NEWSLETTER
OF THE
OPTOMETRIC HISTORICAL SOCIETY
(7000 Chippewa Street, Saint Louis, Missouri, U. S. A. 63119)

Volume 3 July 1972 Number 3

Election again:

Our by-laws state "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."

The board member whose term expires this year, Dec. 31, 1972, is Sol Tannebaum. Nominations for his replacement or continuation for a five year term are hereby requested.

Election ballots will go out with the October issue of the Newsletter.

How big ought we be?

In the latest annual report of the long established and venerable Indiana Historical Society the executive secretary discussed what "the reasonable or optimum membership" should be. For years this very active society has averaged something under a quarter of one per cent of the adult population of the state. He suggests that "one in a hundred from the adult population" might be a more appropriate goal.

The membership of O.H.S., less than three years old, is 55. This, for optometry, slightly betters the Hoosier statistic, but about 170 would put us in the 1% bracket.

Indeed, we want members, not membership. We want to be sure to include every optometrist and every friend of optometry who has a "feel" for history, an awareness and an interest in the past as a significant factor in the present and future. He is easy to identify. He should be told about the O.H.S., not recruited. He should be told that joining is simple, that all that is necessary is his name and address and his five dollars.

Secretary-Treasurer reports:

As of May 26 O.H.S. had a total of $453.06 in funds, with an encumbrance of about $140.00 for the printing of 1,000 adhesive labels and an undetermined amount for coffee, cookies, and incidentals for the REMINISCE-IN held in St. Louis on June 20.

Details on the very successful REMINISCE-IN will be reported in our next issue.

Five samples of the adhesive labels are enclosed for your use. More are available on request. The purpose of the legend on the

labels should be self-evident. Merely apply one of these labels to each item of historical significance in your possession which should eventually be delivered to your favorite museum or archives. Do it now. Remember, time has only one attribute, - - - it runs out. Tempus fugit!

The following are new members since the last issue of the O.H.S. Newsletter:

Mr. Earl R. Dablemont, Apt. 210, 7009 Weil Avenue, St. Louis, Missouri 63115

Miss Susan Hofstetter, 2030 Scott Avenue, San Francisco, California 94115

Library, State College of Optometry, State University of New York, 122 East 25th Street, New York, New York 10010

Mr. M. J. Revell, Brandon Hall, Fen Lane, Bulphan, Apminster, Essex, England

More memorials:

This quarter brought only two more memorials to our attention, one to an optometrist, Dr. Griffith, and the other to a friend of optometry, Harold Kohn, Esq.:

The Clarence Ceymour Griffith, II, Binocular Visual Anomalies Clinic (Reference: Optometric Institute and Clinics of Detroit, Inc., Detroit, Michigan).

The Harold Kohn Visual Science Library (Reference: State College of Optometry, State University of New York).

A Memorial down under:

The Waterworth Memorial Lecture caught my eye in the Optometry Section of the annual program of ANZAAS (Australian and New Zealand Association for the Advancement of Science) last year. My query to Mr. M. J. Watson, Federal Director of the Australian Optometrical Association, brought the information that the funds for this annual memorial lecture are provided by his association. The following paragraphs from Max Watson's letter of May 24 tell the fascinating story:

"Your letter which was on my desk when I arrived, reminded me to contact Waterworth in Tasmania in order to find out whatever I could about the history of Newham Waterworth, the man whose memory is honoured in the Waterworth Memorial Lecture. In this way I have found the following material which may be of interest to you.

"Newham Waterworth was born in England around about 1870 and migrated with his parents, four brothers and a sister to Australia in 1890. His father was a carpenter and his mother a chronic invalid. The family were exceedingly impoverished, so much so that the children were only able to receive a very elementary education. It did not extend to specific education in any trade or profession.

"The four brothers and sister as well as father, exhibited one characteristic however, and that was a characteristic of industry and determination.

"Newham Waterworth managed to become an apprentice cutter in a tailor's establishment, and for some years made his living in this manner. Quite by accident, he found that he was an accomplished if untaught, hypnotist, and being somewhat tired of the life as a tailor's cutter and its low income, set himself up in the City of Brisbane as a hypnotist using hypnosis as a therapy in nervous disorders. In this way, Waterworth made quite a name and reputation for himself in Brisbane.

"Around about this time, he met and married a Queensland school teacher. They honeymooned in Tasmania, and the new Mrs. Waterworth fell in love with the city of Hobart. Waterworth and his wife never returned to Brisbane from that honeymoon, but settled in Hobart.

"Newham Waterworth and his brother Edward, managed to obtain some very rudimentary training in the field of Optics. It is not now possible to say exactly where they received this training, but it is thought most likely that it came at the hands of itinerant Optometrists visiting Tasmania from the Australian mainland. Armed with this somewhat rudimentary knowledge, Newham set up in the practice of Optometry in Hobart, whilst brother Edward established a practice in Launceston. Edward Waterworth hardly seems to have ruffled the surface of Optometric history and no-one really knows anything about him or his Launceston practice.

"Newham on the other hand, rapidly built up a very large following in and around the city of Hobart. He acquired by methods common in those days, an increasing level of Optometric education, and perhaps was one of the first people in Australian Optics, to acquire the vision glorious of what may become the Optometric profession. He also became somewhat irate at the activities of what he termed unscrupulous men from the mainland, who with about the same level of Optometric education as he had, were exploiting the people of Tasmania. Newham Waterworth in a very determined and characteristic manner, set out to see what could be done in order to stop these unscrupulous men and their activities.

"He found that the only logical way to approach the situation was to persuade the Parliament of Tasmania, to pass an Act of Parliament regularising the practice of Optometry. Having reached this conclusion, he enlisted the support of other resident Optometrists located in Tasmania. With their efforts and a great deal of personal involvement on the part of Waterworth, the Tasmanian Government in 1913, passed the first Optometry Registration Act in the British Empire.

"For 30 years after the passing of that Act in 1913, Waterworth acted as Registrar of the Tasmanian Optometry Board. He provided a great deal of the drive and energy that was necessary to ensure that the Board appointed under the Act, did a proper job. He is accredited with much of the responsibility for the forward thinking exhibited in

the regulations of the Tasmanian Act which has controlled advertising and prevented the commercialisation of Optometry in Tasmania.

"Newham Waterworth achieved his place in the Australian Optometry's Hall of Fame almost exclusively for the work he did firstly as the driving force in the enactment of the Optometry regulations in Tasmania, and secondly, in the capacity of Registrar as the guiding hand for 30 years on Optometric legislation.

"I suppose it can be said that in the British Empire at least, if not in the English speaking world as a whole, that Newham Waterworth started the ball rolling and set about a chain of events which has resulted in legal recognition and regulation of the practice of Optometry.

"I do hope Hank that this material will be of interest and value to you. Unfortunately we in Australia and particularly in Optometry, have not been very diligent about preserving our history. Even Waterworth's son seems to have but a very faded memory of what his father achieved in his lifetime. Waterworth's son by the way is Philip Waterworth, F.B.O.A., F.S.M.C., who was registered in Tasmania in 1930, and is currently the senior partner of a three man practice in the city of Hobart."

Pacheco-Neill feud:

O.H.S. member Antonio Pacheco of Puerto Rico sent me copies of correspondence between him and Dr. John C. Neill of Philadelphia in which they attempted to outdo each other in "total family years in optometric service." The Pacheco family has racked up a total of 133 years in three generations involving Tony, his father, an uncle, a brother, and a nephew. The Neill family has accumulated 153 years in three generations involving Jack, his father, and grandfather. However, Jack is now alone adding only one year per annum to the Neill score, while the three living Pachecos are now adding three years per annum. In fact, Tony has both a son and a nephew studying optometry, so the Pacheco rate of addition will soon be five years per annum!

Jack reports that his own sons are not optometrists, but that one of his grandsons may carry the optometric flag.

Obviously, the race is not over!

Aside from the arithmetical aspects of this very vital contest the correspondence shows tremendous contributions by both families in their various roles in the organizational development of the profession.

Any optometric family that can beat their records, or that may be in the race, is invited to submit the information for the Newsletter.

24 hours of daylight:

From 8,300 miles away by the great circle route came an application for O.H.S. membership from Dr. N. B. Shetty, 7-E, Gunbow Street, Fort, Bombay, India. His letterhead identifies him as optometrist and

contact lens practitioner and as Hon. Gen. Secretary of the All India Contact Lens Practitioners Association.

With his membership we, too, can claim that the sun never sets on our society membership!

Optical Philately:

"The interesting field of topical stamp collecting" is the title of a brief article on stamps that portray optical science in its various phases. Color reproduction of 35 stamps include not only famous people shown wearing glasses but microscopes, telescopes, and famous men who have contributed to optical science. Says the anonymous author, "As yet, there are no great rarities among stamps devoted to optics, although some can cost as much as ten dollars each even now."

The article appeared in Bausch & Lomb Today, Vol. 16, No. 1, April 1972, pp. 22-25.

For the record:

Recently I came across some correspondence with Herbert J. Welch, an early Hoosier optometrist who, were he still living, would have been 100 years old last April 14. He almost made it, having relinquished his license on his 90th birthday to enjoy a few years of retirement. He felt he had earned them on the basis of an estimated 100,000 refractions!

The Indiana Optometric Association records do not show that Dr. Welch was ever a member, nor is there apparent any special claim to fame or even intraprofessional stature. It may well be guessed that he was a rather ordinary representative of early pioneer optometry. Hence two of his longhand letters, reproducted here in full detail, serve as an early inside view completely unembellished by anyone's efforts to touch up the details.

"103 East Pontiac St.
Ft. Wayne, Indiana
March 26 57

"H.W. Hofstetter O.D.
Instructor in Optics
Bloomington, Ind.

"Dear Mr. Hofstetter

"Your letter of March 21 in regard to my letter was received last Sat. Yes, it is gratifying to an Optometrist that has fitted a large number of glasses, that he has helped so many to see better what they have been required to do. No way of telling what amount of good he has done by his skill & labor-

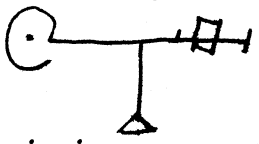
"My Father came to the U.S. with his parents when about 12 years old and they settled near Syracuse, N.Y. Salt had just been discovered

and Father worked as a cooper making salt barrels for several years. Later came west, located around Logansport, and when Pres. Lincoln called for volenters Father enlisted and went clear through the Civil War. After his discharge in 1866 or 67 he bought an 80 acre farm (all prairie grass) 2 miles east of Goodland, Ind. (now one of the best improved farms.) and while he was very much machanical He spent most of his life on the farm. (No machanical jobs to be had at that time) He built a small house (later made larger, now a modern home) and got married and raised 3 sons of which I was No 2. All were machanical. It was about that time they changed running the threshing machine from the old horse power to the steam engine. I became much taken up with the steam engine. While about 13 from a book I had, I decided I could make one which I did at the age of 15 A druggist in Goodland said he thought I was so machanical I would make a good watch maker. I fell for the idea & went to Parson's about the only school of that kind at that time After a course in Watch work and Hand Engraving, I was told that most all glasses were sold through Jewelry stores, and I should learn how to do that , also. When I came home I started a department in Humsten's Drug store in Goodland March 16th 1892 a few years later I bought the Jewelry store in Remington and later 21 years in Wabash with a store and in 1925 I moved to Ft. Wayne and have had an Optical Office ever since here. After I got my watch makers tools I made several nice models of steam engines. One (with a slide valve) that sets in a base 1/2 inch by 1 5/8 inches of a saw mill design, I consider is the smallest steam engine ever built of its kind.

"On my diploma is a nice picture of Parsons school. However I am still using it and it hangs in my office I could copy what it says for you or perhaps it could be photographed. It is signed 'J. R. Parsons Principal' and 'John W. Lambert M.D. Instructor in Optical Scicences'

"I have a photograph 6 1/2 x 9 inches of 30 people most 'watch maker' students Including Mr. Holms instructor in Engraving. Mr. Hood instructor in Watch work and my self when about 19 years old. (John Lambert not in the picture, and I don't have his picture) however J. R. Parsons at the end of the picutre which I could cut off and send to you as I don't need it, or perhaps the picture could be photographed for you I have 11 Pages (8 x 12 inches) copy of the instructions given me by Prof Lambert, describing the eye and lenses & frames, and how to examine eyes and fit glasses etc, which I can do with out and you could have. It is written in ink and quite good condition (made in 1891)

"I also have 2 small books about 5 1/2 x 7 1/2 inches that you could have also One Practical Optics for beginers Illustrated 'by Charles N. McCormick Instructor in McCormick College Chicage 1895' The other 'New Methods in the science of the Fitting of Glasses by W.G. Fay. Optician Springfield, O. 1896' One paragraph in the Preface of Fah's Book reads thus- * 'science of Fitting glasses and to explain my new methods of measuring and correcting all errors of refraction from a distance of (14) fourteen inches instead of twenty feet.' Also I believe he puts most stress on Fay's Optimeter' I remember I had &

used one but done away with the use of it years ago.
little like this stand, has with  thru slot at hole
figures on it with lens to move at small print at
back & forth while Person looks other end.

"I believe Parsons in the beginning was a watch repair man who had a number of calls to teach young men the trade, that led him to start a school for that purpcse. I believe it was only 1 or two years after I left the school say 1893 or 4 that Mr Parsons moved his school to Peoria, Ill. into an old watch factory building (I think they made the Peoria or Aoria watch) and discontinued.) He, I believe formed a partnership with 'Miss Ide' (who had money) and it became know as 'Parsons Ide & Co watch maker's school.' Later I believe Mr Parsons and a Mr Bradley took over and it became the 'Bradley Politectical school'

"Well this is all for now

"With regard I am

Very truly

Herbert J. Welch"

"I am still using the old trial case of lenses I bought in the beginning with the plate glass lid, consisting of

33 pairs + spheres
33 " - "
20 " + Cylinders
20 " - "
a number of Prisoms etc.
and have retinascope etc

"'Dioptra' is also shown in inch systems the trial case made by F A Hardy & Co of Chicagp later taken over by American Opt. Co."

"103 East Pontiac St.
Ft. Wayne, Ind.
Mar 16 1957

"Dear Doctor

"Will just mention it, as I think of the date. It was just 65 years ago to day that I started in business (for my self) I had just arrived home from attending 'Parsons Horological Institute, at La Porte, Ind.

"I had taken courses in Watch work, Hand Engraving, and Examining eyes and Fitting Glasses. My optical diploma is dated Nov. 13 1891.

"There were no optical schools at that time and no laws nor requirements. Many pedlers traveled thru the country selling 'spects' to those that could see better by just trying them on. I have enjoyed my lifes' work and have helped many thousands of people to see better.

"Very truly

"H. J. Welch O.D."

Visual science history:

The documentation of contributions of optometry to visual science was an assignment made recently to some of the staff of the American Optometric Association in compliance with a request coming out of one of the federal government agencies. Maria Dablemont, of course, did yeoman service gathering the information. An interesting little gem she picked up was the following quote from A. Jay Cross in a paper he gave at the meeting of the Optical Society of the State of New York on June 8, 1897.

"Next to plastic glass, or a jelly like refractive substance that would be practical for optical purposes, might come a material that would be the equal of our own present glass, only more durable, or less liable to crack or shatter. Lenses could then be made thinner, lighter in weight and more inconspicuous, than those we now use. The specific gravity of glass being greater than that of some metals, possibly an improvement could be made in the form of lenses, so as to avoid the great weight now incident to those of high power."

The title of his paper was, "Individual Research in Theoretical and Applied Optics," in The Optical Journal, Vol. 3, No. 6, August 1897, pp. 297-298.

This little gem points up the utter elusiveness of credit identification for contributions in science. In the military, where the actions of each soldier are most methodically observed and recorded, a Private may be responsible for execution of a crucial tactic, but the General wins the battle. In a football game, where the critical observers, analysts, and cameras outnumber the players, the single action of a lineman may be responsible for the success of a play, but the quarterback carries the ball over the goal line and the coach wins an extension of his contract. Even in the field of education with its thorough system of grades, registrars, and transcripts, a teacher may be the lifelong inspiration of a pupil, but it is the pupil who becomes President. Now, science simply does not have a bookkeeping system for keeping track of the ideas and concepts that emerge from endless discussions and seminars or even from the exchanges and sharing of observations and ideas in the laboratory. Who knows who really invented spectacles? Or who was initially responsible for a scientific advancement announced by a major corporation? How many of us realize that the accommodation-convergence concepts attributed to Donders were based on research by his student MacGillavry? Or what assistants MacGillavry may have had? That Emmert's law did not originate with Emmert? That

the Pulfrich effect was never seen by Pulfrich? That the Panoptic bifocal was invented, and patented, by James Hammon? That the adjustable hospital bed was designed by a machine shop employee rather than by the Dean who held the patent? That a graph of clinical optometric data routinely credited to Charles Sheard was originally published by Frank Weymouth? And even that the oath of Hippocrates probably was not written by Hippocrates.

In fact, most of the readers of this Newsletter undoubtedly think that the formation of the Optometric Historical Society was my idea. It was not. Further, if I name the person who proposed the idea to me, she would undoubtedly declare that someone else gave her the idea, and perhaps correctly!

So, how does one document optometry's contributions to visual science? Like the searcher for the fountain of youth and for the Holy Grail the endeavor will long continue and the serendipitous discoveries en route will be the rewards.

A visual science chronology:

The April 15, 1969, issue of Süddeutsche Optikerzeitung, (Vol. 24, No. 4, pp. 234 passim) began a remarkable series of articles under the title of "Zur Geschichte der Sehlehre" by Werner Rentzsch of Vienna. In the brief introduction recognition is given to the origins of visual science in Physics, Chemistry, Anatomy, Physiology, and Psychology, with examples. The last quarter of the 16th century is described as the beginning of the mutually complementary roles of "Optologie" and "Ophthalmologie" in the subsequent developments of visual science. Apparently for that reason the author began his chronology with year 1575, the date of publication of "Photismi de Lumine" by Franciscus Maurolycus. Then follow the years 1583, 1597, 1600, 1601, etc. with brief descriptive entries of successive scientific contributions.

Installments follow in subsequent issues, with the series still continuing as of May 1972 (Vol. 27, No. 5), which brings the chronology to year 1834. The citation references already total 273!

Long live Werner Rentzsch! Unfortunately I have no information about him, but I hope to make contact with him through a friend in Austria.

Earliest lenses?

O.H.S. member Earl J. Hunt sent in a one-page clipping of an article from The Bausch & Lomb Magazine, Vol. 30, No. 1, September 1953, p. 21, entitled "Lenses . . . 300 B.C." To quote, "Near the North African city of Tunis, in a white building on top of a gently sloped but commanding hill, several lenses believed to be the oldest in the world are on display." The hill, for many centuries known as the Byrsa, is the original site of ancient Carthage. The lenses,

believed to date between 300 and 400 B.C., are in the Lavigerie Museum of the White Fathers of the Desert.

Eight of the lenses are glass. The other two are polished rock crystal, all roughly circular with definite convex surfaces. They range from about 1 1/4" to 3/4" in diameter. A photograph of the 10 lenses in true size is included in the article.

Getman "Mileposts":

In an article entitled "The Mileposts to Maturity," G. N. Getman, O.D., has described personalities and incidents in his own career which relate to the evolution of "visual development philosophy." His "Milepost #1" dates back to the middle 1930's. His "Milepost #7" is identified largely with the 1960's.

The article appeared in the April 6, 1972, issue of the Optometric Weekly, Vol. 63, no. 14, pp. 321-331.

It is and it was:

O.H.S. Trustee Sol Tannebaum wrote an interesting historical account in the April 1972 issue of the Journal of the American Optometric Association, Vol. 43, No. 4, pp. 443-451 under the title of "The Puzzle of our Optometric Past." The theme of his analysis is stated in what appears to be a typographically garbled sentence, as follows:

"The pieces of our puzzle, then, clearly indicate the separate development of optics and optometry and parallel the development of medicine -- as unique a discipline and as old as medicine itself."

Some time ago Dr. Meredith Morgan, if my memory serves me correctly, paraphrased Gertrude Stein by saying "Optometry is optometry is optometry is optometry . . . " In effect, Dr. Tannebaum now says, "Optometry was optometry was optometry was optometry was optometry" all the time.

Advertising history:

One of my students, Mr. Donald Simpson, wrote a paper entitled "Advertising and Optometry" for my Optometric History course. He chose for comparative purposes the optical advertisements in four one-week periods, August 24-31, in 1904, 1929, 1954, and 1971 editions of the Indianapolis Star. To him 1904 appeared to be "the golden age of cure-alls." The 1929 emphasis was on "glamour." The 1954 come-on was "price." The 1971 advertisements played up contact lenses, and fewer advertisers. The column-inch totals remained about the same for 1929, 1954, and 1971.

About stereograms:

The first random-dot texture stereogram was made in 1954 by Claus M. Aschenbrenner, a photogrammetrist, according to T. Shipley in a

letter to the editors of Vision Research, Vol. 11, No. 12, December 1971, pp. 1491-1492.

The principle and a technique of generating stereograms without meaningful monocular contours were well described by Mach in 1866, Dr. Shipley also points out.

Motion-picture involvement:

"In 1898 Sigmund Lubin, a Philadelphia optician, started a studio for making motion pictures on the roof of a Philadelphia business building and a year later opened at Seventh and Market streets what seems to have been the first motion-picture theatre in the United States. For a long while the Lubin Studios were a feature of Philadelphia, until California beckoned them."

So said Struthers Burt on page 154 of his 1945 book "Philadelphia, Holy Experiment," Rich & Cowan, London.

This little historical gem was picked up by Mr. Earl Dablemont, Maria's husband. Maria hopes to get more details from the Philadelphia State Archives and Historical Society.

Sigmund Lubin is listed as an optometrist in several early editions of the Blue Book of Optometrists and Opticians.

Optical aids to art:

Historically the use of magnifiers, drawing machines, cameras, and even spectacles has played a significant role for the artist, even to the point of influencing the character of his work. This was delightfully and informatively discussed a quarter of a century ago in an article entitled "The Photographic Eye" by A. Hyatt Mayor in The (New York, city) Metropolitan Museum of Art Bulletin, New series vol. 5, No. 1, Summer 1946, pp. 15-26.

Strange places for visual science:

While perusing a 1970 book intriguingly entitled Optical Properties of the Sea, by Jerome Williams and published by the U.S. Naval Institute, Annapolis, I came across the term "Gershun tube" in the discussion of photometry, and it was mentioned several times with the same casualness we optometrists employ when we say diopter or myopia. After a futile search via the library catalog and a couple of computer-processed information retrieval systems I wrote directly to the author. His delightfully informative reply took me to the Journal of Mathematics and Physics (less than two blocks away!) volume 18, 1939, to an article entitled "The Light Field" by A. Gershun, translated from the Russian by Parry Moon and Gregory Timoshenko, pp. 51-151. The original Russian book, apparently of the same title as the translated article, was published by Svetovoe Pole, Moscow, in 1936. Gershun, variously spelled Gerschun, was a Professor at State Optical Institute, Leningrad.

The 100 page article is an extremely sophisticated and comprehensive analysis of the principles of illumination.

The Gershun tube, incidentally, is merely a long cylindrical tube of opaque material blackened on the inside so that as diffused light enters one end the amount of light emerging at the other end, where a photocell may be placed, is a function of length and diameter.

Woops again!

"Andrew" was misspelled "Andress" on page 19 of the last issue, seventh line from the bottom of the page. If you will merely ink the correction on your copy you will have one of the few perfect issues of the Newsletter in existence.

At least the error proved to me that somebody reads this!

* * * * * *

H. W. Hofstetter, Editor