veins*. (*Helmholtz Festschrift*, Plate II, 1891.) *American Encyclopedia of Ophthalmology*, Vol. 7, p. 5661-5663. *The Ophthalmoscope* 1910, p. 64-69 (by Edward →Nettleship).

Gunning, Willem Marius (1834-1912) Dutch ophthalmologist of considerable local reputation. Born at Hoorn, Holland, he received his medical degree at Utrecht, Sept. 11, 1857. For a time he was assistant physician at "Buiten-Gasthuis," but always, owing to the influence of →Donders, under whom he had studied in the University, he desired to be an

ophthalmologist. In accordance with this desire, he began about 1863 to devote himself to ophthalmology exclusively. In 1877 he was appointed -full professor of ophthalmology at the Amsterdam University. He wrote a few articles and reports, but no books. American Encyclopedia of Ophthalmology, Vol.7,5663.

Günz, Justus Gottfried (1714-1754) German, surgeon, obstetrician, medico-historian and ophthalmologist. Born at Königstein, Germany, he received his training in the liberal arts at the gymnasium in Görlitz, and his medical education at the University of Leipzig from 1732-38. In 1747 he was appointed to the chair of physiology in his alma mater, and, a little later, to those of anatomy and surgery in the same institution. In 1751 he became official physician to the Elector of Saxony, but very soon afterward died. According to →Hirschberg, his ophthalmologic writings are as follows: 1. *Diss. de Staphylomate, etc.* (Leipzig, 1748.) 2. *De Suffusionis Natura et Curatione.* (Liepzig, 1748.) The first of these works, according to the same authority, is of very little value, while the second possesses a high degree of merit because of its clear and exact description of the cataract operation. American Encyclopedia of Ophthalmology, Vol.7,p.5667.



Bing-Kuan Guo

Guo, Bing-Kuan (1904-1991) Chinese Ophthalmologist. He was born in Fujian Province, southern part of China. In 1924~1928, he studied in Yan Jing University, Union Medical College, Beijing. During 1928~1936, he studied at the University of Vienna, where he had Ophthalmology training. He studied Ophthalmology under Prof. A. Pillat and received Doctorate of Medicine in 1936. On return to China in 1936, he was appointed to be the professor and the director of Ophthalmology department in Medical College of Tong Ji University, GuiYan Medical College, Shanghai National Defense Medical College during the war. He further extended his career as a visiting scholar to the Manhattan Eye and Ear Hospital of Columbia University, New York, in 1945. From 1949 to 1991, he served as the professor and the director of the Ophthalmology Department of Shanghai Medical University (SMU). In 1952, Prof. Guo and his ENT colleagues founded the Eye and ENT Hospital, Shanghai Medical University, which is one of the major special eye center in China. It has 250 beds and an average of 800 out patients every day. Many patients are referred from all over the country and more than 20 fellows were trained each year. In 1978, he founded the Eye Research Institute in the Hospital, to carry out basic research in addition to clinical works. During the period of 1980s, Prof. Guo was the vice-chairman of the Chinese Ophthalmologic Society, Chairman of Chinese Ophthalmologic Society, Shanghai Branch, and he was the co-editor of the Chinese Journal of Ophthalmology and the co-editor of the Chinese Medical Encyclopedia, Volume of Ophthalmology. Prof. Guo devoted his major efforts to medical education, and his students were distributed all over the country and most of them have become the leaders of Ophthalmologic Society as well as departments. Prof. Guo published more than 40 papers, and his book *Ophthalmology* having five editions, is the major Ophthalmology reference book read by almost Ophthalmologists in China and frequently cited in the papers published in China.(SM)

Guo, Jingqiu (1933-) Chinese Ophthalmologist, Professor and Director of the Department of Pediatric Ophthalmology, First Teaching Hospital of Beijing Medical University). Born in Jinan, Shan Dong Province, she graduated from Beijing Medical University in 1957 and studied Ophthalmology at the University. Since 1985, she serves in the present position as above, and conjointly as the Director of Research Center of Vision Development and Eye Diseases for Children, and the Director of the National Prevention and Therapy Center of Pediatric Amblyopia and Strabismus supported by the Ministry of Public Health. She is the Chief-Editor of *Chinese Journal of Amblyopia and Pediatric Ophthalmology* and also editor of the *Chinese Journal of Ophthalmology*, *Chinese Journal of Practical Ophthalmology*, *Journal of China Ophthalmology*, *Journal of Ophthalmic Research*, and *Journal of Shanghai Oculotorhinolaryngology*. She also serves as Commissioner of Committee of Chinese Science and Technology for Health, Director of Society of Chinese family education, Chairman of the Committee for preventing and treating eye diseases affiliated to Association of Prepotent Procreate. Her major interest is vision development, amblyopia, squint and pediatric Ophthalmology, and published more than 80 papers and wrote 4 monographs in these fields. Her program for the prevention and therapy of amblyopia in children is adopted in the five-year plan of the Ministry of Public Health. Through outstanding contributions, she received Awards in 1981, 1982, 1985, 1987,1988, 1993,1994, 1995 and 1996. (Department of Pediatric Ophthalmology,

First Teaching Hospital, Beijing Medical University, Beijing 100034, P. R. China.
phone: +86-10-65125254; fax:+86-0-65599946) (SM)

Guo, Xirang (1939-) Chinese Ophthalmologist, Director of Henan Institute of Ophthalmology, Zhengzhou. He graduated from Henan Medical University in 1964, and studied Ophthalmology at the University and received Doctor of Medical Sciences in 1979 (thesis: Treatment of serous retinopathy with argon laser combined with fluorescein angiography. *Chin. J. Ophthalmol.* 15: 254, 1979). After having worked as Associate Professor (1986-1991), he was promoted to Professor in 1991 and serves in this position to present. The positions held in professional Societies or Organizations are Chairman, Henan Branch, Chinese Association of Ophthalmology in Chinese Medical Association, Member, Specialty Group of Ocular Fundus Diseases, Chinese Association of Ophthalmology in Chinese Medical Association, Member, Laser Medicine Specialty Group in Chinese Medical Association, Executive member, Henan Medical Association and Member, Retinal and Vitreous Surgery Specialty Group, Chinese Association of Ophthalmology in Chinese Medical Association. He is an editor to the following journals: *Chinese Ophthalmic Research*. Editor-in-chief, *Henan Medical Research*. Member of Editorial Board, *Chinese Journal of Ocular Fundus Diseases*. Member of Editorial Board, *Chinese Journal of Ophthalmology*. Member of Editorial Board, *Journal of Clinical Ophthalmology*. Member of Editorial Board, *Chinese Journal of Practical Ophthalmology*. Member of Editorial Board, *Henan Medical Information*. Member of Editorial Board and *China Journal of Ophthalmology and Otolaryngology*. Member of Editorial Board. He wrote many books, e.g. *Ophthalmology. Standard Training Course for Clinical Residents*. Chief-editor Henan Medical University Publishing House. 1997 and *Modern Vitreoretinal Surgery*. Chief-editor, Haitian Publishing House, 1997. He has published more than 45 original articles, and some examples are " *A study on relationship between PVR and lipid peroxidation after retinal detachment*. *Chinese Ophthalmol. Res.* 1999,17(3):220", " *Operative management of the dislocation of intraocular lens into the vitreous and its reposition*. *Chinese Ophthalm. Res.* 1999,17(6):446" and " *Changes of the Glucose catabolism in rabbit retinal pigment epithelium after experimental retinal detachment*. *Chinese Journal of Ocular Fundus Diseases.* 1999, 15(1):40-41". For his accomplishments, he received many Honor Awards, e.g. Provincial excellent award of science and technology, 1978, Provincial significant award of science and technology, 1980, Provincial excellent award of scientific and technological progress, 1986 and Provincial award of scientific and technological progress, 1995. (Henan Institute of Ophthalmology, 7 Weiwu Road, Zhengzhou, Henan 450003 The People's Republic of China. Tel: +86-0371-5991123; Fax: +86-0371-5952907; E-mail: ykstss53@public2.zz.ha.cn) (SM)

Gurd, Dudley Plunkett (1910-1987) British ophthalmologist, Surgeon Rear-Admiral. He entered the Royal Navy as a surgeon lieutenant in 1934. In 1943 he was awarded the Gilbert Blane medal for services to naval medicine. In 1952 he was seconded to St John Ophthalmic Hospital as warden, a post he held for three years during a most difficult time in the hospital's history when it was housed in three separate buildings in the old walled city of Jerusalem. His hard work in most trying conditions was rewarded by the Queen in the form of a knighthood of the Most venerable Order of the Hospital of St John of Jerusalem. He served in naval hospitals in Malta, Barrow Gurney, Hong-Kong, Plymouth and Haslar. He ended his naval career as surgeon rear-admiral and medical officer in charge of RN Hospital, Bighi, until 1960 when he took up private practice as an ophthalmologist. *BJO* 1988, 72:400. *The Times* 25 August 1987.JPW

Guthrie, George James (1785-1856) British surgeon born in London Guthrie was apprenticed to a surgeon at thirteen and became a member of the Royal College of Surgeons at sixteen; he served from 1801 to 1807 as army surgeon in Canada and from 1807 to 1815, during the Napoleonic Wars, in Spain and Waterloo. He published a major treatise on gunshot wounds in 1815. Guthrie was also an excellent ophthalmic surgeon; he wrote important treatises on the subject and in 1816 founded the Westminster Ophthalmic Hospital, serving as its chief surgeon until 1838. He wrote: *A treatise on the operations for the formation of an artificial pupil* London 1819; *Lectures on the operative surgery of the eye* London 1823 (2nd ed 1827); *A practical treatise on the operative surgery of the eye*. 3d ed. London 1838. *On injuries of the head affecting the brain* London 1842. Albert. Brit. Museum.

Guthrie, Charles W. Gardiner (1817-1859) British surgeon and ophthalmologist of London. Charles was the son of George James Guthrie, and was trained at Westminster Hospital, where he became surgeon and lecturer on surgery. He became also surgeon at the Westminster Ophthalmic Hospital. He published : *On cataract and its appropriate treatment* London 1845. *On the Cure of Squinting* London 1840 (2nd. Edition also 1840?).

Guthrie, Fred Ashford (1872-1915) American ophthalmologist of La Salle, Illinois. Born at Aledo, son of Noah H. and Delilah Guthrie, he received his general education at the University of Illinois and his medical training at the Rush Medical College, at which institution he received the degree in 1896. Forming a partnership with Dr. J. M. Wallace at Aledo, he practiced for a time as general practitioner, but, afterwards studying ophthalmology and otolaryngology, he moved to La Salle, IL., where he practised as specialist in those branches until his death. American Encyclopedia of Ophthalmology, Vol.7, p.5667-5668.

Guthrie, Leonard George (1868-1919) This well known London, England, neurologist and pediatrician who was for a time physician to the Western Ophthalmic Hospital. His education was received at King's College School, Magdalen College, Oxford, and St.Bartholomew Hospital, London. He was always deeply interested in ophthalmology, and was a close student of the ocular relations of neurology and pediatrics. He was a brother to Anstey Guthrie, author of "Vice Versa," "The Giant's Robe," etc., whose pen name was F. Anstey. AJO 2, 1919, p.770

Guy de Chauliac (c.1300-1368) The greatest surgeon of the Middle Ages. He was born about 1300 at the village of Chauliac, or Cauliaeo, on the borders of Auvergne, France. Educated at Montpellier, Bologna, and Paris, he settled in Lyons, where he practised for a long time, and finally became physician-in-ordinary to three successive popes-Clement VI, Innocent VI, and Urban V at Avignon. Guido's greatest work is his "*Chirurgicae Tractatus Septem, cum Antidotario*" or "*Collectorium Artis Chirurgicalis Medicinae*" better known, however, as "*Chirurgia Magna*," because of another and smaller work by the same writer, entitled "*Chirurgia Parva*" The "*Chirurgia Magna*," a marvel of learning and of literary style, was *facile princeps* of all the works on surgery throughout Western Europe for many centuries. De Chauliac's writings on ophthalmology, so far as extant, are comprised in the second part of the seventh division of his "*Chirurgia Magna*." Opinions differ greatly as to the value of these 31 folio pages. →Pansier declares them to be an "uninteresting compilation"; →Hirschberg, on the contrary, says regarding them: "*I find this treatise better than almost any other which the European Middle Ages have bequeathed to us in our special branch; at all events, it was, in its day, more practical and instructive.*" The truth, in this instance, is probably with Pansier, for little that is really original appears in the book. The following passage, however, on cataract and "gutta serena," is memorable, as exhibiting, in a style at once terse and clear, the medieval views on cataract and amaurosis: "*Cataract is a cuticular blemish in the eye, in front of the pupil, which disturbs the sight. It consists of a foreign humor, which gradually descends into the eye, and hardens in consequence of the eye's coldness. Whether this humor collects between the cornea and the iris (as Jesus proves) or between the aqueous humor and the crystalline lens (as Galen pretends in the tenth book 'On the Use of the Parts') does not interest me just now. The first stage is called 'Illusion of the Sight;' the second, 'The Falling of the Water;' or, sometimes, 'Gutta,;' the third, or last, stage, 'Cataract,' because it obstructs the visual power, as the sluice of the mill, and as the waterfall from the sky obstructs the sun.*" Besides the general surgeries-magna and Parva-Guido also wrote a purely ophthalmologic monograph, no longer extant, entitled "*Manner of Life for Cataract-Patients.*" Concerning the origin of this book there runs a story. John, King of Bohemia, finding that he was going blind, sent to France for an oculist. The unfortunate eye-doctor arrived, but, proving unable to cure the irritable monarch, he was sewn up in a sack and cast into a river. An Arabian oculist was next sent for. He also was unsuccessful, and would, no doubt, have suffered a like fate with that of his Frankish confrere, but for the fact that he had been clever enough to arrange in advance for a "safe conduct." Then the king betook himself to Montpellier, there to consult the great de Chauliac. Guido, however, would not undertake the case. Instead, he wrote for his royal patient the little book in question-"*Manner of Life for Cataract-Patients.*" The king, however, does not seem to have been greatly cheered by

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

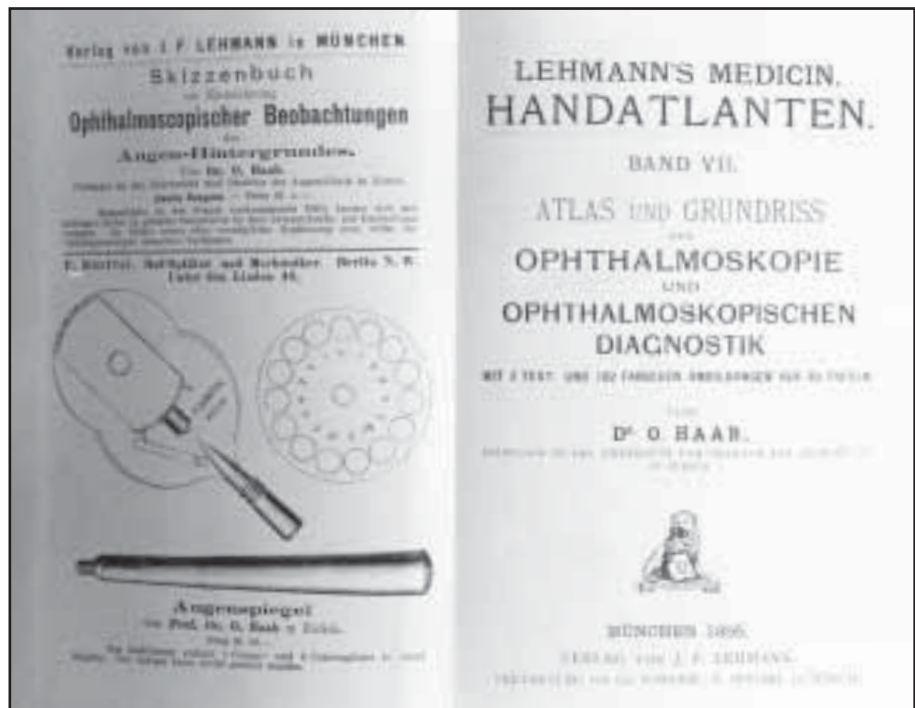
Gyotoku, Tateo (1862-1945) Japanese Ophthalmologist and Congressman. He graduated from Kumamoto Medical School in 1886, and studied Ophthalmology under Prof. KOMOTO Jujiro at Tokyo University. On his return to Kumamoto, he taught Ophthalmology at Kumamoto Medical School. He studied in Germany during 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*