NEWSLETTER
OF THE
OPTOMETRIC HISTORICAL SOCIETY
(243 North Lindbergh Boulevard, St. Louis, Missouri 63141, U.S.A.)

Vol. 14 April 1983 Number 2

A widely dispersed membership:

In the early years of the O.H.S. we occasionally published a list of the names and addresses of all of our members. Recently we considered doing it again, but when I received the long list of 213 members as of February 16, 1983, it occurred to me that the several added pages to a single issue would increase the postage significantly and probably be of negligible interest to all except a half dozen or fewer readers. Further, I am aware that there are some who do not wish their names and addresses to be on a widely distributed list that may lend itself to exploitation. Therefore, I propose not to include the list as a part of a newsletter and to suggest that any member desiring the list for a legitimate and scholarly or friendly purpose may request it directly from the Secretary-Treasurer free of charge.

What may be of interest to many, however, is a kind of statistical summary. For example, of the 213 members, almost 10% are not optometrists, consisting of librarians, opticians, historians, optometrists' widows, and students, and perhaps others whose professional ties are not readily identifiable. 79% of the members are residents of the U.S.A. Another 4% are residents of Canada, 3% of Australia, 3% of England, and the remaining 11% of the Republic of South Africa, New Zealand, India, Italy, Sweden, Switzerland, Hong Kong, the Philippines, France, Ireland, Israel, Japan, Poland, the Netherlands, and East Germany.

Within the U.S.A. the state of California has 25 members; Indiana, New York, and Ohio each has 13 members; Pennsylvania 12; Missouri 9; Illinois 7; Florida, Massachusetts, Tennessee, Texas, and Puerto Rico each 6; New Jersey 5; Maryland, Minnesota, Oklahoma, and Virginia each 4; Arizona and Michigan each 3; Colorado, Georgia, Hawaii, North Carolina, South Carolina, and Washington each 2; and Alabama, Connecticut, Delaware, Iowa, Kansas, Mississippi, Nebraska, New Hampshire, South Dakota, Wisconsin, and the District of Columbia each one. This leaves 16 American states completely deprived of the benefits of O.H.S. membership.

The eight Canadian members are scattered in four of the nine provinces, and the seven Australian members in five of Australia's six states.

Any member who has a personal friend in one of the OHS-deprived states, provinces, or countries may well do him

or her a favor by offering a year's membership, and of course this would further enhance our optometric history-gathering efforts.

Gifts and dues:

First the good news. Donations received mostly as supplements to our extremely modest annual dues included $45.00 from Charles R. Stewart, O.D., Ph.D.; $20.00 from Irving Bennett, O.D., $10.00 from D.K. Penisten, O.D., and $5.00 from Sterrett Titus, O.D. retired. Also, three persons were given memberships as Christmas gifts.

Now the bad news. As of the 16th of February seventy three of our 1982 members had not yet paid their 1983 dues. This represents $365.00, the equivalent of approximately 40% of our Newsletter publishing and mailing costs for the year.

Even in the circumstances of the times I venture the guess that by the time this issue is delivered the great majority of the 73 will have paid, but if not, let this be a reminder to the procrastinators to send the $5.00 in before they finish reading this, or immediately after.

Ocular refractive indices!

As early as 1606 Thomas Harriott (1560-1621) used hollow glass prisms which he filled with various liquids, none of the ocular media, to determine their refractive indices. About a century later, in 1709 and 1710, Francis Hauksbee, the Elder (ca. 1666-1713), reported experiments of similar design resulting in what, according to John R. Levene, appears to have been the first attempt to estimate the refractive index of ocular media, in this instance the vitreous and crystalline humors of the ox eye.

The next refractive index measurements for ocular media may not have been until very early in the 19th century by William Wollaston (1766-1829). Others who contributed historically, directly or indirectly, experimentally or theoretically, to our awareness of the refractive properties of the several ocular media include Leonhard Euler (1707-1783) and his son Johann Albrecht Euler (1734-1800), Jean Francois Gabriel de Chossat de Saint Sulpice, usually abbreviated J.F.G. Chossat, (1755-1841), Thomas Young (1773-1829), Sir David Brewster (1781-1868), L. Matthiessen (1830-1906), and Marius Tscherning (1854-1939).

The roles of the above-named are reviewed by John R. Levene in volume 2 of Historia Ophthalmologica Internationalis, 1982, pages 263-272 under the caption of FOUNDATIONS OF MODERN OCULAR VEGETATIVE PHYSIOLOGY, 1. REFRACTIVE INDEX OF THE OCULAR MEDIA, from which these notes are derived.

50 years of Optic Gumpelmayer:

On June 11, 1932, after full qualification and several years experience with other Augenoptiker, Theodor Gumpelmayer opened offices for the practice of optics and optometry in Linz, Austria. Fifty years of growth and service were celebrated in 1982 with a handsome 50-page 21 x 21 cm booklet entitled "Die Chronik des 'Optikers in Vereinshaus'." (Chronicle of the optician in society).

Though obviously a promotional public-relations document, it serves as an historical account with numerous illustrations, including Mr. Gumpelmayer's February 4, 1926, certificate of qualification, newspaper clippings, working facilities, staff, official correspondence, street scenes, and the like. Included are biographical notes on Theodor Gumpelmayer senior, and on his son and successor Dr. Theo F. Gumpelmayer, who also has an impressive career of numerous major accomplishments.

A curdling thought:

Miss M.M. Uushona, our African optometrist friend in Otjiwarongo, has come across another interesting home cure among the Owambus of that part of Namibia, South-West Africa. For treatment of a traumatized eye goat milk may be instilled a few drops at a time. She has no opinions as to its effectiveness, but it undoubtedly has a history in local folklore.

Book review:

> Mitchell, Margaret, "History of the British Optical Association," 1895-1978, published by The British Optical Association and The British Optical Association Foundation, 10 Knaresborough Place, London SW5 OTG, 1982, 314 pp., 76 illustrations, 15 x 22 cm, £7.50 (ca. $11.60)

The title could well have been "Inside the B.O.A." The author has been a career-long bibliothecal, academic, editorial, and administrative staff member of the British Optical Association. She presents her well documented and somewhat intimate, often glowing, interpretation of the B.O.A. as a corporate, humanitarian, intellectual, and political embodiment of a profession during its thorny emergence from a medieval craft in today's century. The 24 chapters deal with the early evolution of ophthalmic optics, the organizational and circumstantial events around and shortly following the turn of the century, the separately chronological accounts of progress in legislation, certification, education, research, conduct codes, discipline, inter-society liaison, organization management, the successive B.O.A. headquarters, the Library, the Museum, journals, books. secretaryships, staff, involvement of contemporary personalities, local societies,

international affairs, and the Benevalent Fund. The final chapter describes the campaign to merge the functions of the B.O.A., the 350 year old Worshipful Company of Spectacle Makers, and the Scottish Association of Opticians into the now established British College of Ophthalmic Opticians (Optometrists).

Discussed in the test are allegations of antiquated restrictions and regulations on the part of the Worshipful Company of Spectacle Makers due to an apathy more pointedly labeled "supineness"; the tribulations of adoption of "ophthalmic optician" as an identifying title, and its definition; the variously occurring forms of medical opposition which may be summarily described as resistance to any attempt to improve the status or capability of the ophthalmic optician (optometrist); the adoption and development of qualifying examinations for certification, initially as "Optic Grade" (optical science), "Dioptric Grade" (ophthalmic science), and "Ophthalmometric Grade" (clinical science), and later the inclusion of Diplomates in orthoptics, contact lenses, and optometric use of drugs; the awareness that an estimated 20,000 people in Great Britain in about 1903 were calling themselves opticians when only 600 held certificates of qualification; the 1910 Markham v. Thomas court case which for the first time in the history of optometry placed a legal responsibility on the optometrist to refer a patient recognized to be in need of medical attention; the introduction of ophthalmic optical curricula in polytechnical institutes, which many years later became universities; the 1922 founding of the London Refraction Hospital upon the urging of an ophthalmologist that such a hospital be established to be staffed by opticians; the invasion by itinerant opticians with "slick advertising" after World War I, one being a Maurice Bloom, an American auctioneer of jewelry who eventually opened 40 spectacle-vending establishments; and numerous other incidents which now may seem purely anecdotal but which were crucial issues of the moment.

Not without a subtle message is Ms. Mitchell's quoting of J.H. Sutcliffe as saying, "The true art of examination is rather to extract what knowledge a candidate may have than to seek to confuse him by 'catch' questions." She also cites an initial B.O.A. regulation stating that women should be eligible for membership but not for any office. She then reports that the first women to pass a qualifying B.O.A. examination responded to the question, "Do spectacles make one look uglier?" with "Are people usually ugly looking in the first place?" With only repeated and admiring high praise for the 40 years Secretary Mr. J.H. Sutcliffe she mentions quite casually that his staff was female, "all clad in highly-starched mauve overalls [smocks] which were singularly unattractive, but that possibly was the purpose."

What has been puzzling to many of us is the apparent plethora of rival societies with superficially parallel objectives that plagued Britain's optometric development until recent years. The principal reason becomes quite apparent in this book. Long without legislated registration, "20,000" self-styled opticians could not agree on standards for their own voluntary certification and quite defensively adhered to whatever organization seemed best to fit their qualifying circumstances.

Of special interest to readers of this Newsletter are the chapters on the magnificent B.O.A. Library, which had its beginning with only seven books in 1901, and the outstanding Sutcliffe Museum, which had its first display in 1926. Both retain their B.O.A. identity and continue to serve their patrons at the new location of 10 Knaresborough Place, London SW5 0TG, England.

Quite disappointing is the physical quality and material composition of the book itself, actually a bit cheap looking. The inexcusable lack of a much needed index, the careless omission of page indications for the chapters listed in the table of contents, the absence of an imprinted publication or copyright date, and the excessive use of unfamiliar abbreviations all suggest a gross lack of editorial surveillance by the publisher. The text, however, is very well written, especially commendable for an author whose career had completely skirted the writing of history. It is a contribution to history that could well be emulated by a hundred other optometric organizations which now have survived the better part of a century and for which archival material may still abound.

Intraocular lens history:

The first chapter of "Intraocular Lenses," a book by Edwin Olmos, F. Hampton Roy, and Daljit Singh, Editor, Praeger Publishers, New York, 1981, is devoted entirely to the history of intraocular lenses from the mentioning of the idea in Cassanova's memoirs in the eighteenth century to the Interim Report of the U.S. Food and Drug Administration in 1979. The details are well referenced in the book's 615 item bibliography.

A lady O.D. in 1916:

A set of "dittoed" handout sheets, 117 typewritten pages, from an ocular anatomy course taught at the Rochester School of Optometry in or before 1916 was recently contributed to ILAMO by Elizabeth Parker Ruth of Melbourne, Florida, daughter of Helen Zimmerman Parker, O.D., a 1916 graduate of the Rochester school. Helen was the daughter of George Zimmerman, an optometrist and registered pharmacist in the city of Rochester, New York, and practiced optometry in her father's pharmacy until her marriage to Henry H. Parker.

Much of her practice included the optometric care of deaf children, as she learned to communicate with them in sign language.

The anatomy text is startingly detailed, due, apparently to lack of good diagrams and photographs. A sample paragraph lifted at random from the text illustrates the monotone:

"The ciliary body is richly supplied with nerves from the long and short ciliary nerves and bloodvessels, principally the extensions from the long ciliary arteries. On account of the extremely important vascular condition at this point, the region directly external to it on the sclera is known as the danger zone because any affection or injury to this structure is marked by extreme tenderness in this region of the eye. The danger zone extends one quarter of one inch back from the limbus or sclero-corneal junction."

Helen was born July 11, 1895 in Chicago, Illinois, and died February 21, 1982 in Melbourne, Florida. She had a pair of soft contact lenses made for herself at the age of 82.

Michael Faraday (1791-1867):

Coiner of such terms as anode, cathode, diamagnetic, dielectric, and electrolysis, and honored by the term farad, "Faraday had an abiding interest in optics. For nearly 30 years he was the official scientific advisor on lighthouses. In 1831 he discussed the illusions of movement and showed how pictures of successive phases of motion could give the impression of continuous movement, . . . observations that inspired the much later inventions of the cinema and stroboscope."

So reported James E. Lebensohn, editor of the section on "Classics of Ophthalmology" in the December 1958 issue of Survey of Ophthalmology, vol. 3, no. 6, pp. 563-567, a copy of which was thoughtfully sent to me by William Lyle, Editor of the American Journal of Optometry and Physiological Optics with the note, "no doubt old stuff to you," which it was not.

"Faraday was born near London and had but meager schooling. When 22 years old he left his employment as bookbinder, at which he had worked since the age of 10, to become the assistant to Sir Humphry Davy at the Royal Institution. After an experiment on the liquification of chlorine, 13 glass fragments were removed from his eye," reports Lebensohn. He adds, "Clerk Maxwell credited Faraday with the first conception of the electromagnetic theory of light."

Reprinted in the same Classics section is a complete article by Faraday entitled "ON THE MANUFACTURE OF GLASS FOR OPTICAL PURPOSES" from the 1830 Philosophical Transactions of the Royal Society of London, Vol. 120, pp. 1-57. Said Faraday by way of introduction, "Perfect as is the manufacture of glass for all ordinary purposes . . . there is scarcely any artificial substance in which it is so difficult to unite what is required to satisfy the wants of science." ". . . these difficulties have induced some persons to labor hard and earnestly for years together. . ." "Guinand was one of these: and died engaged in it in the year 1823. Fraunhofer labored hard until science was deprived of him also by death."

In his article Faraday reported the scientific and technological advances accomplished in the "room and furnaces . . . built at the Royal Institution in September 1827," beginning with inquiries into the properties of flint and crown glass and following through with "the preparation and perfection of peculiar heavy and fusible glasses".

Lebensohn comments that although Faraday's newly produced types of glass were a laboratory success and represented pioneer work of directive influence on all subsequent investigations, it remained for Ernst Abbe, Otto Schott, and others to implement the subsequent technology essential to their commercial development.

On page 562, facing the Classics article, is a full length portrait of Faraday in what appears to be a lecturing stance in quite dressy attire. He is reported to have had an exceptional gift of popularizing science. Comments Lebensohn, "Charles Dickens, then editor of Household Words asked for an account of his lectures on the breakfast table and of those addressed to children."

The IES Gold Medal:

Established in 1943 and first awarded in 1944, this highly coveted honor of the Illuminating Engineering Society of North America has been awarded every subsequent year except in 1951, 1953, and 1978. ". . . to be awarded from time to time as merited, but not more often than once a year," its purpose is to "afford the Society an opportunity to give appropriate recognition to meritorious achievement which has conspicuously furthered the profession, art, or knowledge of illuminating engineering." Candidates need not be members of the Society. The nominee's achievement may "be in the field of engineering design, applied illumination, optics, ophthalmology, lighting research, education, or administration and management."

Inching our way to the diopter:

Recently, in his ever diligent search for published papers on myopia, Professor David Goss, O.D., Ph.D., of Northeastern State University, Tahlequah, Oklahoma, encountered such refractive designations as "+ 1/5 c., axis at 90°" and "-1/30 c., axis 170°." These were represented as amounts of astigmatism by S.D. Risley, M.D., of Philadelphia in a patient examined in 1877. He reported this in an article entitled, "Hypermetropic Refraction, passing while under Observation into Myopia," in Transactions of the American Ophthalmological Society, Vol. 4, 1885, pages 102-106. In the same article Risley reported on two additional patients whom he had examined in 1881, specifying their refractive errors as "+ 1 D. c., axis 180°," "+.50 s.$\bigcirc$ -1.25 c., axis vert.," etc. (with one specification being "O.D. -1 D. c., axis 180$\bigcirc$+1. D. c. axis 90°"!

In the same volume number, but dated 1886, in an article entitled, "Some Remarks on Asthenopia and Changes in Refraction" by William F. Norris, M.D., also of Philadelphia, pages 369-384, Dr. Goss found grades of hypermetropia identified by such fractions as 1/4.5, 1/6, 1/8, etc. on up to 1/72, 1/136, and 1/144. In the printed discussion following Dr. Norris's paper a Dr. Harlan spoke of refractive errors of power "+1.5 D. cylinder," "1. D. spherical," and similar metric values.

Dr. Goss also noted that in the two prior volumes, 2 and 3, of the same Transactions for 1879 and 1883 there were two articles by Hasket Derby, M.D., of Boston, in which all refractive designations were in "dioptrics" in quarter-diopter steps. In the earlier of the two articles (pp. 530-536) however, Dr. Derby pointed out that, "It is only since 1876 that metric glasses have been used . . ." In the same paragraph he accommodated the less progressive reader momentarily by the statement and a parenthetical inclusion, ". . . some investigators have not reckoned in a myopia of less than one dioptric (-1/36)." In the printed discussion following Dr. Derby's later paper a Dr. Gruening comments, "We now have three different terms by which measurements are designated, dioptric, dioptrie, and dioptre."

The explanation of the earlier fractional designations may be found in E. Landolt's "The Refraction and Accommodation of the Eye" translated by C.M. Culver, Edinburgh, 1886, pages 68-78. Therein is described "The Old System of Numbering Spectacle Glasses" in which it is presumed that ophthalmic lenses are symmetrically bispherical (or bitoric or bicyclindrical), that the index of refraction of glass is approximately 1.5, and that therefore the focal length of the lens is equal to the radius of curvature of either surface or of the tool on which the surfaces were ground. Why the refractive specifications were often recorded in their reciprocal form as fractions is not explained though the arithmetical additivity of the resultant power values may have been a factor. Perhaps, too, the reciprocal fraction may have been employed during this era of transition and confusion to differentiate more conspicuously the old and new numbering systems.

The expression of the radius of curvature and therefore the approximated focal length in inches provided another source of error, for, according to Landolt, there were 30 or more different inch lengths. He reported, for examples, the English inch as 25.4, the Prussian 26.15, the Austrian 26.34, and the Paris inch as 27.07 mm. To resolve this error he provided two tables, one showing the 32 numbered lens strengths or radii of the old system ranging from 2 to 72, their computed focal lengths in English inches for an index of 1.53, and their millimeter and "dioptry" focal equivalents, the other table doing the same for Paris inches.

A further complication that Landolt did not mention in his otherwise very comprehensive discussion is the reasonable certainty that refractionists in America and England were using English inches for routine distance measurements while the radii of curvature of the optical surfacing tools, according to Prentice (p. 7407, American Encyclopedia of Ophthalmology, 1907), were measured in Paris inches!

According to Charles N. McCormick, author of the book "Practical Optics for Beginners," Chicago, 1895, ". . . at an international congress of ophthalmologists some years ago a uniform standard of measurement and numbering was agreed upon. The standard is one metre . . . As a name for the unit of measurement, the word Dioptre was chosen. . ."

Conversion to the metric-dioptric system was plagued not only by the variety of inches but also by the nomenclature of the new unit, which we now call diopter or dioptre. Previously mentioned here are also the dioptric, the dioptrie, and the dioptry, not to mention, according to Landolt, page 71, that Nagel gave it the name of "Meterlinse" (metre-lens).

So, what Dr. Goss has not been able to resolve is whether Dr. Risley's astigmatism value of 1/15 is the equivalent of 2.79 D. or 2.61 D., fortunately a negligible difference for his purposes. More fascinating is the question of whether the lens fabricating opticians discarded or recut their inch-designated surfacing tools to correspond to the quarter and eighth diopter steps or merely redesignated their curvatures to the nearest usable dioptric values. Similarly, were the lenses in the inch-designated trial cases replaced or merely renumbered to the nearest usable dioptric strengths? The reader who owns a dioptrically designated trial case dating back to the last quarter of the 19th century might well answer this question by measuring the dioptric powers of a dozen or more of the lenses.

Lend me your eye:

In a folk tale collected by Peter Christen Asbjornsen early in the 19th century in the Gudbrandsdal district of south central Norway we learn of the removable eye shared by several trolls, those supernatural beings that inhabit the backwoods regions of Scandinavia. Initially published in 1845 by Asbjornsen and his co-author Jorgen Moe as one of a collection of Norwegian Folk Tales, and later illustrated by Erik Werenskiold to give us our present visual concept of the looks of a troll, the tale appeared in English in 1960 in Norwegian Folk Tales translated by Pat Shaw and Carl Norman, Dreyers Forlag, Oslo.

Entitled, "The Boys Who Met the Trolls in the Hedal Woods," the tale is about some adventures of two "half-grown" sons of a poor farm couple in Vågå who got lost in a forest in one of their frequent wanderings about the countryside. Shortly after lying down to sleep they heard the approach of three trolls who had smelled "the smell of Christian blood."

The story continues:

Just then they saw the Trolls come rushing, and they were so big and tall that their heads were level with the tops of the fir trees. But they had only one eye among the three of them, and they took turns using it. Each had a hole in his forehead to put it in, and guided it with his hands. The one who went ahead had to have it, and the others went behind him and held onto him.

"Take to your heels!" said the elder of the boys. "But don't run too far before you see how it goes. Since they have the eye so high up, it'll be hard for them to see me when I come behind them."

Well, the brother ran ahead, with the Trolls at his heels. In the meantime, the elder brother went behind them and chopped the hindmost Troll in the ankle, so that he let out a horrible shriek. Then the first Troll became so frightened that he jumped, and dropped the eye, and the boy wasn't slow in grabbing it up. It was bigger than two pot lids put together, and it was so clear, that even though it was pitch black, the night became as light as day when he looked through it.

When the Trolls discovered that he had taken the eye from them, and that he had wounded one of them, they started threatening him with all the evil there was, if he didn't give them back the eye that very minute.

"I'm not afraid of Trolls or threats," said the boy. "Now I have three eyes to myself, and you don't have any. And still two of you have to carry the third."

"If we don't get our eye back this very minute, you'll be turned into sticks and stones!" shrieked the Trolls.

But the boy felt there wasn't any hurry; he was afraid of neither boasting nor magic, he said. If they didn't leave him alone, he would chop at all three of them so they would have to crawl along the hill like creeping, crawling worms.

When the Trolls heard this, they became frightened and started to sing another tune. They pleaded quite nicely that, if he gave them back the eye, he would get both gold and silver and everything he wanted. Well, the boy thought that was all very fine, but he wanted the gold and silver first. So he said that if one of them would go home and fetch so much gold and silver that he and his brother could fill their bags, and give him and his brother two good steel bows besides, they should get the eye. But until then he would keep it.

The Trolls carried on and said that none of them could walk as long as he didn't have an eye to see with. But then one of them started yelling for the old woman, for they had one old woman among the three of them. After a while there was an answer in a mountain far to the north. So the Trolls said that she was to come with two steel bows, and two pails full of gold and silver, and it wasn't long before she was there. When she saw what had happened, she started threatening with magic. But the Trolls became still more frightened and bade her be careful of that little wasp. She couldn't be certain that he wouldn't take her eye, too. So she flung the buckets, and the gold and the silver, and the bows at them, and strode home to the mountains with the Trolls. And since then, no one has ever heard that the Trolls have been about in the Hedal Woods sniffing after Christian blood.

Indubitably veracious:

In the Christmas issue of The Optician, December 10, 1982, Vol. 184, No. 4770, pages 16-18, OHS member Colin B. Fryer entertains the reader with several anecdotal eye-related tales of yore. They include a description of a millenia-old temple in Mesopotamia in which a goddess was emblematically represented by a pair of staring eyes in copper repoussé; a Chinese scholar of the Ming Dynasty (1368-1644 A.D.) who was described by contemporary chroniclers as having transparent flesh so that his skull, skeleton, and the internal organs of his body were clearly visible; a blinded knight named Rolf in York, England, ca. 1226, who, following weeks of prayer, found himself one day with a new pair of eyes, slightly smaller and of different color but sound enough to provide good vision for the rest of his life; the courtiers of Philip II of Spain (1527-98), who wore big, thick-rimmed spectacles, often unglazed, for "effection, prestige, and to indicate their noble rank," with the fad continuing within the nobility into the early years of the 18th-century in Spain, though considered quite objectionable in some other countries; the Tyrolean villager who came upon a tiny glass-contained flea of a deceased naturalist which he saw through the lens of a simple microscope in the naturalist's laboratory and took it for "The Devil"; a Turkish Governor who was baffled by the camera obscura which traveller Edward Dodwell used to sketch the Acropolis buildings at Athens, Greece, in 1805; and the Hindu juggler who, before India's independence, demonstrated to an English army officer his ability to lift a basket containing a python by means of a thin rope attached to two hollow leaden cups placed over his eyes and retained by suction.

Though Mr. Fryer did not cite his sources of information we can presume that he has done so in his book manuscript in preparation.

The obvious historical significance of such anecdotes pertains not to the descriptions themselves, which must have very restricted validity, but to the fact that the accounts were once recorded and then survived the ravishes of time. Like beliefs, faiths, jokes, cartoons, laws, styles, games, and fads they reflect the states of mind both of the people who gave rise to the tales and of those who preserved them. In this issue we pass them on with a touch of our own interpretation.

Do you have a spare set of Helmholtz?

Professor Gordon E. Legge, Ph.D., of the University of Minnesota, Department of Psychology, 75 East River Road, Minneapolis, Minnesota 55455 writes ILAMO as follows:

"For some time, I have been seeking a copy of Helmholtz' Treatise on Physiological Optics translated from the third German Edition by James P.C. Southall. This book was published in 1925 by the Optical Society of America as a three volume set. I managed to buy Vol. 1 from a retiring optometrist. The book was republished by Dover in 1962 as a two volume set. I would like to find either volumes two and three from the OSA edition, or the entire Dover set. I believe that Petersmith Publishers now own the rights and may someday reprint the book, but I have no idea when. Because the treatise is such a classic, I would very much like to have a copy, both for historical and for research purposes. I would appreciate any information you may have."

A New Year's Eve document:

Herman Sager, O.D., kindly sent O.H.S. President Leeds a copy of the New York Academy of Optometry certificate of incorporation which was approved on the 31st day of December, 1912, by Alfred R. Page, Justice of the Supreme Court of the State of New York, and filed and recorded in the State of New York Office of the Secretary of State on January 6, 1913, in the city of Albany, N.Y.

The certificate states the object and purpose of the academy "to encourage optometric research and to promulgate by every means available information bearing on the conservation of vision, but it is not intended that the proposed corporations shall have the power to conduct a school or to give instruction relative to the profession or science of optometry."

The five undersigning applicants were Robert Minturn Lockwood, Elmer LeRoy Ryer, Elmer Edward Hotaling, James Haile Drakeford, and Nelson Young Hull.

Attached was a copy of a notarized statement of December 30, 1912, of the attorney who prepared the certificate of incorporation to the effect that two previous applications for approval had been made in July 23, 1912, and on September 21, 1912, but that both were rejected by the Secretary of State "for the reason that the objects of the proposed

corporation were so broad as to encroach upon the power of a corporation which might be formed under the State Regents, pursuant to the Education Law." This may explain the unusual restrictions of intent quoted above.

The copy of the certificate has been forwarded to the International Library, Archives, and Museum of Optometry, Inc.

Dr. Staiman remembers:

Concerning the blurb on the Rochester School of Optometry in the January issue Jacob Staiman, O.D., writes as follows:

> It was my good fortune to have matriculated into the three year course in 1923 as described in the "TWENTIETH ANNUAL CATALOGUE" which Dr. Leeds donated to ILAMO. The faculty listed did not name the subjects which were taught by each of the instructors. Besides Dean Petry who taught his course in Lens Effectivity and Vertex Powers, Maurice Wilder taught Theoretic Optics; his brother, Herbert E. Wilder, Practical Optics and shop practice; Harry M. Bestor lectured in Practical Optometry; Clarence C. Rodgers, mathematics; Ralph E. Dublin, Ophthalmic Anatomy and Pathology; Charles E. Cox, Clinical Director; Benjamin E. Fickes, assistant to the dean and instructor in psychology and history of optics. Finally Dr. Theodore H. Martens was an Osteopath who taught human physiology and served as the health director for the students.
>
> One more faculty member, Dr. Gordon H. Gliddon, was a professor of Physiological Optics. If you will refer to the Dartmouth list on page 8 of the January Newsletter, you have overlooked Dr. Gliddon who received his Ph.D. in this field and was also a lens scientist for a major optical manufacturer of photographic lenses. Dr. Gliddon was a registered optometrist but devoted his time to the academe. In class he demonstrated a mechanical eye constructed on calculations of the human eye. The components reproduced both the size of the globe and the curvatures of all the media. When he left Rochester he joined the staff of the Dartmouth Eye Institute and used some of his data from studies with the student body of our school. The student body of our class had two female graduates in 1926.
>
> In closing, let me mention my appreciation of the opportunity to present my explanation of the "X" bridge to members in Philadelphia, and it was a distinct pleasure to have met all of you.

ILAMO starts new serial publication:

VISIONLINK is the title of a new monthly publication by the International Library, Archives and Museum of Optometry, Inc., 243 North Lindbergh Boulevard, St. Louis, Missouri 63141, U.S.A. Issue no. 1 of Vol. no. 1 appeared in March 1983, edited by Linda J. Draper. The newsletter will keep its readers abreast of new acquisitions, services, and developments. The first issue included notes on recent contributions received, ILAMO Board actions, new books in the library, recently added audiovisuals, and featured the table of contents of the January 1983 issue of Vision Research.

The remarkable annual subscription rate is only $3.00.

Early laser developments:

Nobel laureates Nicolass Bloembergen of Harvard and Arthur Schawlow of Stanford were featured speakers in a very informed panel session moderated by Boris P. Stoicheff of the University of Toronto and which included several prominent questioners in the field of laser development. The theme was the history of lasers, and uppermost was reminiscing. The full conversation was transcribed and published in the March/April 1983 issue of Optics News, Vol. 9, no. 2, pp. 13-16.

Spectacles in 17th century art:

The Murillo (1617-1672) exhibitions at the Royal Academy of Art, Piccadilly, London, revealed at least two bespectacled male subjects, reports Elizabeth-Ann Colville in an illustrated report in the February 12, 1983, issue of The Ophthalmic Optician, Vol. 23, No. 4, p. 98.

Lorgnettes and opera glasses:

"The History of the Opera Glass" by C.W. Talbot in the January 12, 1911, issue of The Optical Journal and Review, Vol. 27, No. 3, pp. 145-148, is largely descriptive of the private collection of Madam Alfred Heyman of Paris, which was exhibited at the Paris Exposition earlier. In the article the terms "lorgnette" and "opera glass" are considered synonymous. The 21 illustrations are explained with dating commentary.

Much more recently, in the June 10, 1977, issue of The Optician (London), Vol. 173, No. 4488, there appeared two one-page illustrated articles on lorgnettes of the spectacle-lens type. The one by D.C. Davidson, p. 22, entitled "From my collection: The long-handled lorgnette" deals largely with its historical fashion role. The other by L.S. Sasieni, p. 21, entitled "A guide to lorgnettes," describes the styles currently available from firms in Glasgow, London, and Paris.

H.W Hofstetter, Editor