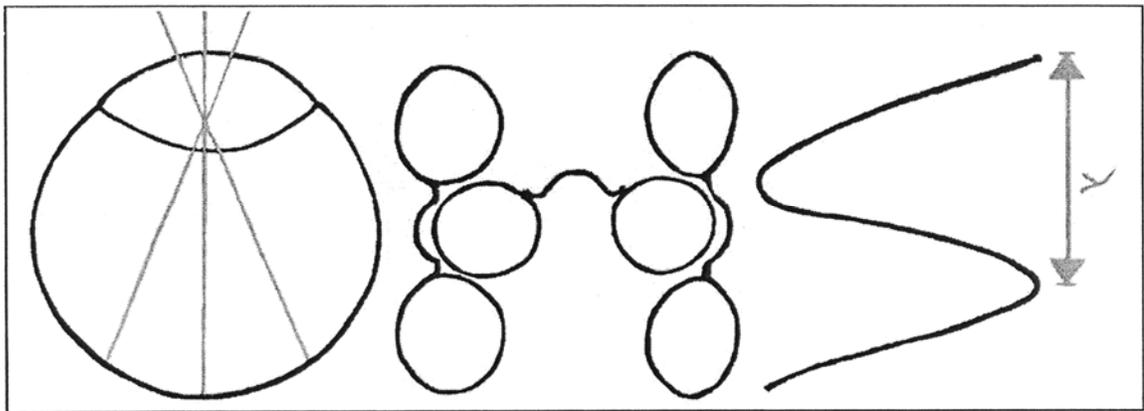


# HINDSIGHT

## Journal of Optometry History

October, 2011  
Volume 42, Number 4



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](http://www.opt.indiana.edu/ohs/opthohiso.html)

# HINDSIGHT: Journal of Optometry History

October, 2011

Volume 42, Number 4

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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

## OHS Executive Board for 2012

Twenty-three ballots were submitted for the election of three new members of the OHS Board. Those elected were John Amos, Morton Greenspoon, and Alfred Rosenbloom. The members of the OHS Executive Board for 2012, their email addresses, and the year of the expiration (on December 31) of their term on the Board are as follows:

Jerry Abrams, abra2020@sbcglobal.net (2013)

John Amos, eyedoc@uab.edu (2015)

Arol Augsburger, aaugsburger@ico.edu (2013)

Irving Bennett, irvbennett23@gmail.com (2012)

Jay Enoch, jmenoch@berkeley.edu (2014)

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Alden Norman Haffner, anhaffner@msn.com (2014)

Chuck Haine, chaine@hainews.com (2012)

Alfred Rosenbloom, aarlupro@sbcglobal.net (2015)

These Board members will elect among themselves the officers for 2012.

## Index for volumes 31 to 40

An index for volumes 31 to 40 of Hindsight has been compiled and is being sent to all current OHS members. This follows the precedent of indexes having been prepared for volumes 1 to 10, 11 to 20, and 21 to 30. Hindsight and its predecessor, the Newsletter of the Optometric Historical Society, have become quite a repository of information on optometry history. Volumes 1 through 40 constitute 2,310 pages. The four indexes for volumes 1 through 40 total 177 pages. Surely this must be the most comprehensive textual source of optometry history information!

## Reminisce-in and Executive Board Meeting, October, 2011

The Optometric Historical Society held a “Reminisce-in” at the annual meeting of the American Academy of Optometry in October, 2011. The OHS Board of Directors also met at that meeting.

The photo below shows the OHS Board members who attended the October, 2011 Board meeting and some of the persons who attended the OHS Reminisce-in which preceded the Board meeting. From left to right they are: Richard Hopping, Bennett McAllister, Jay Enoch, Al Nemiroff, Howard Backman, Alden Norman Haffner, Arol Augsburger, and Charles Haine.



### Board of Directors Meeting Minutes Optometric Historical Society Boston, MA October 14, 2011

**Board Members Attending:** Chuck Haine, Arol Augsburger, Jay Enoch, Alden N. Haffner  
**Guests Present:** Richard Hopping, Bennett McAllister, Tony Di Stefano  
**Members Absent:** Irving Bennett, Doug Penisten, Jerome Abrams

The meeting was called to order by Treasurer Augsburger in the absence of President Bennett and Vice President Penisten at 11:30 AM in Room 301 of the Hynes Convention Center in Boston, immediately after the Reminisce-IN held in conjunction with the Annual Meeting of the American Academy of Optometry. Drs. Alden N. Haffner and Howard Backman gave historical perspectives of the evolution of optometric care in Medicare in the United States and in Canada at the Reminisce-IN attended by eleven people.

Minutes of the November 19, 2010 OHS Board of Directors Meeting were reviewed and approved (copy available to members upon request)

Treasurer's report was presented (copy available to members upon request) and approved. As of July 1, 2011, \$13, 354.17 was in the OHS Bank of America Checking Account.

Treasurer Augsburger reported that as of October 3, 2011 OHS records show 98 current members, 18 of which are life members, and 6 are from outside the US.

## **Old Business**

### Memorandum of Understanding with the Optometry Cares – the AOA Foundation

Three years ago when the OHS found itself with no office secretary to accept checks and keep records and only a skeleton of an organization, it was felt by some that the organization needed a home headquarters. Bennett was president of the new AOA Foundation and explored with the then Administrative Director of that foundation, a "Memorandum of Understanding" wherein the OHS would fall under the Optometry Cares charity but have its own officers, charge its own dues, and be for the most part independent. Negotiations were conducted between the Board members of OHS and the Charity and an agreement was hammered out. Members of the OHS Board approved the agreement and things have been working relatively well. However, a search of the records indicates that this MOU was never signed by either the foundation or the AOA.

A motion was made, seconded, and passed to authorize the officers of the OHS to sign the agreement and effect an orderly transfer to "Optometry Cares."

### General Report on OHS Activities

Things appear to be going well. HINDSIGHT, the OHS quarterly publication, continues to be edited well by member David Goss and his arrangement with the School of Optometry at Indiana University of publishing and mailing the bulletin works satisfactorily. We are now running bimonthly Historical Gems on the Optometry Charity website and these appear to be well received. Our membership that had dipped over the years to not more than 60 is up and there are today over 98 dues paying or life members.

### Distribution of Historical Gems from Website (with notice on "First Look")

We shall continue publishing Historical Gems on the Foundation's website. There is a treasure trove of material available of these snapshots of optometric history; nonetheless we continue to urge members to submit historical happenings of which they have first-hand knowledge. It is only fair to mention that the publication of three gems dealing with the Cyrus Bass lawsuit in the mid-1960s has resulted in an agreement by Melvin Wolfberg, former OHS president, and Tom Eichhorst, former AOA Council, to collaborate on a heretofore non-published report of the AOA activities with the US

Department of Justice at the time of the Bass litigation. This piece of history will be submitted to the journal of the American Optometric Association (*Optometry*) for publication in early 2012.

### **New Business**

#### Fees to be Charged for Back Issues of HINDSIGHT

This is an information item to the OHS Board of Directors: Dr. Goss, HINDSIGHT editor, does keep a limited number of back issues of the quarterly. Often new members ask for several back issues and he tries to comply. This gets a bit sticky when the request comes from overseas as one did this past month. After consultation, David agreed to this policy: *back issues, when available, will be charged US\$2 per issue plus the cost of the postage.*

#### Membership Approval of MOU and process to shift assets has been approved by passage of motion under Old Business

#### Should we schedule a Reminisce-IN at Optometry's Meeting (AOA Congress) in Chicago?

We are not sure if the attendees of Optometry's Meeting would be interested in a Reminisce-IN at their annual meeting but, if we elect to go under the Foundation umbrella, it seems only fair and correct to schedule a Reminisce-IN at the AOA congress. After considerable discussion, the consensus of the group was to attempt to have a Reminisce-IN at Optometry's Meeting in Chicago, and also during the annual meeting of the OHS and Reminisce-IN in Phoenix next fall in conjunction with the American Academy of Optometry. A resolution authorizing the OHS President to negotiate with the AOA for such meeting was passed.

### **Good and Welfare**

The assembled members of the OHS Board of Directors send their best wishes to President Bennett with our concerns and hopes for his wife Trude's progress and improvement during her current time of health challenges.

Respectfully submitted,

Arol Augsburg, OD  
Secretary-Treasurer

# The 1954 American Optometric Association Seattle Resolution and Medical Reaction to it

**Irving Bennett, O.D.**

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The American Optometric Association (AOA) Congress in Seattle, WA in June 1954 was “different” in at least two ways. There were no commercial exhibits. The optical industry had decided to have an Optical Fair in Chicago at the same time and vendors were concentrating their efforts in attracting eye care professionals to the Windy City.

The lack of the funding stream that ophthalmic exhibits generally provide to AOA conventions was a major concern among the leadership of AOA and the leadership reluctantly increased Congress registration fees (albeit, slightly). It was a pleasant surprise that attendance was very good.

As was customary in the earlier years of AOA, there was considerable floor debate in Seattle on issues involving the profession. A raise in membership dues and the appointment of a regional Nominating Committee were two contentious issues that met the fate of being tabled, resurrected and then passed. The news that the Department of Optometry at Columbia University was being discontinued was shocking. This ended the oldest university-affiliated school of optometry, a school begun in 1910.

## **The Seattle Resolution**

Yet, in spite of all that going on, the 1954 AOA Congress held in Seattle will best be remembered for adopting, without discussion or dissent, the following resolution that concluded:

*“Resolved, that it is the stated policy of the American Optometric Association in convention assembled that the field of visual care is the field of Optometry and should be exclusively the field of Optometry; and be it further*

*“Resolved, that the individual state associations are recommended to make serious study of the Optometry laws in their states to the end that exemptions be restricted, limited and ultimately eliminated and that encroachments by untrained, unqualified and unlicensed persons into the exclusive field of Optometry be prevented through the established enforcement agencies in the respective states.”*

What exactly did the AOA mean by that resolution? According to Wolfberg,<sup>2</sup> writing in the *Journal of the American Optometric Association* in March 1999, “the resolution was directed toward ‘untrained and unlicensed persons.’...Unfortunately, several medically oriented publications, such as the October 1954 issue of *Guildcraft*

and the August 1955 edition of *Medical Economics* conveyed the highly inflammatory message that ‘Optometry wants to halt MD-Refracting’.”

In spite of the fact that the AOA House of Delegates adopted a clarifying resolution in 1955, the “damage” was done. The reaction at the American Medical Association (AMA) was both swift and decisive.<sup>3</sup> At the AMA House of Delegates Meeting in Atlantic City in June 1955, nearly a year after the AOA adopted its resolution, came the reaction in the form of several resolutions, the main of which officially stated:

*“RESOLVED, That it is unethical for any doctor of medicine to teach in any school or college of optometry or to lecture to any optometric organization, or to contribute scientific material to the optometric literature, or in any way impart technical medical knowledge to nonmedical practitioners.”*

### **The AMA Convention of 1955**

A report of what actually went on at the AMA convention reads like a soap opera. We have managed to get a copy of the “confidential” letter written on June 15, 1955 by AOA General Counsel Harold Kohn to the Officers and Trustees of the AOA. It was a five-page single-spaced typewritten report on the AMA convention, based on reports, correspondence, and communications he had gathered from MDs and others who attended the convention or who had heard about it from others who did attend.

Some direct and unedited quotes from Attorney Kohn’s letter will give readers a good idea of the strong feelings that existed at that time:

- “The first thing to appreciate and understand is the highly volatile and explosive nature of the meeting. First of all, the usual attendance at the Ophthalmological Section meetings run between 300 and 400. This year [1955] there were 800. They came because they were highly incensed and emotionally excited over two topics – optometry and dispensing by ophthalmologists.”
- “One description was that upon occasion, the discussion became so heated that the meeting almost verged upon a howling mob.”
- “..... a large number of attendants were ophthalmologists who dispensed their own glasses – which, by the way, is progressively becoming the trend....This group was not only vocative, but viciously vituperative at the meeting.”
- “The final reason for the tone and atmosphere was the violently anti-optometric nature of the Committee that formulated the resolutions.....I am told that the Chairman was Dr. Ralph O. Rychener, of Memphis, Tenn. He was fresh out of the Tennessee Optician bill fight and furthermore has been at loggerheads with Southern College [of Optometry] claiming in the past that the college improperly indoctrinated its students.” [Note: Mr. Kohn proceeded to name the AMA Resolutions Committee members and noted each one’s ‘credentials’ for being anti-optometry.]

- “All of the resolutions begin with ‘WHEREAS’ clauses and preambles which excoriate optometry. They not only belittle, demean, and slur optometry, but they accuse optometry of the greatest of all mortal sins in the medical mind – that optometry is a cult. This medically constitutes excommunication and optometrists are placed on a level where not only a decent and respectable physician will have no converse with them, but the public mind is poisoned....”

There actually were five resolutions pertaining to optometry and to optical dispensing discussed at this AMA Convention and four were adopted. Briefly, what follows are the foci of the resolutions:

- The first resolution made it unethical for any ophthalmologist or physician to teach in an optometric school or college; to lecture before any optometric or other lay group; to impart knowledge, directly or indirectly, to optometrists and forbidding the writing of articles for optometric magazines.
- The second resolution criticizes the National Society for the Prevention of Blindness, and other lay organizations, for having any relations whatsoever with optometry. This resolution, among other things, asked for a repeal of Public Law 734 permitting optometrists to certify blindness in patients, and it demanded that all commissions issued to optometrists in the Armed Services be recalled and that no further commissions to optometrists be issued.
- The third resolution denounced as unethical the association of an ophthalmologist in practice with an optometrist, but it countenanced the employment of an optometrist by an ophthalmologist if the relationship was that of employer/employee. This resolution was defeated because it was pointed out that its passage would amount to “stultification.”
- The fourth resolution, which was adopted, asked that “suitable criteria” be set up for optometrists to refer patients to ophthalmologists. The resolution does not establish the criteria, but it denounces referrals by optometrists for “an eye affliction” to a general medical practitioner, dentist or anyone else other than an ophthalmologist. The resolution states that the first referral must be to an ophthalmologist and it is up to the ophthalmologist to make any subsequent referrals.
- The fifth and final resolution involving eye care which was adopted at this 1955 AMA convention reversed standards of more than a century and permitted ophthalmologists to dispense spectacles and contact lenses, furnishing materials above cost and at a profit.

### **AOA Clarifies its Seattle Resolution**

The AOA response to the AMA resolutions resulted in a strong effort to “clarify” the 1954 resolution. Unfortunately it was too little, too late. AOA members individually

worked with local ophthalmologists with whom they had referral relationships, and the AOA collectively worked hard on many fronts to improve inter-professional relations. There were but few tangible results.

The AOA at its annual congress in June 1955, held in Milwaukee, Wisconsin, unanimously adopted Resolution No. 5 that attempted to clear up what optometry really meant by its Seattle action. It was a long resolution with three Whereas clauses and seven Resolveds. Essentially the resolution declared it had no intention to eliminate the exemption granted to ophthalmology to practice optometry, and that optometry had no intention "to enter into or engage in the practice of ophthalmology."

The damage had been done and the AOA clarifying resolution did little to quell the medical reaction; the breach between the two professions was out in the open and it began to fester. Years went by until July, 1964, when a Chicago optometrist named Cyrus Bass filed a lawsuit against the American Medical Association and eight Chicago ophthalmologists charging violation of the Sherman Act, and later when the AOA brief of complaint against the AMA was filed with the U.S. Department of Justice. More will be presented on those legal actions in a future article.

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# Biographical Notes on Five Authors Associated with the Northern Illinois College of Optometry

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## **Abstract**

*This paper presents biographical sketches of five persons associated with the Northern Illinois College of Optometry (NICO) and/or its predecessor and descendent institutions, and it describes the contents of the books that they authored. These five persons were William B. Needles (1879-1948), James John Lewis (1868-?), William D. Zoethout (1871-1959), Carl F. Shepard (1893-1956), and Leo Manas (1910-1998). Needles was founder and proprietor of NICO. The other four were faculty members there. Two of the books were among the forty books nominated as the most important twentieth century optometry books in a survey conducted in 2004.*

**Key words:** *optometric education, optometry books, optometry history.*

This paper discusses the careers and books of five optometry authors. They are connected only by the fact that they were all associated with the Northern Illinois College of Optometry and/or its predecessor schools.

## **William Bray Needles (1879-1948)**

William B. Needles was born in Sedalia, Missouri.<sup>1,2</sup> As a teenager in Sedalia he worked in a jewelry store that sold spectacles, and in 1899, attended the McCormick Optical College in Chicago.<sup>3</sup> After setting up practice in Kansas City, Missouri, Needles taught at the Kansas City School of Optometry and gave instruction in refraction for the F.C. Merry Company.<sup>4</sup> In 1907, he started a school named the Needles Institute of Optometry with an initial enrollment of three students. With the subsequent success of the school he incorporated it in 1910.

In 1922, Needles purchased the Northern Illinois College of Ophthalmology and Otology in Chicago from George McFatrigh. In 1926, Needles moved most of the faculty and staff of the Needles Institute to Chicago and merged the two schools into the Northern Illinois College of Optometry (NICO).<sup>5,6</sup> Needles served as president of NICO for many years, retiring in 1942.<sup>7</sup> His prominence in optometry is evidenced by the fact that he was an honorary life member of the American Optometric Association.<sup>2</sup> He became a Fellow of the American Academy of Optometry in 1930.<sup>8</sup>

Needles compiled four short books for instructional purposes. An undated book was *Condensed Study of Optics*. It contained within its 40 pages overviews of light and lenses, ocular anatomy and physiology, and refractive examination procedures, along with a number of blank pages of notes. Another undated book was the 56 page

*Skiametry, Static and Dynamic*. The title page identifies Needles as president of the Needles Institute of Optometry, so it would have been published in 1922 or earlier. It contained arguments for the advantages of retinoscopy, theory and procedures for static retinoscopy, and method of dynamic retinoscopy. *Practical Work on Eye Muscles*, published in 1919 with Ernest Occhiena as a co-author, presented brief outlines of ocular neurology, and testing and treatment of lateral and vertical phorias and strabismus. More than a third of its 63 pages were blank, presumably to allow the taking of notes. *Anatomy and Physiology of the Eye*, also published in 1919, consisted of outlines of the anatomy of the ocular adnexa and of the globe.

### **James John Lewis (1868-?)**

James John Lewis was a professor at the Northern Illinois College of Ophthalmology and Otology (NICOO), but finding additional information about him has proven elusive. The WorldCat online library catalog gives his birth year as 1868. Advertisements for NICOO in 1905 through 1908 in *The Optical Journal* listed their faculty, and Lewis was among them. A 1901 advertisement for NICOO does not list him among the faculty. Their advertisements in *The Optical Journal* for 1902 through 1904 do not list the faculty. In 1911 through 1916, there were three mentions in *The Optical Journal* of Lewis, professor at NICOO, vacationing or fishing in Wisconsin.<sup>9-11</sup> The title page of a 1919 edition of one of his books identifies him as being a professor at NICOO. So it appears that he taught at NICOO from at least as early as 1905 to at least as late as 1919. The memoir of an optometrist who attended NICOO in 1914 and 1915 said that Lewis was “very humorous along with his intelligence.”<sup>12</sup>

Lewis compiled the *Pocket Optical Dictionary*, a small book which can fit into a shirt pocket. The year of publication of the first edition is uncertain. Second and third editions appeared in 1907 and 1908. Fourth through seventh editions were published under the title *Pocket Ophthalmic Dictionary* in 1913 through 1916. Eighth and ninth editions were published in 1935 and 1946, respectively. The publisher given for the ninth edition was J.J. Lewis, so Lewis may have been still living as late as 1946. The fact that it went through so many editions suggests that it was widely used.

Editions of Lewis's *Pocket Optical Dictionary* and *Pocket Ophthalmic Dictionary* varied from 200 to 300 pages. The sixth edition, for example, consisted of 286 pages. It included terms in refraction, optics, binocular vision, ocular anatomy, and ocular disease. Most dictionary entries were a few lines long, but some extended to five or six pages, such as retinoscopy, transposition, trial case, light, and lens.

Lewis published *State Board Examinations Questions and Answers* in 1916 and 1919. The 124 pages of the 1916 consisted of basic information on light, lenses, and refractive procedure; questions with answers on lenses, optics, refractive errors, accommodation, binocular vision, convergence, and ocular anatomy; and questions taken from the board examinations in New York, Kansas, and South Dakota.

WorldCat online library catalog<sup>13</sup> and *The National Union Catalog* of books<sup>14</sup> both identify James John Lewis (1868-?) as also being the compiler of *The Collegiate Law*

*Dictionary*, published in 1925. The title page of *The Collegiate Law Dictionary* does not give an affiliation for Lewis, and I have not been able to find any independent confirmation that James John Lewis, the compiler of the optical dictionary is the same person as James John Lewis, the compiler of the law dictionary. I would be interested in hearing from any readers who could provide additional information on Lewis.

### **William Douwes Zoethout (1871-1959)**

W.D. Zoethout was born in Holland on August 19, 1871.<sup>15</sup> He came to the United States in 1881.<sup>16</sup> He earned a bachelor's degree in 1893 from Hope College in Holland, Michigan, and a Ph.D. in physiology in 1898 from the University of Chicago.<sup>17</sup> He taught at a number of schools, among them being Valparaiso University from 1911 to 1918, Chicago College of Medicine and Surgery from 1910 to 1919, and Chicago College of Dental Surgery, Dental School of Loyola University from 1912 to 1944.<sup>17</sup> Zoethout taught at NICO for a number of years, including time in the 1930s.<sup>18</sup>

WorldCat online library catalog shows Zoethout being the author or co-author of five books, most of them going into many editions.<sup>13</sup> These books are: *The Embryology, Anatomy, and Histology of the Eye* (1906); *Laboratory Manual of Physiology* (first edition in 1913, fifth edition in 1926); *Laboratory Experiments in Physiology* (several editions from 1928); *Textbook of Physiology* (first edition by Zoethout in 1916, thirteenth edition by Zoethout and Tuttle in 1958); and *Physiological Optics* (1927, 1935, 1939, 1947).

*The Embryology, Anatomy, and Histology of the Eye* was published in 1906 with Earl J. Brown as the first author and Zoethout as second author. The first 123 pages of the book were devoted to ocular anatomy written by Brown. Pages 127 to 233 were on ocular optics and ocular sensory physiology written by Zoethout. Some of the figures that Zoethout used in this book appeared later in his *Physiological Optics*. Zoethout wrote that most of his material in this book was taken from lectures he gave to the Chicago Optical Society.

Zoethout's *Physiological Optics* was a commonly used book judging from its availability in libraries and from online used book sellers. It was one of forty books to get multiple nominations for the most important twentieth century optometry books.<sup>19</sup> The length of the book gradually expanded from 368 pages in the 1927 first edition to 430 pages in the 1947 fourth edition. After introductory chapters with basic information on the eye, the nervous system, and optics, the book covered accommodation, ocular optics, sensory aspects of vision, color vision, eye movements, binocular vision, and other topics. The preface to the first edition said: "This book offers nothing new. The author has merely served in the capacity, as a certain scientific magazine puts it, of translator and interpreter, and if he has succeeded in awakening the interest of the reader, he feels repaid."

### **Carl Frier Shepard (1893-1956)**

Carl Shepard graduated from Needles Institute of Optometry in 1912 and set up practice that same year in Hannibal, Missouri, the town where he had been born.<sup>20,21</sup> In

1923, at W.B. Needles' bidding, Shepard joined the faculty of NICO. Shepard was NICO's first director of research, and he worked on the development of stereoscope vision tests for the Keystone View Company.<sup>20</sup> He was also part of an associate practice in Chicago. It is said that he was a very popular and frequent lecturer at optometry meetings.<sup>20</sup> He was technical editor for *Optometric Weekly* for over twenty years. Among his publications in *Optometric Weekly* was a summary of average phoria and vergence test results from a large number of optometry practice patients.<sup>22</sup>

Shepard spent his entire teaching career at NICO except for a year starting in 1937 as Dean of the Monroe College of Optometry in Chicago.<sup>23,24</sup> Monroe College of Optometry was founded in 1936 as Midwestern College of Optometry, with the name change to Monroe College of Optometry in 1937, and another name change to Chicago College of Optometry in the late 1940s. It and NICO merged in 1955 to become the Illinois College of Optometry.

Shepard had three publications in monograph form. *Ocular Psychometry: Being an Outline of the Fundamental Principles Governing the Control of the Ocular Muscles* (65 pages) by Shepard and William Arthur Mendelsohn appeared in 1928 after it had been published in serial form in the *American Journal of Optometry*. A few changes and additions were made from the journal articles to the monograph version. The monograph contains some basic information on ocular structure, function, and development; treatment of heterophoria and amblyopia; fifteen brief case reports; and comments on the professional practice of optometry.

*The Seven-Fold Stimulus-Response System: A Manual of Procedure in Optometric Diagnosis* (213 pages) by Shepard and Thomas G. Atkinson was published in 1935. The authors noted that visual responses occur to satisfy one or more of four demands: fixation, focus, single vision, and comfort. They then wrote about concepts of routine refraction, accommodation, and convergence tests; routine analysis of test results; prescription of lens adds and prisms; adjustment of lighting; and various aspects of vision training. The book also contained over 25 pages of outlines and tables for ready reference in practice.

*Optometric Science in Practice* (89 pages) was a spiral bound softcover book. The book presented some basic aspects of behavioral science and statistics and how they apply to optometric testing and binocular function. Tables summarizing data from files of Chicago optometrists and the NICO clinic were used to attempt to examine relations of test results to ocular discomfort, effects of long term near work, and reliability of tests. Optometric services and fees were also briefly addressed.

### **Leo Manas (1910-1998)**

Leo Manas was born June 27, 1910 to a father born in Russia and a mother born in Tennessee.<sup>25-27</sup> Leo's father came to the United States in 1904 and was a merchant dealing in jewelry, luggage, and sporting goods.<sup>26,27</sup> WorldCat online library catalog gives Manas's death year as 1989, but that is incorrect. Leo Manas died on February 12, 1998 in Florida.<sup>28-31</sup>

In 1934, Manas received an undergraduate degree from University of Cincinnati, and in 1937, an M.A., also from University of Cincinnati.<sup>25</sup> The title of his M.A. thesis was *Factors Effecting [sic] the Graininess of Photographic Negatives*.<sup>13</sup> Manas received his O.D. degree from NICO in 1946. Manas practiced in Chicago and taught binocular vision and vision therapy at Illinois College of Optometry for many years. He retired in 1975 and moved to Florida.<sup>32,33</sup>

Manas was particularly well known for his book *Visual Analysis*. The first edition (72 pages) was published in softcover form in 1952. It provided background on accommodation and convergence problems, outlined how to do the tests in the Optometric Extension Program (OEP) 21-point examination, explained the mechanics of the OEP case analysis system, and defined terms in a glossary. The second edition (softcover, 143 pages), published in 1958, added material on case history, visual skills testing, theory and significance of the tests in the 21-point sequence, case examples, and a question and answer section. The hard cover third edition, published in 1965, contained significantly more pages (334 pages) in part because it used a larger font size and was produced with a smaller height and width than previous editions. Textual material and figures were added to several chapters, particularly the chapter on mechanics of case analysis, and new chapters on myopia and esophoria as adaptive conditions were added. The significance of Manas's book can be shown by the fact that it was listed on multiple responses to a survey on the most important twentieth century optometry books and that a fourth edition was published in 2009 with editing by four optometrists who had been students of Manas or who had studied his writings.<sup>34</sup>

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# Getting Insurance Companies to Pay for Vision Therapy Coverage

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I joined the American Optometric Association (AOA) in 1954 and, over the years, went through the offices in my local society in Central New York. The Insurance Committee of the New York State Optometric Association (NYSOA) proved to be a fascinating assignment on my way to the state presidency in 1965, the year the AOA held its convention in New York City. It was a privilege to welcome the delegates from all over the nation to our Empire State. Most likely New York City was chosen to host the AOA convention because the World's Fair was being held there in Flushing Meadows on Long Island.

My first AOA assignment was the Insurance Committee. The chairman at the time was Sam Mann, O.D., of California. The other committee member was John Davis, O.D., of Kansas, renowned for his extensive autograph collection of famous personages and the fact that he was the coach of the women's Olympic track team.

AOA's insurance broker, Daniels and Head, was a small firm from Portsmouth, Ohio whose president was John Lewis. John's background was electrical engineering, but he was a better salesman, so insurance was an ideal field for him. Up to the time I joined the committee, insurance was a rather mundane matter. That, however, soon changed as rates suddenly escalated by about 30 percent due to radical changes in the health care and insurance industries, brought about, I think, by Federal legislation. We, on the AOA Insurance Committee, began to be subjected to a barrage of complaints from AOA members. It fell to me to respond to the membership about what was going on. From that time on, it was rather routine for insurance rates to increase dramatically.

The AOA insurance program included life and accident and health coverage, with the Continental Insurance Company. The carrier was later shifted to New York Life Insurance Company when some great casualty losses shook Continental severely. The association's professional liability, or malpractice, insurance was with The Aetna Life and Casualty. Aetna was represented at our meetings with various people, the leader of which was Dr. William Guillette, medical director of the Casualty Division. Attending also was Mr. John Pecorino, Esq., from the legal department, and Mr. Pierce Ennis, of the marketing group. Occasionally, when there was a questionable series of claims, we would meet with Mr. Dean Krebs, manager of the claims department.

I report this to point out that our relationship with the insurance representatives was exceptionally good and we found them very reasonable to deal with. The soundness of that relationship was brought to bear on a number of questionable claims that were causing great turmoil at Aetna.

Dr. Guillette called me on the phone one day and said that their claims manager was in a stew and could the committee help out. Optometrists were stating in their claims that they were “improving children’s ability to read.” There was no language in Aetna’s contracts that covered “reading ability” so those claims were rejected as “not covered”. The optometrists were upset because they felt they were being discriminated against. They complained to their state insurance commissions which in turn contacted Aetna for an explanation. Dr. Guillette asked if we could explain this situation to the optometrists. I said that we would be glad to try and solve the matter. The question seemed to be “how should optometrists present their claims in a manner that will compensate them for their services.”

It was evident that optometrists were not familiar with insurance contract language. But also, the insurers were not at all sure of optometry’s capabilities.

My suggestion to Dr. Guillette was that we get our two sides together to see where the misunderstandings were and decide how best to correct them. I called Dr. Sam Mann, the chairman of our Insurance Committee and explained the situation and what I felt we should do. Dr. Mann agreed and asked if I would handle the details since I was familiar with the matter. It was decided that we would meet in the AOA office.

The initial conversation at the meeting indicated that we were going to get into a chaotic sort of charge and countercharge exchange. Dr. Carroll Martus, on the AOA “negotiating team,” felt that an offense was the best defense. As chairman of the meeting, I requested that Dr. Guillette state the nature of the problem as he saw it. He began by explaining that a large part of the general problem concerned Aetna’s Major Medical contracts. In these contracts the treatment of medical conditions of the eye were covered. One such condition, for example, was strabismus; another was amblyopia. The customary medical treatment for strabismus was surgery. The claims from optometrists that were in dispute were for the optometric treatment of these conditions through vision therapy. This was what concerned him because, in the medical journals he researched, he found that most ophthalmologists had little, if anything, good to say about such treatment.

Two forces had brought Dr. Guillette to seek this confrontation. First, Aetna was being literally bombarded by optometrists who were instituting, or threatening to institute, lawsuits against Aetna for failure to pay what they felt were legitimate claims, as well as by state insurance commissioners inquiring about unpaid claims of optometrists. The second force was Bill’s own need to resolve this in a forthright and honest manner. His brother was an ophthalmologist and so it is not unreasonable to assume that he felt optometry, quite possibly, was overstepping its boundaries a bit.

The discussion dwelt upon the distinction between the medical model of vision and the optometric model. Dr. George Milkie gave a very apt and lucid explanation of the differences and the rationale to support the argument that the vision therapy claims were legitimate.

It was eventually agreed that more meetings were required and that information and additional questions would be exchanged. The Aetna people brought forth a statement concerning the handling of vision therapy which they wanted the AOA to consider. It became apparent very quickly that there were many changes necessary and that it would be best to allow time for the statement to be considered in some depth. This, too, was readily agreed upon.

This relatively brief meeting may have soon been forgotten by some of the participants; at best not many people were aware of it even occurring. In my estimation, however, it struck a spark that was to ignite into a guiding light for optometry for many years to come and served as the beginning of some of the most meaningful advances that optometry has made in taking its place in the mainstream of health care.

Further discussions, and Dr. Guillette's willingness to read optometric literature, finally convinced him that perhaps optometric procedures did have some validity. To satisfy the requirements of the Major Medical contracts a list of conditions that were amenable to vision therapy was drawn up. Certain criteria were established by which the efficacy of treatment could be evaluated. Time periods and/or numbers of training sessions were set as progress report checkpoints. This all culminated in a set of "guidelines" from which both the Aetna Claims Department and optometrists could work and understand a common language.

The significance of the recognition by one of the world's largest insurance carriers that optometric vision therapy was effective in ameliorating many conditions of the human visual system seems to me a great milestone in optometry's advance.

Armed with these credentials and the self-confidence engendered by the experience of the successful negotiation, I asked the AOA Board of Trustees for permission to visit several major insurance carriers and try to get them to accept the same guidelines for their Major Medical plans. They agreed. Through the enthusiastic support of Al Katz, AOA Controller, who went along on most of these "missionary" ventures, we covered a significant part of the insurance industry.

Being able to say, "These are the 'guidelines' we worked out with Aetna", seemed to have a magical effect in most instances. We were fascinated by the manner in which powerful insurance executives accepted our message as a welcome and unexpected gift. The guidelines on vision therapy were readily looked at since all of the carriers had major medical contracts for which the guides were applicable.

It was time and money well spent since it returned those dollars many times in claims payments to optometrists over the years.

# Miscellany

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## **Louie Jaques**

Several OHS members sent in comments about my article on Louis Jaques in the July, 2011, issue of *Hindsight*. Stuart Mann, my classmate from the Pacific University College of Optometry Class of 1974 said that I should have mentioned that Jaques had spoken to our class. I remember that he gave an inspirational and entertaining talk, but I don't recall exactly what he had to say. Stuart said that he didn't recall what Jaques had to say either, but that he probably talked about the topics that he wrote the most about, blur point testing and binasal occluders. Stuart said that he recalled that a student in a class ahead of us wore binasal occluders for a week after Jaques spoke to that class.

Gary Williams noted that Jaques signed correspondence "Dad" based on his column in *Optometric Weekly* "A Father's Advice to his Sons." Gary wrote: "When I was a student, I came across his name and wrote a letter to him. He responded and he signed it 'Dad'. I wasn't familiar with his moniker and thought it very strange. I did purchase a near-point card from him. You mention that H. Ward Ewalt contributed to one of his books. Two months after I entered practice, our senior partner, Henry E. Quick, died. Ward came to his funeral. He was an exceptional gentleman. Most probably know him from his role in the AOA. I attended some of his lectures on vision therapy."

Irving Bennett wrote to say this about Jaques: "I modeled my 'Dear Linda' column in *Optometric Management* after his popular 'A Father's Advice to his Sons' in *Optometric Weekly*."

## **Howland on History of Ocular Aberrations**

On September 2, 2011, noted vision scientist Howard Howland, Ph.D., of the Department of Neurobiology and Behavior at Cornell University, gave a seminar entitled "The History of Study of Monochromatic Aberrations of the Eye," at Indiana University School of Optometry. His coverage of the topic extended up to and included his own work on the subject. The following is a brief summary based on the notes that I took during his seminar.

Diagrams of spherical aberration were published in Johannes Kepler's *Dioptrice* in 1611 and in Christiaan Huygens' *Treatise on Light* in 1690. Thomas Young was the first to measure spherical aberration and he reported on it in his Bakerian Lecture in 1801. Young also demonstrated negative spherical aberration with accommodation.

Helmholtz (1896) noted that Volkmann obtained different spherical aberration results for different persons. However, Volkmann didn't control for accommodation. Helmholtz noted that spherical aberration in the eye is different from a glass lens because it is not symmetrical about an axis. It was Helmholtz who introduced the term monochromatic aberrations.

Tscherning (1894) designed an aberroscope using a grid shadowed on the retina. Gullstrand, in his contribution to the third edition of Helmholtz's *Treatise on Physiological Optics*, devoted three pages to Tscherning's aberroscope and he criticized it, so it went into disuse.

In 1949, Koomen, Tousey, and Scolnik, published a classic paper entitled "The Spherical Aberration of the Eye" in the *Journal of the Optical Society of America*. In 1956, Ivanoff did a classic study of spherical aberration, measuring it along a single meridian. In 1961, M.S. Smirnov measured the wave aberration of the eye. Other significant publications were by Barakat and Houston in 1966 in *Optica Acta* and by van Meeteren in 1974 in *Optica Acta*.

In 1968, Howard Howland's brother Bradford published the design of a crossed cylinder aberroscope in *Applied Optics* and used it to evaluate photographic lenses. Howard and Bradford Howland published papers from 1974 to 1977 in which they described a subjective method for the measurement of monochromatic aberrations of the eye. They had subjects compare the appearance of a grid to various patterns which represented different aberrations. They used Taylor polynomials to describe the results. They found coma to be more important in the human eye than previously known. Walsh, Charman, and Howland (1984) converted the subjective Howland and Howland subjective aberroscope into an objective one.

### **Chester Pheiffer and Lin Moore**

I enjoyed Stephens and Perrigin's article on caecanometry<sup>1</sup> in the last issue of *Hindsight* not only because it was a well-researched and nicely written paper, but also because I knew personally two of the people they discussed – Chester Pheiffer and Lin Moore.

Chester Harry Pheiffer (1921-1989) was the head of the optometry school at Northeastern State University in Tahlequah, Oklahoma, when I joined the faculty there in 1980. Pheiffer earned an A.B. degree from University of Louisville in 1943, M.A. and Ph.D. degrees from The Ohio State University in 1944 and 1949, and an O.D. from Southern College of Optometry in 1954.<sup>2</sup> His Ph.D. degree was in psychology. He was on the faculty of Southern College of Optometry from 1949 to 1954. Pheiffer served on the faculty at University of Houston from 1954 to 1979. He was Dean of the University of Houston College of Optometry from 1961 to 1978.<sup>3</sup> Pheiffer was president of the Association of Schools and Colleges of Optometry from 1971 to 1973, and editor of the *Journal of Optometric Education* from 1975 to 1978.<sup>3</sup> He was a long time member of the Optometric Historical Society and occasionally contributed to the pages of its

publications. Pheiffer was crippled by polio contracted when he was young, and later in life he suffered from post-polio syndrome.

In 1979, Pheiffer became founding Chairman of the Division of Optometry at Northeastern State University. When the school became a College of Optometry in 1981, he became its first Dean. He served as Dean of the school until his retirement in 1986. Pheiffer taught two courses at Northeastern State University. One of them, on the “role and scope of optometry,” had optometry history as a significant component. He also taught a course on Skeffington Optometric Extension Program case analysis procedures and theory. I always felt that Pheiffer was supportive of my teaching and research efforts, beginning with hiring me fresh out of my Ph.D. studies.

William Lindhard Moore (1924-2010) was born and raised in Muskogee, Oklahoma and subsequently practiced optometry there for nearly 50 years. He attended Muskogee Junior College briefly and then Southern College of Optometry, finishing his O.D. degree in 1944.<sup>4</sup> He served in the U.S. Navy from 1944 to 1946. After a year working with J.W. Wilk in Oklahoma City, he started his practice in Muskogee in 1947, continuing there to his retirement in 1996.<sup>4,5</sup>

Lin Moore practiced general optometry and did a lot of work in contact lenses and low vision. He taught low vision at Northeastern State University for several years. He was also an ocularist. I can recall him painting “blood vessels” on an artificial eye so that it would resemble the appearance of a patient’s existing eye. In the 1980s, he and his associate Candace Stewart were kind enough to allow me to collect data for research from their files.

### **Ukrainian Minstrels**

Anne Hasiuk, a staff member of the Indiana University School of Optometry, brought to my attention a book entitled *Ukrainian Minstrels: And the Blind Shall Sing* by Natalie Kononenko (ISBN-10: 0765601443; ISBN-13: 978-0765601445; 360 pages). It was published in 1998 by M.E. Sharpe, of Armonk, New York, as part of its Folklores and Folk Cultures of Eastern Europe series. It deals with a tradition that persons who were blind became minstrels. On pages 50 and 51, it is stated that: “Not all blind became minstrels. Those who did were apprenticed to a master performer and worked and studied with him an average of three to six years.” Pages 47 to 50 deal with causes of blindness in the minstrels. The most common cause in the nineteenth century was smallpox or scrofula before the age of ten, but other diseases, injury, and congenital blindness were also documented.

### **Atchison and Charman on geometrical and visual optics contributions of Thomas Young**

David A. Atchison, of the School of Optometry and Institute of Health and Biomedical Innovation at Queensland University of Technology in Brisbane, Australia, and W. Neil Charman, of the Faculty of Life Sciences at the University of Manchester in the United Kingdom, recently published on the contributions of Thomas Young in visual optics. Thomas Young (1773-1829) published significant papers on accommodation

and visual function, the trichromatic theory of color vision, and the wave nature of light in 1793, 1802, and 1804. Young's most comprehensive work on vision was his Bakerian lecture "On the mechanism of the eye," a 66 page paper published in 1801. It was this latter publication that Atchison and Charman discussed in 2010 in the *Journal of Vision*.<sup>6</sup>

Atchison and Charman noted that Young's 1801 paper is particularly well known for his work showing that the crystalline lens is the source of accommodation, for his design of his optometer, and for his measurement of his own astigmatism. The authors noted that Young's 1801 paper also dealt with several other areas of vision and optics, including measurement and calculation of ocular optical parameters, presbyopia, monochromatic aberrations, chromatic aberration, depth of focus, instrument accommodation, gradient index of the lens, peripheral vision, and some aspects of crystalline lens comparative anatomy.

The authors observed that many of the aspects of Young's 1801 paper have not received the attention they deserve. They concluded that Young's "studies remain relevant to many of the topics which currently engage visual scientists." They also noted that Helmholtz, Donders, and Tscherning were all great admirers of Thomas Young.

In another paper,<sup>7</sup> Atchison and Charman noted that James Clerk Maxwell is usually recognized as the first to write about optical systems with inhomogeneous media, but that Thomas Young had done some work in that area in his 1801 paper, decades before Maxwell's 1854 paper. Atchison and Charman found that Young's equations did not accurately describe the human crystalline lens, but they called his work "a bold attempt to approximate the characteristics of the lens."

In a third paper,<sup>8</sup> Atchison and Charman discussed Young's contributions to geometrical optics in his 1801 paper and in his 1807 *Course of Lectures on Natural Philosophy and the Mechanical Arts*. Young developed a geometrical construction method of representing spherical refraction and used it to establish various optics theorems. He did work on paraxial refraction, astigmatism of oblique incidence, and image curvature. The authors suggested that many of Young's ideas "made little impact on his contemporaries and it is only with hindsight that we can appreciate their significance." They quote Helmholtz as saying that Young was "one of the most acute men who ever lived, but had the misfortune to be too far in advance of his contemporaries. They looked on him with astonishment, but could not follow his bold speculations, and thus a mass of his most important thoughts remained buried and forgotten."

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# Book Review: Brief History of Vision and Ocular Medicine

**Brief History of Vision and Ocular Medicine. Wolfgang H. Vogel and Andreas Berke. Amsterdam: Wayenborgh, 2009. 262 pages. ISBN-13: 978-90-6299-220-1. ISBN-10: 90-6299-220-X. Softcover, \$67.50.**

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This book gives an overview of the history of the knowledge of vision and the practice of medicine of the eye. A rationale for the authors' approach is explained in the first three sentences of the introductory chapter: "The history and development of vision and ocular medicine over time always occurred within a framework of many other cultural events. Thus, it is important to understand these factors before one can appreciate how vision and ocular medicine were viewed and practiced at a particular time and in a particular region, and how both slowly progressed over the centuries. Ocular medicine is, and always has been, a part of medicine, and is influenced by its theoretical and practical principles, as well as its diagnostic and therapeutic practices." (page 1)

A second chapter speculates on aspects of general medicine in prehistoric times. The third chapter notes some of the difficulties in interpreting documents from ancient history. For example, information may have been transmitted orally for many years before being committed to written form, words may exist in one language but not another or their meanings may be misinterpreted, documents may be in fragmentary condition, and cultural environment may affect how writers record history.

The bulk of the book consists of eleven chapters, each devoted to a separate civilization. Those civilizations are Ancient Mesopotamia, Ancient India, Ancient Egypt, Ancient China, Ancient Greece, Ancient Rome, Early Medieval Ages, Medieval Islamic Medicine, The Renaissance, Early Modern Times, and Western Modern Times. Within each chapter, the authors provide a brief discussion of the political, social, religious, and scientific history of each culture. That is followed by brief descriptions of general medicine, knowledge of vision, and theory and practice of ocular medicine for each time and place.

Such a comprehensive approach within the number of pages utilized limits the depth of the presentation, but the book does give an interesting overview. One effective approach used throughout the book is the use of quotations from original documents. This was done particularly in the Early Medieval Ages chapter, where there are numerous quotations from Roger Bacon, Peter of Spain (Petrus Hispanus), Guy de Chauliac, Benvenutus Grassus, Robert Grosseteste, and others. Weaknesses of the

book are lack of reference citations and lack of an index. The book contains more than 80 black and white illustrations, including diagrams, photographs, drawings, and reproductions of paintings. A four page list of references and a three and a half page glossary close out the book.

# Optometric Historical Society Bylaws

The following are the by-laws of the Optometric Historical Society as recorded in the January, 1970 issue of the *Newsletter of the Optometric Historical Society* (volume 1, number 1, pages 2-5) with the amendments reported in:

- (1) the July, 1985 issue of the *Newsletter of the Optometric Historical Society* (volume 16, number 3, page 39),
- (2) the April, 1986 issue of the *Newsletter of the Optometric Historical Society* (volume 17, number 2, page 15),
- (3) the January, 2007 issue of *Hindsight: Journal of Optometry History* (volume 38, number 1, page 2), and
- (4) the January, 2011 issue of *Hindsight: Journal of Optometry History* (volume 42, number 1, page 2).

## Article I. NAME

The name of this society shall be The Optometric Historical Society.

## Article II. OBJECT

The purposes of this society 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 have 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 this society.

## Article III. MEMBERS

Section 1. Membership in the society shall be open to any person interested in the purposes of the society. Whenever the dues are paid in the name of an agency, organization, or institution, a personal designee of the paying entity shall be identified as a member of the society.

Section 2. Fellowship in the society shall be open to any member who, upon majority election by the Executive Board, has made significant contribution toward the goals of the society by means of publication, collection, administration, gifts, or equivalent actions.

Section 3. Honorary Membership, requiring no payment of dues, shall be open to any person, who, upon majority, and annually reconsidered, election by the Executive Board, deserves special recognition or consideration.

Section 4. The dues in this society shall be \$25.00 per calendar year for regular membership, \$50.00 per calendar year for patron membership, and \$250.00 for a lifetime membership.

Section 5. Members and Fellows whose dues are paid for the current year, and Honorary Members, have full membership voting privileges in the election of members of the Executive Board, and on such issues and items of business as shall be submitted to them by the Executive Board or by petition of at least five Members or Fellows. The majority of those voting on any issue or ballot shall prevail as the governing decision except that the Executive Board may act in the role of governing body on all matters not otherwise provided for herein and not in a manner contrary to duly processed decisions of the membership.

Section 6. Membership and Fellowship shall be canceled automatically for nonpayment of dues.

Section 7. Election to the Executive Board shall automatically qualify the Member for Fellowship.

#### Article IV. EXECUTIVE BOARD

Section 1. The Executive Board shall consist of nine members, each to be elected by the membership for a four year term. The number to be elected each year for four-year terms shall be the number necessary to replace the board member or board members whose term or terms are due to expire as defined at their respective time or times of election. Vacancies of unexpired terms shall be filled by the election of a replacement by a majority of the remaining members of the Executive Board. Membership on the Board shall be terminated automatically with delinquency in society membership dues.

Section 2. Election to membership on the Executive Board shall be preceded by the nomination of each candidate by at least three members and the willingness of each nominee to have his name placed on the ballot. Election shall be by mail ballot, and, when more than two nominees are on the ballot, the voting members should rank their choices so that the winner may be determined by the Hare system in terms of the majority of members voting.

Section 3. The election shall be held early in November of each year and the ballots counted early in December.

Section 4. The Executive Board shall elect from among themselves a President, a Vice President, a Secretary, and a Treasurer, and the remaining members of the Executive Board shall be designated Trustees.

Section 5. The Executive Board shall adopt regulatory procedures suitable for the conduct of its business.

## Article V. MEETINGS

Meetings of the society shall be at the discretion of the Executive Board or upon vote of the membership as provided for in Article III, section 5, by mail ballot unless otherwise provided for by prior action.

## Article VI. COMMITTEES

The creation and appointment of committees shall be by action of the Executive Board unless otherwise provided for by voting actions of the membership.

## Article VII. PARLIAMENTARY AUTHORITY

The rules and guidelines contained in Robert's Rules of Order shall govern the society in all cases to which they are applicable and in which they are not inconsistent with the by-laws or the special rules of order of this society.

## Article VIII. AMENDMENTS

The by-laws may be amended by a majority vote of members responding in a mail ballot as provided for in Article III, section 5.

## Article IX. FISCAL MATTERS

The society may engage in whatever business activities it deems to be appropriate to its purposes and in compliance with federal and state laws relating to not-for-profit organization eligible for tax exemptions and for the receiving of contributions and gifts which the donors may declare as deductible for income tax purposes.

## Article X.

These by-laws are hereby adopted by the undersigned who will assume mutually approved initial membership on the Executive Board for the periods indicated: for the term expiring December 31, 1970, Maria Dablemont; December 31, 1971, Arthur E. Hoare; December 31, 1972, Sol Tannebaum; December 31, 1973, John R. Levene; December 31, 1974, Henry W Hofstetter.