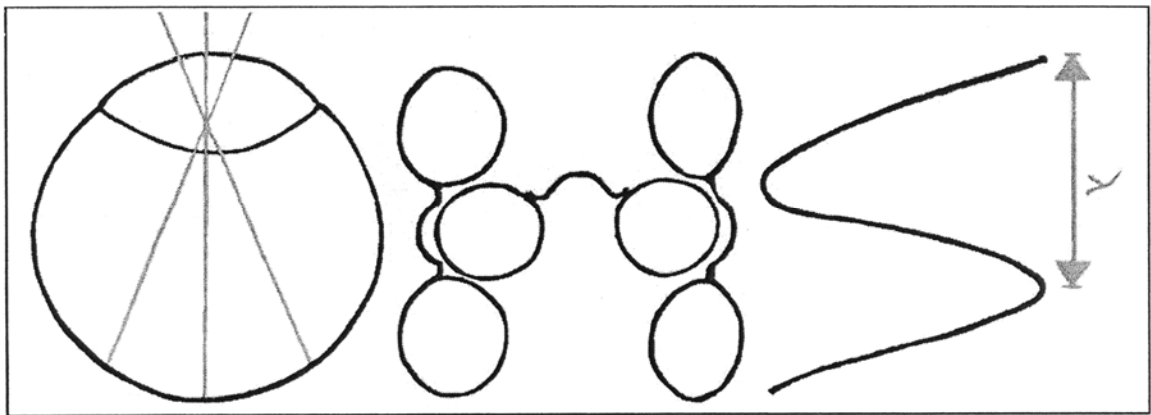


HINDSIGHT

Journal of Optometry History

April, 2012
Volume 43, Number 2



Official Publication of the Optometric Historical Society

Hindsight: Journal of Optometry History publishes material on the history of optometry and related topics. As the official publication of the Optometric Historical Society, Hindsight: Journal of Optometry History supports the purposes and functions of the Optometric Historical Society.

The purposes of the Optometric Historical Society, according to its by-laws, are:

- to encourage the collection and preservation of materials relating to the history of optometry,
- to assist in securing and documenting the recollections of those who participated in the development of optometry,
- to encourage and assist in the care of archives of optometric interest,
- to identify and mark sites, landmarks, monuments, and structures of significance in optometric development, and
- to shed honor and recognition on persons, groups, and agencies making notable contributions toward the goals of the society.

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The official publication of the Optometric Historical Society, published quarterly since its beginning, was previously titled:

Newsletter of the Optometric Historical Society, 1970-1991 (volumes 1-22), and

Hindsight: Newsletter of the Optometric Historical Society, 1992-2006 (volumes 23-37).

Hindsight: Journal of Optometry History began in 2007 with volume 38, number 1.

On the cover: The drawing represents OHS for Optometric Historical Society: the O an elementary schematic of an eye, the H three intersecting pairs of spectacles, and the S a representation of a light wave with the Greek letter lambda indicating one wavelength. The drawing artist was Diane Goss.

OHS website: www.opt.indiana.edu/ohs/opthohiso.html

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April, 2012

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Journal subscriptions are registered by joining the Optometric Historical Society. The cost of an institutional or library subscription is the same as for personal membership.

Manuscripts submitted for publication should be sent to the Editor at the email or postal address above. A Word document attached to an email message is the preferred means of submission. Paper copy submissions sent by postal service will also be considered.

OHS News

Dues Notice for 2012

A dues notice is enclosed with this copy of *Hindsight*. This volunteer organization greatly appreciates your support. The address and instructions for submitting your dues are included on the dues notice form.

Call for Nominations to the Executive Board

The terms of Irving Bennett and Chuck Haine on the OHS Executive Board will expire at the end of the 2012 calendar year. Please use the enclosed form for nominations to the Executive Board.

Reminisce-in at American Optometric Association meeting

The Optometric Historical Society will meet at the annual meeting of the American Optometric Association in Chicago on Thursday, June 28, 2012, at 3:00 pm at McCormick Place West in room W473. Rather than a tribute to Irv Borish as originally planned, the reminisce-in meeting will be an open discussion on optometry history and OHS.

OHS Officers for 2012

As specified in the OHS by-laws, the members of the Executive Board have voted among themselves to elect officers for 2012. The officers and the Board of Trustees for the Optometric Historical Society are listed with the years of expiration of their terms on the Board in parenthesis. Their email addresses are also provided.

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The Incunabula of American Optometry

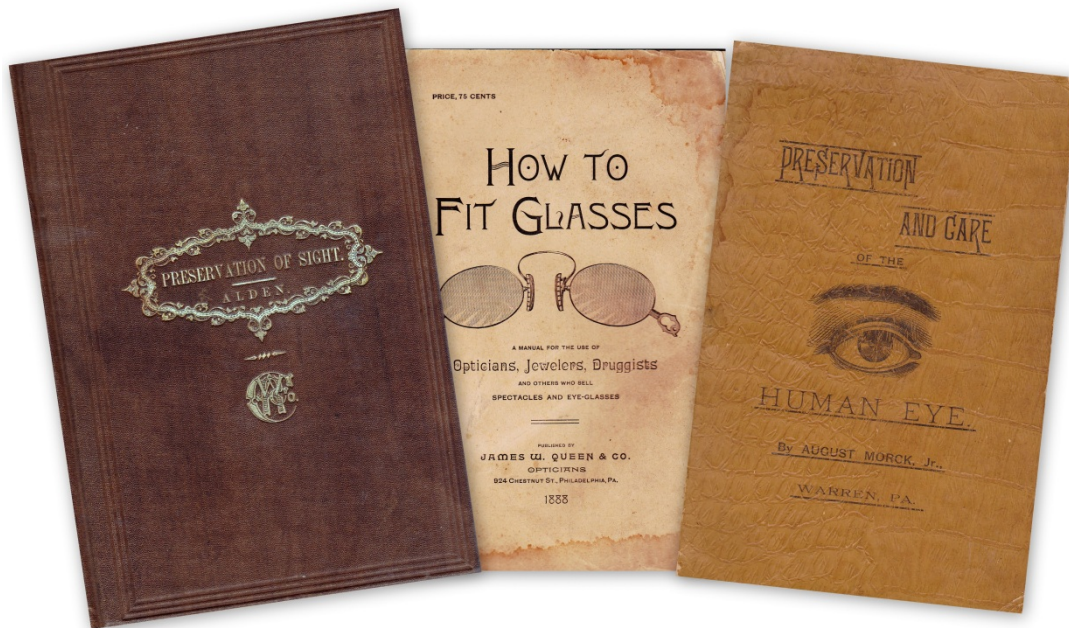
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Abstract

Only a very few American opticians (optometrists) wrote textbooks or manuals before the end of the 19th century. The important hand-book by William Bohne has already been excellently covered by David Goss but three others appear to have been largely unnoticed. These are manuals by Walter Alden, August Morck and J W Queen & Co.: pioneer works that can be regarded as the incunabula or cradle of printing of optometric publishing in the United States.

Key words: *opticians, optometrists, optometric forebears, incunabula.*



Incunabula generally refers to books produced in the infancy of printing. The term derives from a Latin word meaning 'cradle'. Nowadays it can be applied to the earliest printed work in any particular field. I want to write about some of the books belonging to the cradle of American optometric printing and publishing.

David Goss has inspired my interests with his erudite Hindsight articles on the publications of some early English opticians. More recently the early American optometric writing of William Bohne has been extensively reviewed by Goss.¹

In his preface to the first edition of *Hand-book for Opticians*, New Orleans, 1888,² Bohne says

“There is nothing previously published about these subjects, as far as I know; and my little book may be the pioneer to open the road for other more able writers. All other trades have their literature; every other art has a hand-book of the secrets peculiar to its business; but the optical trade, as regards the mechanical part of it, has none whatever.”

It seems that Bohne did not know about several other writers of basic ‘optometric’ manuals. Coincidentally, in the same year of 1888, there were two small manuals also published in the United States on this same subject. The first was by James W. Queen and Co.,⁵ and the second was by Augustus Morck.⁶ A much earlier and more comprehensive book was published by Walter Alden in 1866.⁷ All three of these books were addressed to the profession as well as the general public. Bohne can be said to be the originator of the first American book specifically for opticians. The other authors used their publications to advertise their individual optical firms while simultaneously providing useful information for their colleagues.

Before this time there were, of course, books dealing with optometric material. Many books on optics and ocular physiology had appeared very much earlier but these were written by scientists and medical practitioners. In general our optometric forebears were not highly educated and they were mostly incapable of writing the textbooks needed by our profession. There had been a few significant books written by English and European opticians from as early as the mid-18th century but it seems that nothing similar appeared in America or the rest of the world until very much later. We are fortunate in our Kett Museum and Archive at the Australian College of Optometry to hold copies of three of these rare American books. I propose to review each in turn.

Quite early there appeared the substantial book of about 150 pages by Walter Alden, *The Human Eye, Its Use and Abuse*, Cincinnati, 1866.⁷ The book is self-published by the author who describes himself as an optician on the title page. In his preface Alden says: “This work is presented for the acceptance and approval of the public...” Perusal of just a few pages would indicate that his audience would need to have been an educated one.

The early chapters dealt with the anatomy of the eye and accommodation. A chapter on myopia indicated that the condition is usually hereditary, and that it is more commonly seen in students and professional people, and less frequently in soldiers and sailors. He advised against monacles and recommended spectacles or nose-glasses (pince-nez). Myopes were advised to see an oculist or optician rather than buy glasses from a peddler.

Presbyopia and hypermetropia were given separate chapters and we are reminded that Donders had differentiated the two conditions only two years earlier. Alden also noted the relationship between convergent strabismus and hypermetropia.

Cataract was discussed in detail. The slow onset with age was noted. The author also recognized the occurrence of cataract due to irradiation as experienced by blacksmiths and glassblowers.

There is an interesting chapter on astigmatism. It seems that our 19th century optometrist believed it could all be just too difficult. On page 72, Alden advised “all parties whose vision can not be corrected by the usual concave or convex glasses furnished by the optician, to consult with any oculist of good standing and experience, who will readily determine the character of the glasses to be worn, in order to render vision clear and distinct. And, as the cylindrical glasses are more generally imported from Paetz & Flohr, Berlin, it may require eight or ten weeks after the examination before they can be had.”

Several chapters on spectacles then follow. The differences between the numbering systems for English and Continental lenses were clarified. Pebbles, isochromatic lenses and stenopaic spectacles were discussed. Alden even commented on fashions in spectacles, pointing out that in Eastern states oblong and octagonal shapes were preferred, while in the West and South only oval and pantoscopic styles were wanted. The only bifocals available were the Franklin-style and the French verres a foyer. The latter were essentially one-piece lenses where a basic reading lens was ground in the upper section to provide a weaker distance portion. Neither of these bifocal types was regarded as satisfactory but half-eye glasses, also known as pulpit spectacles, were sometimes found to be useful. Another option was a 4-lens device where side lenses could be swung into place behind the distance spectacle lenses when the reading correction was required. Pince-nez, although sometimes worn by ‘fops’, were seen as convenient as also were lorgnettes. In general, Alden advised that spectacles should only be procured from opticians and that the weakest focus giving perfect vision should always be selected.

It is seen that Alden was primarily addressing his book to the general public but I believe he also intended its use by fellow opticians. He widely quoted from medical and scientific textbooks, especially J. Soelberg Wells Impaired Vision, London, 1862,⁸ and also works by Donders, Helmholtz, von Graefe and others. It is unlikely that the general public of that time would have wanted such detailed information. Furthermore, Alden included an addendum of 12 unnumbered pages, mostly advertising other optical businesses. Whether intended or not, it is seen that his book would have been a very useful manual for the optician fraternity.

At this stage we know very little about Walter Alden. An advertisement at the back of his book⁷ indicates that he was in practice with the long-established Cincinnati optical firm of James Foster, Jr. & Co. At that time (1866) Cincinnati was a very important city, and, in fact the largest inland city in the United States. The James Foster firm would have given Alden good scientific grounding. As well as being opticians the company manufactured and supplied a wide range of mathematical and scientific instruments. In this way Alden was inevitably exposed to the rigours of a more learned and disciplined society.

We do know rather more about James W. Queen. According to one source he was born in 1815 and he was listed as an optician in Philadelphia in 1839.⁹ He had been trained by the famous McAllister optician family. The firm of James W Queen & Co. was established in Philadelphia in the 1850s. In time the company grew to become a very large importer, manufacturer and supplier of all kinds of scientific goods, perhaps the largest in the United States. The ophthalmic department always remained a prime part of the business. The supply of prescription lenses was an essential activity and the firm may have been the first to widely manufacture cylindrical lenses in America.¹⁰ James Queen retired in 1885 but three years later his company published *How to Fit Glasses*. This booklet was subtitled *A Manual for the Use of Opticians, Jewelers, Druggists etc.* The introduction stated that "This manual is offered with the hope that it will enable those who follow its teachings to furnish their patrons with glasses suited to their needs."⁵

The early chapters dealt with ophthalmic lenses and simple refraction techniques by way of test-types and trial-sets. The various refractive errors each were given a chapter with many illustrative cases discussed. The author declared that when frequent changes to spectacles were needed, or when pain or inflammation was apparent, then referral to an oculist was advisable.

Chapter 6 dealt with cylindrical lenses and astigmatism which was still seen as too complex for the ordinary optician. It was recommended that sufferers be sent to an oculist who could be expected to have more time than the busy optician! A tedious trial and error method was described. Edward Jackson had promoted his crossed cylinder technique at about this time but it was apparently unknown to the writer of *How to Fit Glasses*.

Various ways of producing bifocals were described. These included the preferred cement bifocals which I will come to when discussing the work of August Morck.

Chapter 8 is titled *Frames, and How to Fit Them*. There are clear diagrams differentiating spectacles and eyeglasses, and useful illustrations of the various components. There is also practical advice on the centering of lenses and the proper facial fitting of frames.

Pages 88 to 96 of Queen's booklet list various standard outfits for different levels of ophthalmic practice. Druggists and jewelers in a small town may have needed only a modest range of ready-made spectacles. An optician in a city would be advised to have a trial-set, mirror retinoscope, test-types, astigmatic dial and physicians' textbooks on refraction as well as a large stock of spectacles and lenses. An oculist could be supplied with an operating chair, surgical instruments, ophthalmometer, ophthalmoscope, perimeter, and interestingly, a range of frames and lenses.

There are then two pages of distance and near test-types followed by 14 unnumbered pages of illustrated advertisements for optical and other products.

It seems clear that Queen's manual was addressed primarily to opticians. Although Bohne first published his Handbook for Opticians in the same year (1888)² and actually refers to James Queen in the second and third editions, he does not appear to have known of Queen's book.

The third book I wish to discuss is Preservation and Care of the Human Eye by August Morck, Jr.⁶ Coincidentally this also was published in the same year as Bohne's first edition of 1888. By the time of his second edition³ of 1892, Bohne is aware and actually willing to praise Morck's Perfection Bifocals but he does not mention Morck's book. We do not know in which order the 1888 books appeared. One might speculate that Bohne, in his bold preface statement, wanted to take all the glory of being the first American author of an optician's manual. It may be significant that in his third edition⁴ of 1895, Bohne chose not to mention Morck at all.

August Morck Jr. was born in the small town of Warren, Pennsylvania in 1855.¹¹ He was a younger brother of Frederick Morck who had established himself as a jeweler in Warren, in 1870. August joined the business as an optician in 1882, and when the town flourished with a brief oil boom, the business of Morck Bros. undoubtedly also prospered.

Morck's book comprises some 70 pages. It is addressed to opticians and the general public. There are chapters on the anatomy of the eye, refractive errors, rules for fitting glasses, and the care of eyes. Some of author's information is quite unsound and he has many quaint misspellings, e.g., ophthalmic, ophthomoscope, asthemopia, hyperforia and bifocle.

It seems that Morck had limited education but he was probably a good practical optician. His special achievement was his Morck's Patent Perfection. This was the cement bifocal. (The cement was Canada balsam which has a similar refractive index to crown glass) On page 54, he declares '*To all whom it may concern: Be it known, that I, August Morck, Jr., of Warren, in the county of Pennsylvania, have invented a new and useful improvement in Bifocle Lenses for spectacles and Eye Glasses...*' He goes on to describe the various bifocal lenses available at the time. The Franklin split lens was well-known but never widely used. A one-piece bifocal where a basic lens was ground off, top or bottom, in order to give two appropriate powers within the same rim, had the disadvantage of introducing unwanted prism. Morck claimed to have made a very useful advance in introducing the cement bifocal in two different forms. His Patent No.1 consisted of a distance lens from which a small crescent was cut from the lower section and replaced with a stronger reading lens that was cemented, or slotted into a groove, to complete the oval. Morck's Patent No. 2 had the same appearance but was created by cementing a thin wafer of extra power on the front or back of the lower part of the distance lens. (It has been pointed out that cement bifocals were probably invented simultaneously or earlier by other workers. There is a reference to a Samuel Gregg

introducing such a lens as early as 1866. In any event it appears that Morck was granted the patents.)¹² Cement bifocal lenses had the disadvantages of discoloration of the cement and chipping of the adjoining lens sections. However this type of bifocal did survive as a moderately successful construction even long after the introduction of fused bifocals in the early 20th century.

Morck's little book is largely a promotion for his own business but it would also have been most useful to other opticians. In this sense it is almost a textbook.

All three of these manuals appear to be genuinely rare. The copies described are the only examples seen by me on the book market in nearly 50 years of interest in this field. Alden's book is solidly cloth-bound and copies can be found in a few institutional libraries in the United States. The more ephemeral nature of the soft-covered booklets of Queen and Morck would account for their very low survival rate. The WorldCat online catalog lists just one copy of Queen's book and nothing at all for Morck.¹³ There are probably similar titles yet to be rediscovered.

At first glance such books may appear to be inconsequential but for scholars and collectors they can be of great interest. Most importantly they represent some of the very first printed material, the incunabula of our optometric forebears in America.

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1932 Northern Illinois College of Optometry Yearbook

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Indiana optometrist James Pennington recently brought a copy of *The Focus*, the yearbook of the Northern Illinois College of Optometry (NICO), dated June, 1932, to my office. His father was attending NICO at the time of its publication.

Identified as Editor-in-Chief of this 98 page yearbook was John P. Mahn of the Class of June, 1932. The Administration of the school is pictured on page 9: Dr. William B. Needles, President; Prof. Ernest Occhiena, Vice-President; Lida E. Needles, Registrar; Dr. W. Jerome Heather, Clinical Department; and Dr. William H. Bray, Instrumentation Department. Senior faculty are pictured on pages 10 and 11: Dr. W.D. Zoethout, Dr. Thomas G. Atkinson, Dr. C. Stanley McGuire, Dr. Bernard T. Hoffman, Dr. Otis R. Wolfe, Dr. John A. Ross, Dr. Charles H. Dodge, Dr. Miriam A. Walker, Dr. Harold Forbes, Dr. Robert W. Uphoff, Dr. Richard H. Snyder, and Dr. John H. Zeisler.

Students who graduated in 1932 are pictured on pages 15-33. I counted 35 who graduated in January of 1932, and 87 who graduated in June of 1932. The 122 graduates came from 24 states, and there was one student from Canada. About a third of the graduates listed their address as being in Illinois, and 89 of the 122 were from states in the upper Midwest (Illinois, Indiana, Iowa, Michigan, Minnesota, Ohio, and Wisconsin). I counted seven women among the 122 graduates.

Group pictures and lists of “undergraduate” students can be found on pages 37-43. The various classes had designations of Junior Class, Sophomore Class I, Sophomore Class II, Freshman Class I, and Freshman Class II. According to a history of the Illinois College of Optometry and its predecessor institutions,¹ the curriculum at NICO expanded from two years to three years in 1933-34. So the progression from one class to another occurred in less than a year. Elsewhere in the yearbook there is a mention of “the junior semester,” so evidently the Class designations represented the number of semesters they had completed. It is unclear what the I and II designations represented.

Among the students in the Freshman Class I was Irvin M. Borish of New York, NY. Louis I. Borish was in the Sophomore Class I. Louis Borish was Irvin’s uncle, and he persuaded Irvin to go into optometry.² Also in the Sophomore Class I was R.W. Tubesing, of Richmond, Indiana, who would go on to be a president of the Indiana Optometric Association and a president of the American Academy of Optometry. In the June, 1932, graduating class was Loyd M. Wedeking, who also later served as a president of the Indiana Optometric Association. Irvin Borish, R.W. Tubesing, and Loyd Wedeking were among the nine remarkable optometrists on the Indiana Optometric Association’s School Founding Committee which worked to establish the optometry

school at Indiana University.³ James Pennington's father was in the Freshman Class II. Another name that caught my eye was Kenneth H. Oakley, from Toledo, Ohio, who was in the Class of June, 1932. It seems likely that he was the same person as ophthalmologist Kenneth H. Oakley (1902-1999), born in Toledo, Ohio, who published a frequently cited paper on myopia in the *American Journal of Optometry and Physiological Optics*.⁴

The yearbook contains pictures of the NICO basketball team and players. For 1931-32, they had a schedule of 20 games and won 11 of them. NICO also fielded golf, bowling, and tennis teams.

The yearbook featured various organizations, including a sorority, Pi Kappa Rho; and several fraternities, Omega Delta, Omega Epsilon Phi, Phi Theta Upsilon, and Mu Sigma Pi. There were eight members in the sorority. The NICO chapter of the sorority and the chapters of three of the four fraternities were Alpha chapters. According to this yearbook, Omega Epsilon Phi was founded at Columbia University. The yearbook stated that: "The Mu Sigma Pi Fraternity was founded in October 1931 by eight Jewish students of Northern Illinois College, who realized the need of a fraternity to further the interest of Jewish men in Optometry." Other organizations with pictures of members were the Square and Compass Club and the Tomb and Key Honorary Senior Fraternity. According to the constitution of the Square and Compass Club, founded in 1931, its aims and purposes were "to remind its members constantly of the ideals and teachings of Freemasonry; to stimulate a brotherly feeling among the Master Masons attending Northern Illinois College and to create a spirit of closer friendship and brotherhood among its members; and through its influence to help promote high standards in the school." The Northern Illinois College Alumni Association was founded in 1930. The yearbook stated that graduates were urged to join the alumni association before the Chicago World's Fair in 1933 because some activities related to it were being planned.

Pages 72-98 contained various short essays, photographs, jokes, and advertisements. Some excerpts from a page and half passage headed "The Clinic" are as follows:

"The clinical course at Northern Illinois is confined to senior students only. It is designed to perfect and correlate their practical knowledge of the things they have learned in their first three semesters.

"...An adequate number of patients is supplied to each interne, and careful records are kept so that no student may fail to examine the required minimum number of cases.

"The clinical work falls into the three general classifications of refraction, orthoptics and pathology. In the latter division, the student learns that it is not the function of the optometrist to treat diseased conditions, but that it is his function to note and recognize such conditions so that he may refer the patient at once to a competent medical or dental adviser....

"...The degree of Opt.D. as conferred by Northern Illinois College means that the wearer of it is, in all truth, and in the broadest possible sense, a Doctor of Optometry.

“This important department of the College is under the personal direction of Dr. W. Jerome Heather, known nationally as writer, lecturer and educator, and known to each student who comes within the sphere of his dynamic influence as a man of great personal force, magnetic personality and profound convictions. Assisting Dr. Heather is a distinguished staff of associates, including Bernard T. Hoffman, M.D., Otis R. Wolfe, M.D., and Charles H. Dodge, D.D.S., and a competent clinical staff consisting of Drs. John A. Ross, Helen Lazarski, George R. Beilfuss, R.R. King, H.J. Kerker and Harold Laban. Miss Nurnberg is the able nurse in charge of the clinical reception room.” (pages 75-76)

Another essay was headed “Instrument Technique.” It stated that the “department of instrumentation...is sometimes called the Junior Clinic. Its work is organized to prepare junior students for the responsibility of clinical internship which they assume with the beginning of their senior semester. They are familiarized with the construction and use of every known testing mechanism. The work in the booths includes the use of the ophthalmometer, the ophthalmoscope, the phorometer and the retinoscope. Subjective testing, neutralization of lenses, Rx writing and frame fitting are presented in so practical a way that when the junior semester is finished, each student is capable of conducting a complete refractive examination, recognizing his findings and writing an accurate Rx.

“Instruction in the department of instrumentation is in the capable hands of Dr. William H. Bray, assisted by Drs. Forbes, Zeisler, Uphoff, McKelvey and Walker. The course includes lectures on the theory of light and refraction. Dr. Thomas G. Atkinson, Dr. W.D. Zoethout and Dr. C. Stanley McGuire are among the outstanding lecturers whose appearances are appreciated by the junior students. The sure, swift technic of the senior internes is an eloquent tribute to the thoroughness of the training which they received as juniors in the department of instrumentation.” (page 77)

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A Review of Events Leading to the Development of Modern Optometry in the United States

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Development of visual science

Theories of vision began in Greek and Roman periods, paralleled by the Chinese, followed by an Arabic period. Da Vinci described cornea and lens as refractive elements of eye. Little arose in the middle ages, but the Renaissance began movement through the 17th and 18th centuries led by Kepler, Scheiner, Huygens, Newton, Snell, and many others, which began to define modern optics and which culminated in a golden age in the 19th century with the work of Helmholtz, the father of physiologic optics, and Donders, the father of refraction, and in the development of the basic instrumentation of modern eye examination.

History of Spectacles

Origin of spectacles is believed to have begun in the form of reading glasses in the dark ages in about 1285 A.D. The impetus of the art of printing is believed to have influenced acceptance. Roger Bacon described convex lenses for reading in England in 1266. Spectacles appear in paintings dated about 1350s. They are mentioned in early German songs. They were mentioned by Chaucer in 1400s. Concave lenses first appear in paintings in 1500s. The period from about 1285 to 1650 was very productive.

Development of Opticianry

Monks in the Renaissance period are credited with perfecting optical principles, etc., for spectacles. The art of spectacle making dates to about 1285. Charles I of England, in 1629 chartered the Worshipful Company of Spectacle Makers, who developed the first standards, set quality control, and could levy fines. Spectacle makers had also developed in most other countries of Europe by then. Since ophthalmology ignored the use of spectacles for other than presbyopia, opticians became the general source of supply of spectacle corrections, although the method of testing for many years was trial and error, with only spheres.

Benjamin Franklin, who invented the bifocal, befriended John McAllister, whose purchase of a bushel basket of steel and iron spectacle frames is considered the birth of opticianry in America. McAllister made the spectacles for Thomas Jefferson. His son joined him, and they began making gold and silver frames after the war of 1812. The firm, passing through several partnerships and family additions, was the major optical

establishment for many years in the USA, developing the art of lens making. It made the astigmatic lenses forty years before a prescription was written by an oculist. It finally went out of business in 1928. During the latter years of the century, also, many immigrants brought the skills developed in Europe to the American scene, helping establish not only the retail establishments but also major manufacturers, such as Bausch and Lomb.

One of the McAllister's early partners, James Queen, established the largest scientific optical business in America in 1853. His institution was a training ground for many future leaders in the field of Optometry. Although itinerant spectacle peddlers covered much of the outlying country, in concentrated populations, many opticians were associated with jewelry stores because the frames for spectacles were made of gold and silver, and the first articles on lenses and vision appeared in jewelry periodicals. For example, the *Jeweler's Circular Weekly* eventually became the *Review of Optometry*. Articles on optics appeared during the latter years of the 1800 and finally a school of optics was established. As more scientific techniques of refraction were developed, various courses for training opticians in their use promulgated.

Ophthalmology and Refraction

Ophthalmology was the first surgical specialty in the United States recognized through a certifying board. However, Bartisch, in 1575, considered the father of ophthalmology, bitterly opposed the use of spectacles, an opinion which continued within ophthalmology until the very latter years of the nineteenth century. Jaeger in 1855 warned against the mad fashion of wearing glasses, a persistent ophthalmological fixation which carried over into the American colonies and the eventual United States. Despite the call of Von Arlt, who, in his monumental three volume work (1851, 1853, and 1856) urged his colleagues to fit glasses instead of leaving the art to opticians. However, as late as 1880, Shastid, an eminent ophthalmologist, deplores the ignoring of this aspect by ophthalmology.

Thomas Hall Shastid, a prominent ophthalmologist of his time, cites from personal experience the medical thinking of the post-civil-war period as related to spectacle wear. He cites that Ferdinand Van Arlt called upon the medical profession to fit spectacles and eyeglasses themselves, instead of leaving so important a matter to opticians. This advice was disregarded for a very long time. Shastid recalls how uncorrected eyestrain handicapped him in his youth, and how he was without relief until finally fitted with glasses by a jeweler-optician. His own father, a physician, shared the medical sentiment of the 1880s and swore that the glasses would ruin his son's eyes. So strongly was this sentiment promulgated that, even today, many of us in practice still encounter patients who ask if the wearing of glasses will ruin or weaken their eyes.

Sixty to seventy years later, Dr. Shastid, still embittered about medical thinking of the time, expresses his feelings: "The M.D.'s generally would not recognize even the existence of such a thing as eyestrain. For eyestrain headache, they gave morphine, antipyrine, antifebrin, and the like. Sometimes, in this way, they produced drug addictions. If there was any worse quackery than this of the regular medical profession,

I do not know what it was. Yet they called 'quacks' all of us who fitted glasses to the eyes of the young. "

"There were certain traveling 'spec-peddlers' who went from house to house fitting glasses and unskilled though they were, relieving many of the simpler cases of eyestrain headaches, sick stomach and nervous disorders. Such men excited extreme contempt and bitterness on the part of the 'regular' profession, feelings which grew the more the 'spec-peddler' beat the scientific M.D.s at the treatment of eyestrain and its numerous results. Incredible, yet unqualifiedly true."

"Hardly anything that now I can recall served so much to weaken the standing and influence of physicians in any community than this absurd, ridiculous, hard-headed, stubborn, absolutely unyielding opposition to the fitting of glasses for anything whatever, excepting simply and solely for the difficulty known as 'old sight'. Next to the physician who lent his name into the newspapers was he who fitted or caused them to be fitted."

George M. Gould, editor of the journal, *American Medicine*, began to crusade against this indifference in the first decade of the 1900s. He pioneered for the "new" ophthalmology which recognized more than disease and surgery, and opposed strongly the development of non-medical refraction. He noted "poor refraction work on the part of oculists is the greatest cause of skepticism. Those who do accurate refraction know perfectly well that, broadly speaking, the ophthalmologists of the world have done their refraction work badly."

Despite his efforts, he became more accepted as a "hobby-rider" than taken seriously. Ophthalmology into the late eighteen hundreds, not only continued to ignore refractive corrections but to violently oppose them. Ophthalmology's interest was then essentially in disease and surgery and their training had little relationship to that which was cardinal to refractive expertise. Gould was eventually convinced that much as he deplored the rise and growth of optometry, he could not escape the conclusion that nonmedical refraction came about because of the failure of the majority of ophthalmologists to meet public need, nor could he manage to escape the admission that the type of nonmedical refraction available at the time was as good as, if not better than, his own profession was able to provide. Donders himself credited the nonmedical refractionists for their work in correcting hyperopia.

Thus it appears very evident that the field of optometry developed primarily because ophthalmology left a vacuum.

Origin of Professional Optometry in the United States

Just as in the rest of the world, once ophthalmology accepted the value of refraction, it considered refraction a medical procedure, and when the ophthalmologist performed the refraction and wrote a prescription, they had the patient take the prescription to an optician to have the spectacles made. While many non-medical refractionists were operating, a large body of opticians fulfilled the role of spectacle providers. Many may have overlapped somewhat in both fields.

There was little training in optics or refractive procedures in the ophthalmological training program, a potential which is still manifest to this day. A certain number of prescriptions were unsatisfactory, and if a patient returned to the ophthalmologist with a complaint, the ophthalmologist would recheck the prescription (and privately instruct the optician of the new Rx) but would not acknowledge an error to the patient -- instead blaming the optician as having erred in composing the spectacles. Since the optician desired to remain in the good graces of the referring ophthalmologist, the optician accepted the blame and made the new spectacles without charge to either the patient or the referring doctor.

One of the major optical establishments was that of James Prentice, founded in the mid 1880's. James was joined by his son, Charles Prentice. Charles Prentice was unique in that he had five years training in Germany in physics, optics, and engineering, and was possibly the best versed savant in optics in the United States, among either opticianry or ophthalmology. (The Prentice Law for prismatic effect is a basic in optical science). Probably aggravated by the above sequences, Prentice established an optical test lane in his dispensary, and took to refracting the referred patient himself, before making the spectacles. He undoubtedly felt safe in that the ophthalmologist probably did not care as long as the patient was satisfied, and the patient would return to him for replacement of a broken lens, etc. The patient would not be aware since he had no interpretation of what the doctor had ordered the optician to do. Many fellow opticians took to the same process and probably many do so today. So long as nothing aroused the patient there was no protest from ophthalmologists.

However, Prentice decided that he should be paid for his refractive examination. Immediately, the patient recognized that something additional was in process, and undoubtedly resented an additional fee. So long as there were no charges for refractions, there were no objections from ophthalmology, but when a charge for refractions was introduced. Noyes, a leader of ophthalmology, accused Prentice of practicing medicine without a license. Prentice contested this assumption, and was joined by other opticians.

The field of opticianry divided into those who supported his concept and those who preferred remaining in the cooperative status that had previously existed. Several years of interchanged correspondence included other M.D.s, who threatened to have the law changed to exclude opticians from refracting. The New York County Medical Society was also influenced to ban referrals from physicians to Prentice, a number of whom had been referring patients directly to him for refractions. As Prentice learned that an attempt to form a national association of opticians was to take place, he reported his controversy and a number of prominent opticians came to his support. Prentice decided to use the initial meeting of the group, scheduled for September, 1895 to discuss the matter of legislation. Prior to the meeting, Prentice allied with A.J. Cross, who with Prentice, is considered the father of optometry. As the leading dispensing opticians at the meeting decided not to join the movement, it was deferred. Formation of a New York Society of Opticians resulted, whose first meeting was In June, 1896. A

bill was introduced to regulate the practice of refracting opticians. Optometry rebutted ophthalmology's charge of encroaching upon the practice of medicine without a medical license, by the slogan "a lens was not a pill" and specifically banning the use of drugs. However, it took 12 years of effort before New York passed a bill establishing Optometry (1908). The American Optometric Association was founded in 1898 (originally founded as the American Association of Opticians - name changed in 1919).

The mere legalization of itself does not establish a "calling" as a profession in society. A profession is connoted as **a group of individuals pursuing a learned art as a common calling in a spirit of major contribution towards increased welfare of the society which accords the status.** But other attributes besides service influence acceptance as a profession rather than merely a contributing calling. For example, garbage collectors provide a major service to society. Foremost, in addition is the realization that the vocation **commands a broad body of specialized knowledge that is sufficiently defined and delineated** so that it readily and universally can be identified by the public. But even that in itself is not enough. It must **also be accompanied by the implication that the command of that body of knowledge cannot be achieved without a formal program of education at a high level.** Actually, the status of the vocation seems to bear a direct correlation to the length and level of the educational process. However, since optometry was almost uniquely in immediate competition with ophthalmology (which occupied such professional position), it was also incumbent upon optometry that it be recognized as a "learned" profession. Such status requires that the profession earn also the respect of its peer learned professions **by producing a new discovery and knowledge to augment the field - in other words - participate in valid research.**

By the time of the last state's legalization, the educational system in optometry had grown to a number of independent schools in the United States and Canada and three schools associated with universities. The latter had been begun by Prentice and Cross at Columbia (1911) as a two year program, followed shortly by a similar program at Ohio State instigated by Charles Sheard. In 1915, Sheard persuaded Ohio State to expand its course to a four year degree. This set the pace for a similar program at the University of California in Berkeley, and subsequent expansion of the Columbia program. The independent schools, mostly proprietary, maintained the two year programs for some time beyond. Each school was a project in its own right with undefined curricula and standards among them.

Recognizing the immediate need for defining professional status, Irvin M. Borish in 1940 instigated the development of a Council on Education to serve as an accreditation body for the institutions within Optometry. Since no actual standards existed, he and a colleague, Eugene Freeman, then wrote the initial Manual of Accreditation which was immediately adopted by the new Council on Education.

Since little uniformity of programs existed, the next problem was that of establishing a joint cooperation among the schools. Shortly thereafter, Borish and Glenn Fry authored the constitution and by-laws which established the Association of

Schools and Colleges in Optometry. As the years developed, the educational picture changed to eighteen schools in the United States and Canada, of which only the original five are not connected with universities. Of these, seven have become recognized as major research institutions, while others are also developing research programs. The curriculum has increased by one year for every decade until today it is parallel to that of medicine and dentistry, and the Doctor of Optometry degree is uniformly granted by all schools.

As Optometry expanded the scope of care, including more detailed examination of the eye, the need for diagnostic drugs to dilate the pupil became apparent. A meeting to plan Optometry's expansion into the use of pharmaceutical agents convened at LaGuardia airport, led by A. Norman Haffner, President of State University of New York College of Optometry, and Irvin Borish.

The first diagnostic pharmaceutical agent (DPA) law was passed in Rhode Island in 1971. By 1999, all 50 states and the District of Columbia had obtained the right to use DPA's.

In some areas of the United States, optometry represents the primary eyecare available, raising the need for therapeutic treatment of the eye by Optometry. The movement to gain the rights to use therapeutic pharmaceutical agents (TPA's) began with the passing of the first TPA bill in the state of West Virginia in 1976. Optometry in all 50 states and the District of Columbia, now has the right to use a wide range of TPA's to treat red eyes, glaucoma, and a host of other eye conditions.

Today, Optometry in the United States is recognized by government, by insurance agencies, has commissions in all branches of the military, and has broken the drug barrier. Breaking the drug barrier for both diagnostic and therapeutic purposes was necessary for providing the full scope of eye care required by government and insurance agencies.

Although it may appear that securing legislation establishing optometric practice may have been accelerated by the fact that the United States regulates such activity via its separate state governments, it should also be remembered that this additionally required consistent repetition of effort before every one of the 50 state legislatures.

In the United States, among the professions such as medicine and dentistry, the various specialties are controlled and conducted *without any government sanction*.

Members of specialties such as ophthalmology, have, *by their own volitional effort*, formed Academies and Sections of the American Medical Association (an entirely voluntary organization in its own right), which have set standards for practice, defined the scope of the field, and certified members by examination, with a resultant acceptance of appropriate qualifications by the public. Physicians unaccredited as fellows of a given specialty no longer make an attempt to practice such.

Modern optometry writes 66% of eyeglass prescriptions in the United States, and treats a wide range of eye diseases with therapeutic drugs and procedures.

Acknowledgments

This paper was presented at RMPI meeting, Essilor International, Varilux University, Paris, May, 2002. Irvin M. Borish passed away March 3, 2012, at the age of 99 years; his many contributions to optometry are recorded in the book *Borish* by William Baldwin.

George W. Knox and Vincent J. Ellerbrock: Authors of Light, Vision and Lenses

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Abstract

George W. Knox (1911-2010) and Vincent J. Ellerbrock (1918-1965) were optometry graduates, Ph.D. graduates, and optometry faculty members at The Ohio State University. This paper presents biographical sketches of each and describes the textbook they co-authored.

Key words: *optometry books, optometry history, The Ohio State University.*

George Willard Knox (1911-2010)

George Knox graduated in 1933 from Denison University in Granville, Ohio.¹ He held an optometry degree from The Ohio State University, and M.A. and Ph.D. degrees in psychology, also from Ohio State. He received his M.A. in 1936 with a thesis entitled "Some Phases of Gestalt Dynamics Contrasted with some Historical and Contemporary Psychological Standpoints," and his Ph.D. in 1940 with the thesis "The Relation of Dynamic Factors to Flicker and Fusion."² He served in the U.S. Navy Medical Service Corps during World War II and earned the rank of Lieutenant Commander.³

Knox was an optometry professor at The Ohio State University for 15 years. He later practiced both optometry and psychology. At about the age of 80, he retired from optometry practice, but continued to practice psychology.¹ He became the oldest practicing psychologist in the state of Ohio.³

A remarkable fact about Knox was his longevity, living to 99 years of age. After a heart attack at 55, he developed a serious passion for running.^{3,4} He won numerous awards in running and set several age records. He ran a 100 kilometer race at age 70, and continued to compete in races until he was 86 years of age. Late in life he gave talks to senior citizen groups about the value of regular exercise, a healthful diet, and relaxation techniques that he had learned from being a psychologist. In 2003, he received the Denison University Alumni Citation "for his indomitable spirit, his service to country and profession, and his conviction that age is just a footnote to one's life story."¹

Vincent Joseph Ellerbrock (1918-1965)

Vincent Ellerbrock was a native of Ohio and received his B.S. degree in optometry in 1940 from The Ohio State University.⁵ In 1941, he received an M.S. degree from Ohio State, with the thesis topic of "Some Effects Induced by Anisometric Corrections."² Then in the next two years, during World War II, he worked on military research on range finders and did some teaching in the Army

Specialized Training Program in Ohio State's Department of Physics.⁵ In 1944, he took a research position at the Dartmouth Eye Institute in Hanover, New Hampshire, where he worked on aniseikonia and low vision. After two years there, he returned to Ohio State and completed his Ph.D. degree in 1947. The title of his Ph.D. thesis was "An Experimental Investigation of the Fusional Movements of the Eyes."

In 1947, Ellerbrock was appointed Assistant Professor of Physiological Optics at Ohio State. He worked his way up the academic ranks and became a full professor in 1956. Ellerbrock published 45 papers, 26 of them appearing in the *American Journal of Optometry and Archives of the American Academy of Optometry*.^{5,6} In 1954, he compiled, along with a few contributors, a manual of standard operating procedures and information for the Ohio State optometry clinic, *Manual for Optometry Clinics* (175 pages). A review noted that although it described the organization, facilities, forms, and procedures of the Ohio State clinic, it could "be of special value to optometrists serving on the staffs of optometry clinics connected with hospitals, schools, or other special service agencies, and to optometrists participating in school screening surveys."⁷ Ellerbrock also prepared a document entitled *Report on Survey of Optical Aids for Subnormal Vision* (1946, 73 pages) for the Committee on Sensory Aids of the National Research Council, containing information on the theory and application of low vision aids. He was working on books on subnormal vision and the optics of contact lenses when he died.⁵

Ellerbrock was on the Executive Council and the Editorial Council for the American Academy of Optometry. In 1953, Ellerbrock was made chairman of the Academy committee to study the idea of five days of postgraduate courses held immediately before or after the annual meeting of the Academy.⁸ The first postgraduate courses were held at the annual meeting in 1955, and Ellerbrock, as chairman of the Committee on Postgraduate Education, directed the program and courses until his death ten years later.⁹ Ellerbrock died two years before the 1965 Academy postgraduate courses were to begin. Because of his work on the continuing education courses for the Academy, they were named the Ellerbrock courses in his honor.¹⁰

Light, Vision and Lenses

Light, Vision and Lenses: An Introductory Text-book of Geometrical, Physiological and Ophthalmic Optics (350 pages) was published by Knox and Ellerbrock in 1949. A second printing appeared in 1950. The first of three parts covered basic physical and geometrical optics. The topics of Part II, the largest section of the book, were ocular anatomy and pathology, monocular sensory aspects of vision, refractive anomalies, objective and subjective refraction, binocular vision, phorias, fusional vergence ranges, analysis of test findings in writing a prescription, and psychological factors in vision. Part III dealt with mechanical and ophthalmic optics. In the preface, the authors suggested that the book was "introductory" and "elementary" and that it should not be mistaken for one of "the comprehensive treatises which have to be used in the training of Optometrists and Ophthalmologists." (p. v) A review of the book said: "In general, this well written and well illustrated book should find a welcome audience among those beginning the study of clinical optometry and/or ophthalmology

as well as those who wish a composite picture of the various aspects of visual science with which the eye specialist is concerned.”¹¹

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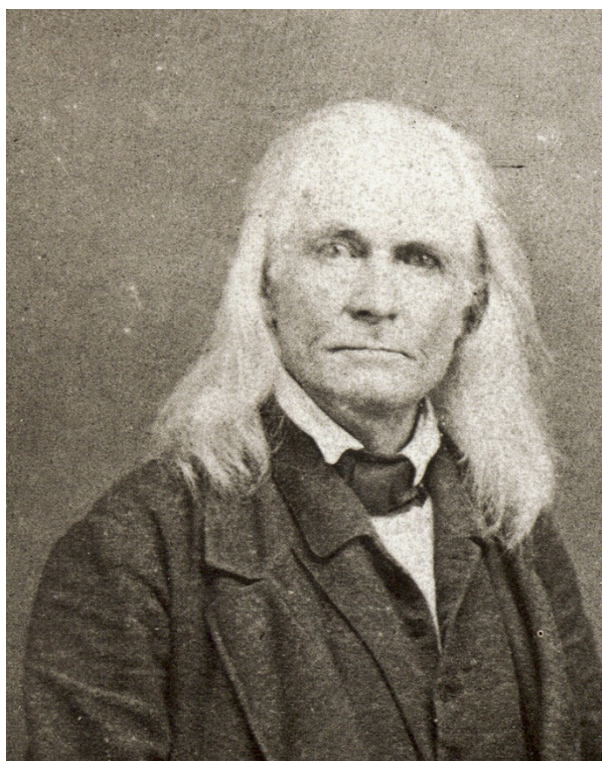
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Addendum to William Cain Ruffin, M.D., and Some History of the Ruffin Family as it Pertains to the American Civil War

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In the previous issue of *Hindsight*, I noted that there seems to be some competition (at least in existing print sources) as to who might have fired the first shot(s) of the American Civil War.¹⁻⁵ There seems to be little doubt as to who fired the first cannon at Fort Sumter. It was Ensign Edmund Ruffin, a forebear of Dr. William Cain Ruffin, with whom I worked in Florida in the 1970s. Because Edmund Ruffin was considered to be the leader of the South Carolina Militia, he was given the opportunity to fire the first cannon at Fort Sumter, that is against the Union Fortifications (e.g., please refer to references 3 and 5; the author here calls special attention to Reference 5, pp. 296 and 297. Page 296 discusses Ensign Edmund Ruffin's (Professor Ruffin's forebear) actions at the time, and his subsequent suicide just after Appomattox; and page 297 is a photograph of the late Edmund Ruffin, i.e., Prof. Ruffin's forebear.) That photograph, which is in the public domain, is reproduced below.



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George H. Giles, English Optometrist, Author, and Administrator

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Abstract

George H. Giles (1904-1965) had enormous influence on optometry in the United Kingdom through his extensive organizational work and writing. This paper contains a brief biographical profile and a description of the books he wrote.

Key words: *optometry books, optometry history, orthoptics, refraction.*

Noted English optometrist George Henry Giles (1904-1965) received his education in optometry at Northampton Institute, where one of his instructors was H.H. Emsley.¹ In 1926, he passed the final examination of the Worshipful Company of Spectacle Makers, and in 1928, he became a Fellow of the British Optical Association. He was prolific writer throughout his career beginning in his student days, publishing more than 100 papers.² In 1933, he received the Institute of Ophthalmic Opticians' Prize for a paper entitled "The standardization of colour tests."²

In 1938, Giles became an elected member of the council of the British Optical Association. Shortly thereafter, he organized English optometrists to test and care for munitions workers as part of the war effort in World War II.³ Giles went on to serve in numerous administrative positions. He was secretary of the British Optical Association from 1942 until his death and secretary of the Association of Optical Practitioners from 1948 until his death. Some of the other positions he held were director of examinations for the British Optical Association, secretary of the Joint Committee of Ophthalmic Opticians, secretary of the Joint Advisory Board of Opticians, member of the Board of Management of the London Refraction Hospital, editor of *The Ophthalmic Optician* and of *The British Journal of Physiological Optics*, and president of the International Optical League.¹⁻³ One writer noted: "It has been said that the Optical world of the United Kingdom revolved around George Giles."³ Another tribute said that Giles had "done more to further the interests of optometry in Great Britain and throughout the continent of Europe than any other one man."⁴

Giles invented various devices for refractive practice. These included the Giles-Archer Colour Perception Unit, the Hunt-Giles Infinity Far Point Test, and a near point rule.² He was also very involved in international optometry. His two longest optometry tours occurred in the 1950s. In 1954, he conducted a 20,000 mile lecture tour of North America in which he visited all twelve optometry schools in the United States and Canada.⁵ In 1955, he made a 52,000 mile optometry tour of India, Australia, New Zealand, and Africa.⁵

After World War II, Giles studied law and qualified as a Barrister, in order to better represent optometry's interests in relations with government agencies.⁴ He was a Fellow of the American Academy of Optometry, Fellow of the Illuminating Engineering Society, Fellow of the Royal Microscopical Society, and a Fellow of the Royal Society of Health.^{1,3} He was awarded the Order of the British Empire by the Queen of England.³ Other awards and recognitions include the Ernest Aves Medal and a memorial plaque at the College of Optometrists Museum in London.⁶ Giles received the Apollo Award posthumously in 1966 from the American Optometric Association.⁷

Books by George H. Giles

Giles' first book was *A Manual of Practical Orthoptics* (1938, 140 pages). The emphasis of the book was the orthoptic treatment of heterophoria and strabismus with various types of stereoscopes and other instruments. For his next book, *The Practice of Orthoptics* (1943, 366 pages), Giles added material on theory and testing procedures and expanded the coverage of treatment. A second edition of *The Practice of Orthoptics* appeared in 1949 (407 pages) with inclusion of more detail on some topics and addition of some new information. A review of the first edition noted that Giles' "techniques generally follow those of Cantonnet, but his presentation of the subject is far more readable than that of the French ophthalmologist."⁸

Giles wrote various monographs which reveal the status of the optometric profession. In *The Ophthalmic Services Under the National Health Services Acts 1946-1952* (1953, 503 pages), he wrote a formal and detailed description of the regulations of ophthalmic services in the United Kingdom. In *American Tour* (1955, 70 pages), he presented a narrative on his tour of the American optometric sites and schools he visited in 1954. The book gives a glimpse into 1950s optometry and its educators. It makes for interesting reading and includes black and white photographs of Giles with various North American optometrists. In *Commonwealth Tour* (1957, 120 pages), Giles described his 1955 several week optometry tour of India, Australia, New Zealand, and Africa.

In 1960, Giles published his widely used book, *The Principles and Practice of Refraction* (688 pages). In the preface he stated that his perception of a need for a book on refraction led him to write a book "which was mainly clinical in its approach, but which at the same time dealt with sufficient of the underlying theory." (p. v) The first of four sections was named The Refractive Error and its Correction, but it was wider in scope than that and it made up more than half of the book. It discussed equipment needs, recording forms, case history and symptoms, external and internal ocular examination, visual acuity, static and dynamic retinoscopy, subjective refraction, accommodation and binocular vision tests, alternative subjective test methods, phoria and fusional vergence range tests and their evaluation, lens prescription writing, prescription of prisms, tinted lenses, and low vision. Section II, Supplementary Examination, had three chapters on visual fields and perimetry and a chapter on color vision. Section III, Orthoptic Investigation and Treatment, covered testing and treatment of phoria cases and strabismus, and various instruments used in orthoptics were

explained. Section IV, Special Aspects of Ophthalmic Optics, contained five chapters, each by a contributing author, on ocular drugs, instruments for objective ocular examination, contact lenses, aniseikonia, and dispensing. Giles mentioned in the preface that the third and fourth sections were introductory only.

In the second edition of his refraction book (1965), Giles added a sub-title so that the title became *The Principles and Practice of Refraction and its Allied Subjects*. The format and organization of the book remained the same, but Giles took “the opportunity to revise and extend where necessary and to include a few new developments or instruments that have since appeared.” (p. vii) A review of the second edition stated that “although the instruments illustrated by Giles, being of British manufacture, will often seem strange to American optometrists, this book will be a valued addition to our bookshelves. Giles writes well and is obviously a sensible and competent clinician.”⁹

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Book Review: Centennial Issue of the North Carolina State Optometric Society

Centennial Issue of the North Carolina State Optometric Society. Compiled by Sue Gardner. Wilson, NC: North Carolina State Optometric Society, 2009. v + 108 pages. Hardcover.

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In this book, the Executive Director of the North Carolina State Optometric Society has compiled historical narratives, timelines, photographs, letters, lists of award winners and society presidents, and reprints of articles to commemorate the one hundredth anniversary of the founding of the society. The book was dedicated to John D. Costabile, O.D., (1926-1989), who served as Secretary-Treasurer/Executive Secretary of the NCSOS from 1952 to 1989.

In 1908, eighteen opticians, as optometrists were then commonly known, met in Raleigh, North Carolina to form the society, and the first annual meeting of the North Carolina Optical Society was held in January of 1909. The North Carolina optometry licensure law was passed in March of 1909, and North Carolina became the sixteenth state to have an optometry licensure law. The first certificates of registration were dated June 8, 1909. The records of the society first referred to the members as "Dr." instead of "Mr." in 1911. The society became the North Carolina Optometric Society in 1912. In 1912, there were 153 optometrists registered with the state board.

The Women's Auxiliary to the NCSOS was founded in 1936. It had many years of active work until declining membership led to its disbanding in 1996. The first female president of NCSOS was Dr. Rebecca H. Wartman who took office in 2001.

As with any state association, there was much work relating to legislative matters. The book contains a nine page legislative timeline from 1971 to 2009 and copies of a few letters and documents relating to legislative and government matters.

The first of three reprinted articles is a one page article from the North Carolina Optometrist profiling Dr. P.N. DeVere. DeVere served as president of NCSOS in 1950-51 and was elected president of the American Optometric Association in 1959. The second reprinted article was taken from pages 40-44 in the June, 1989 issue of *Review of Optometry*. The title of the article was "The Battle of North Carolina," and it discussed how the North Carolina optometrists were able to pass and maintain one of the first optometric therapeutic pharmaceutical laws. It also noted that the state association had a 96% membership rate. The work of several North Carolina optometrists, John Costabile in particular, was highlighted.

The last of the reprinted articles is a fascinating article entitled "Recollections of 60 years of the history of optometry" taken from the *Journal of the American Optometric Association* (May, 1989, volume 60, number 5, pages 391-404). It was written by former North Carolina optometrist Gideon L. Lang, Jr. Lang's father started optometry practice in North Carolina in 1909, and Lang entered Pennsylvania College of Optometry in 1937. In this article, he presents detailed recollections of his years practicing optometry and advocating for the profession, including comments on military optometry, government relations, and industrial optometry, among other topics. Although written in a humble manner, it is clear that Lang achieved much for the advancement of the optometric profession.

The book contains numerous black and white photographs, including photos of society presidents. This book is a good place to start for anyone wanting to find out more about the history of North Carolina optometry.

With so many state optometric associations being founded in the early years of the twentieth century, there are many that would have celebrated 100 years of existence in recent years. The Oklahoma state association also produced a book celebrating their one hundredth anniversary (reviewed in *Hindsight*, 2010;41:60-61). I would be interested in hearing from readers who are aware of other state associations who produced books celebrating their centennials.