

NEWSLETTER
OF THE

OPTOMETRIC HISTORICAL SOCIETY

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INDIANA UNIVERSITY

With mixed emotions:

Mixed emotions were expressed by two of the voting members because both candidates, Jerry Abrams and Maria Dablemont, were such excellent nominees for membership on the Executive Board of the Optometric Historical Society. The voting was extremely light this year, in fact only 26, which may have reflected the same frustration by others, or perhaps the disbelief that the address for your "scrutineer" (a bit British for ballot counter), namely I, was really Waterloo, Canada. Or perhaps many of you did not know that postage to Canada from the U.S.A. is the same as for domestic first class mail. Whatever the explanation, Maria Dablemont won handily, though Jerry received a significant number, which should encourage him to allow his name in nomination in a future year.

The members of the new Executive Board, with years of expiration in parentheses, are as follows:

- Grace Weiner (1981)
- James Leeds (1982)
- James Tumblin (1983)
- Henry Knoll (1984)
- Maria Dablemont (1985)

A group of distinguished persons, indeed!

The election of officers by the members of the Board is taking place presently and will be announced in the next issue.

About the next issue or two or three:

Both of your editors, functioning somewhat alternately with recent issues, are substantially displaced from Bloomington, Indiana, for a good many moons. Doug Penisten has taken a faculty position at the University of the North in South Africa, where his residence address is D.K. Penisten, O.D., Casa Renard Flats, Flat 209, Schoeman Street, 0700 Pietersburg, Republic of South Africa. He would appreciate any correspondence that we can spare, and he will try to contribute an occasional item or two for the newsletter during the coming year or more.

I, Henry Hofstetter, editor of the moment, will be enroute to San Juan, Puerto Rico, before this issue gets mailed, where I shall assume the role of Acting Dean of the new School of Optometry at the Inter American University of Puerto Rico, G.P.O. Box 3255, San Juan, Puerto Rico 00936. I expect to remain there through September where my residence address will be La Arboleda Condominium, Apt. 1203, Guaynabo, Puerto Rico 00657, telephone 809-783-0774. However, all first class mail addressed to me at my permanent residence at 2615 Windermere Woods Drive, Bloomington, Indiana 47401 will be forwarded to me by the post office. The mail addressed to me at the Indiana University School of Optometry, Bloomington, Indiana 47405 will also be forwarded to me periodically.

In some way or other, Doug and I will attempt to prepare copy for the April, July, and October issues of this quarterly newsletter, but they may be quite limited in content unless you send us bits of material to digest or comment upon.

Another reminisce-in:

A telephone call from O.H.S. Secretary-Treasurer Maria Dablemont provided a hasty enthusiastic report of the one-hour reminisce-in held in Chicago in December at the time of the American Academy of Optometry. Twenty five signed an attendance sheet. Dr. Henry Knoll gave a brief preview of a contact lens history paper which he is preparing. Mrs. Dablemont described the financial status of the Optometric Historical Society, with a balance of \$2,285.20, a tidy sum considering the costs of mailing the newsletter to many overseas members. Dr. James Leeds reported his attempt to extract some of the history of optometry from literature resumés in his collection of early and rare books. The following paragraphs are from his notes.

The Year Book Publishers of Chicago have printed a yearly resumé of the various specialties of medicine from 1901 to the present, possibly prior to 1901. The last one I checked, for 1977, listed 22 specialties, 21 medical and one for dentistry. What is printed is a resumé of the important developments of that year to keep the practitioner up to date.

There have been three titles for the eye, the first two almost the same. 1901-1933 it was called "The Eye, Ear, Nose & Throat". 1934-1957 it was called "The Eye, Ear, Nose & Throat Yearbook". 1958-Present it was called "Yearbook of Ophthalmology". From 1901-1933, it was Vol. III of a series of 8-10 or so books, the others for various specialties. It has the title of "The Practical Medicine Series of Yearbooks, Comprising 10 volumes (8 in 1930) of The Year's Progress in Medicine & Surgery, issued monthly. Apparently EENT came out in March.

There have been very few editors over the years:

1901-1919 Casey A. Wood

1920-1924 Casey A. Wood and Charles H. Small

1925-1930 Charles H. Small

1931-1939 E.V.L. Brown & Louis Bothman

1940-1948 Louis Bothman

1949-1958 Derrick Vail

1959-Present William F. Hughes

I wanted to see how many references to optometry were in the books. I have a complete set (except for 1904, 1909 & 1972) from 1901-1977 and went through each yearly book. I checked only those sections where I felt such listings might be found. Up to 1930, there were sections on: Examination of the Eye; Color Sense & Color Blindness; Refraction; Amblyopia & Its Treatment; Hygiene of the Eye; & New Instruments (none ever invented by an O.D.). With the editorship of Drs. Brown and Bothman in 1931, there was one section on "Refraction & Muscles." In the 1950's it was "Refraction & Motility". From 1969 on, there were two sections: "Motility" & "Vision, Refraction & Contact Lenses". Of course there were sections on pathology--cornea, iris, etc.--that I did not check.

For all practical purposes, to the Year Book Publishers, Optometry does not exist. Where there was an occasional reference, never was that individual identified as an optometrist. Possibly I missed some, such as the McKay-Marg tonometer under a Glaucoma Section, but I restricted myself to those sections I mentioned.

It is regrettable that genuine optometric contributions to ophthalmic science have been ignored. There is no mention of Subnormal Vision, much less William Feinbloom. There is no mention of any optometrist in the development of contact lenses. I have heard ophthalmologists praise the Robinson Cohen slide. Perhaps they wouldn't be so effusive if they knew it was developed by an optometrist. The list is endless.

Being realistic, I found what I thought I would find. I was hoping for something better. Too bad I did not find it.

Dr. Leeds's little survey illustrates well the need for optometry to search out and document its own history. That is a primary reason for the existence of this society.

A bit of amusing musing:

Temporarily occupying the office of Professor W.S. Long of the University of Waterloo while he was on sabbatical leave and I a visiting professor there, I rummaged a bit furtively through his bookshelf and spotted an old small book which, I believe, I had never seen before. It is entitled "SQUINT, Its Etiology, Diagnosis and Treatment" by Morgan C. Davies, B.Sc. in Applied Optics, Instructor in Applied Optics, The Ohio State University, Columbus, Ohio, Copyright 1926 by American Optometric Association, Inc.

A page entitled EDITOR'S NOTE is authored by H. Riley Spitler, Editor, in which he stated, "It has been several years since Dr. Todd compiled the original set of A.O.A. study courses". He further added, "This little volume, concise and yet complete, is an effort to deliver to optometrists a text on one of the subjects for which a demand has

been demonstrated". In his explanation of the selection of Morgan C. Davies to prepare the text he gave as one factor "his connections with the University, even back to the time when the illustrious Sheard was head of the Department of Applied Optics".

In the FOREWORD author Davies advised, "In this monograph, the writer has attempted to include all that is essential in the optometric treatment of squint." He explained that "the standard texts have been freely consulted" but that "Most.....is the result of ten years' experience in clinical experimentation".

Under "Prisms" he declared, "Prisms have no place in the treatment of concomitant squint...If the eyes have enough fusion to straighten when a nearly full prism is applied, there would have been no squint".

Under "Selection of cases" he reported, "True alternating squint cannot be cured." and "Divergent squint due to causes other than myopia require operation".

A blue ink inscription on the title page of the 34 page hard-cover book indicates that its one-time owner was "Clifford A. Taylor, U.E., D. Sc., Oph.D., F.A.A.O., F.A.A.A.Sc., F.R.C.Sc.", and a penciled notation on the inside cover suggests that someone paid \$3.50 for the book.

Why did I find this book so fascinating, aside from the fact that I did not recall ever having seen it before? It happens that I had met both Dr. Davies and Dr. Spitler on one or more occasions during the late '30's and early 40's while I was at The Ohio State University, and I also had heard much about both of them through various colleagues. Davies had entered medicine very shortly after writing this booklet and was practicing ophthalmology in Columbus at the time I was at the university. Spitler headed the so-called College of Syntonic Optometry at Eaton, Ohio, and, if my memory is clear, identified himself as having a Ph.D. degree.

I have a strange notion that therein is woven a tale indeed!

About the Waterloo collection:

Museums can have a stolid, heavy appearance or a touch of tasteful style. They can seem like determined attempts to give orderly geometric arrangement to unavoidably happenstance accumulations of historically surviving objects and specimens, or they can give a seemingly casual but nevertheless artfully arrayed appearance with only a subtly logical composition. The difference is not unlike that of the skillfully arranged flowers in a lovely home compared to the amassed display at a wholesale floral shop.

Among the various functions of a museum are the two very important ones of preserving the ~~item~~ items of archival value and of cultivating a more meaningful appreciation among all of us as to the nature of our heritage.

The museum that fails to have any impact whatsoever on the casual viewer or passerby, serving only the needs of the unswerving scholar, is culturally a bit sterile.

These somewhat philosophical concepts came to mind last fall during my visiting semester at the University of Waterloo, School of Optometry, in Canada. In the great corridor of the magnificent optometry building are seven counter-height glass, approximately 60x60x150 cm, display cases, and six glass-contained wall cabinets of comparable capacity on two of the walls. A hint of randomness in their placement and some relatively inconspicuous highlighting both seem to invite one to take a sidestep and at least a quick look each time he wanders through the corridor, relaxes or waits on a settee, or in traversing the lobby to enter or leave a classroom, the library, or one of the administrative or faculty offices, all on the same floor.

During my four month visit, each of the seven glass cases contained items related to a separate single theme. These were early optometric education in Ontario, period spectacles, ancient eyeglass cases and holders, early mechanical acuity measuring apparatus, skiascopy equipment, ingenious old optometers, and early ophthalmometers. In the six wall cabinets were displayed documentary optometric certificates and pictures, the evolution of phoro-optometers, early ophthalmic books, ophthalmoscope history, a now rare replica of Leonhart Fuchs' 1538 chart of the Diseases of the Eye, both the Latin and an English translation, and a collection of postage stamps featuring spectacle wearers or a visual theme.

I know that achievements like this do not just happen, that they are not brought about by mere fiscal appropriation or requisition. They evolve only by someone's nurturing, dedication, and persistence. So naturally I asked several persons at hand who would have been the responsible person, though I had suspected correctly. The answers were all "Ted," Dr. E.J. Fisher. Yes, this was just one of the many assignments he gave himself as a duty quite incidental to his administrative and professional career during his many early years as Dean of the former College of Optometry of Ontario and his more recent years as the academic architect and administrator of the School of Optometry at the University of Waterloo.

This valuable educational and cultural contribution is another credit to someone who cared.

About Ted Fisher:

The frequent contributions of optometricana by Professor E.J. Fisher certainly justify our mentioning another role of his which is unknown even to many of his friends in optometry. For more than a dozen years he has served as organist and choirmaster at the prominent Highland Baptist Church of Kitchener, Ontario, Canada. Earlier he had been organist at a Toronto Church while he was the Dean of the College of Optometry of Ontario.

On a Sunday in October Mrs. Hofstetter and I had the pleasure of attending services at the Kitchener church with Dr. Fisher at the console, at which he also did a feature performance with piano accompaniment.

While these words may seem to be merely a personal acknowledgment of another of Fisher's accomplishments, the fact has also some historical significance. It illustrates once again the high frequency of involvement of optometry's leaders in cultural and civic roles outside the pale of the profession. To express it in the popular vernacular, optometry has never been an island.

Commemorative coin for Dr. Zamenhof:

Poland's most recent commemorative silver coin honors the scholarly ophthalmologist who invented Esperanto (see page 43 of Vol. 8, January 1977). This is reported in what appears to be a clipping from the June 2, 1979 issue of World Coin News sent to Doug Penisten by Alan York. The article includes the advice that for full information readers may write Pekao Trading Corp., 225 Park Avenue South, New York, N.Y. 10003, which I did.

Apparently numismatists employ a lot of terms which escaped both Webster and me, but I do believe the following interpretations are accurate even if not entirely understandable.

The Zamenhof coin comes in two forms, one called "Legal Tender" and the other "Pattern (Proba)" or "Proof Quality", identified as "100 zloty" coins. 30,000 of the legal tender coins but only 3,000 of the "proof" or "pattern" coins were minted, the former being offered at \$22.00 each and the latter at \$35.00 each.

According to my Webster a "Proof" is a coin struck from a highly-polished die on a polished flanchette (a small wood board), not intended for circulation and may differ in metallic content from legal tender. In this instance the proof shows Zamenhof's portrait in front view while the legal tender coin shows him in profile.

The article reports that although this is the first time that Zamenhof is being honored on a coin of a sovereign government, his portrait previously appeared on two international coins of his own suggestion, "the 1912 spesmilo and double spesmilo authorized by the International Esperanto Congress". The spesmilo was proposed as an international coin equal in value to U.S. 50 cents, France 2 1/2 francs, Britain 2 shillings, Germany 2 Mark, Russia 1 ruble, Mexico 1 peso, etc.

Pinnock's popular optics:

A delightful review of a 72 page, 14 x 9 cm, booklet entitled "OPTICS" and published as one of Pinnock's Catechisms in 1834 by Whittaker and Co., London, was made by E.J. Fisher, O.D., in the August 1980 issue of the American Journal of Optometry and Physiological Optics, Vol. 57, No. 8,

pp. 528-529. The "Optics Catechism" was one of a long series of question-and-answer booklets written for popular reading and study.

Who was Pinnock? Here are a few excerpts from the "Dictionary of National Biography From The Earliest Times to 1900", reprinted at the Oxford University Press, 1937-38.

William Pinnock (1782-1843) was born of humble circumstances, baptised at Alton, Hampshire, England, on 3 February 1782. He began his career as a Schoolmaster at Alton and subsequently became a bookseller, author, editor, and publisher. He and his partner Samuel Maunder published the Literary Gazette and a couple of books, in London, with modest success, whereupon they entered into the publication of a series of low priced, pocket sized, educational works called "Catechisms". Pinnock was represented as the author, but he did little of the literary work. The Catechisms, 83 in all, were brief manuals of popular instruction, by means of question and answer, on almost every conceivable subject. More than a hundred editions of several of the titles were sold before 1858!

Though he made a fortune on these and several similarly popular publications, he had a mania for speculation and, due to lack of success in a series of unusual business ventures, was eventually obliged to part with most of his copyrights to Messrs. Whittaker and other publishers. He was always in financial distress.

Probably the most complete list of Pinnock's Catechisms is in the "British Museum General Catalog of Printed Books", 1963, Vol. 190. Topics included a variety of histories, grammars for several languages numerous sciences, technologies, and disciplines, a number of the humanities, various aspects of religion, some games, and even one on "Duties of Children to Parents"!

The progress of popular education owed much to his cheap publications.

Embryonic optometric journalism:

September 1974 saw the first issue of a possibly unique serial publication entitled the University of Waterloo School of Optometry Contact Lens Journal, Vol. 1, No. 1. The editorial board of five students and faculty members was headed by Professor M.G. Callender, O.D., M.Sc. During the ensuing academic year a total of six issues appeared, in mimeographed form on 8½" x 11" (22 x 28 cm) paper, and copies were distributed to all students, teachers, and researchers at the school, plus others who expressed interest.

The project continues, with No. 6 of Vol. 6 having appeared in March 1980, and a volume 7 issue is in progress at the time of this writing. Professor Callender, who teaches the contact lens course, is the perennial editorial head, with students and other staff members on the now ten-member editorial board.

Only a few pages make up each issue. The contents are articles by students and faculty, case reports, product reviews, and abstracts. No editorials or advertisements. Though it has a circulation of only a few hundred it is in fact a "refereed" journal and it bears the printed stiff-cover rubric, "Published by the students and faculty of the University of Waterloo School of Optometry with cosponsorship by the Federation of Students".

Civil War Optometry:

J.C. Tumblin, O.D., 5319 Broadway, N.E. (Box 5147), Knoxville, Tennessee 37918, wants to correspond with, or receive clues from, anyone who may be interested in the health, ocular conditions, or vision problems of the 1860's, and in particular of Robert E. Lee, Thomas J. ("Stonewall") Jackson, and Jefferson Davis. He reminds us that the medical records of the Civil War were destroyed in the fire that occurred as the Confederacy evacuated Richmond.

Dr. Tumblin has already accumulated a great deal of piecemeal information concerning Jefferson Davis. "For what it is worth", he says, "I have concluded that Davis had recurrent keratitis (keratoconjunctivitis), possibly dating to 1830..., then complicated by malarial keratitis and later by ocular manifestations of erysipelas. Recurrent malaria and the avitaminosis and exposure that were part of his imprisonment made resistance to any of these conditions poor, no doubt.

"Several episodes of amaurosis may have resulted from iridocyclitis as a result of malaria and/or erysipelas, and the iritis and/or atropine used to dilate the pupil may have caused secondary glaucoma sometime after 1865. Corneal ulceration and corneal scar may have resulted as early as the snowblindness episode (1830), but either malarial or erysipelas-related keratitis could have caused the scar mentioned first in 1865, as nearly as I can determine.

"Herpes zoster is a possible diagnosis, rather than erysipelas, but it seems to me less likely as it is much more severe. The intumescent cataract ("second eyesight") seems to have occurred only in advanced age and probably post-dated the supposed glaucoma."

Astigmatism and microscopy in 1880:

Science, in its 207th volume and its 4,426th issue on January 4, 1980, commemorated its 100th year by including an easily removable reprint of its first issue, Vol. 1, No. 1, July 3, 1880, at page 54. A copy was called to my attention by Charles L. Haine, O.D., Chief of Optometry at the Veterans Administration Medical Center in Newington, Connecticut.

Initially the publication Science was owned by Thomas A. Edison, only to be abandoned in a couple of years for lack of support. It is interesting that four of the 12 advertisers in the first issue were Joseph Zentmayer,

R. & J. Beck, McAllister, and James W. Queen & Co., all with optical identification. All except one of the 12 advertisements were on the front cover page. The serial underwent two additionally successive starts during the immediately following years with other financial backers or owners before becoming firmly established. The American Association for the Advancement of Science did not acquire ownership until 1944.

Further illustrating the significance of optics in early science is the article on "Errors of refraction in the eyes of microscopists", one of the five major articles of scientific intent in the first issue. It was authored by John C. Morgan, M.D., and is credited as having been reprinted from the American Journal of Microscopy. The complete article follows:

It will, I think be at once admitted that the requirements in construction and adjustment of glasses, and the results of work done, must vary greatly with individualities of the workers' eyes.

One of the most important, but least thought of, is astigmatism, a condition known to oculists as a common cause of occipito-cervical headaches, sometimes so severe as to be considered due to grave hyperaemia of the brain, or to "brain-fag", etc.

This defect consists in a diversity of curvature; hence, of refraction of one meridian of the cornea, as, for instance, the vertical, with another meridian (horizontal). One of these meridians may be "far-sighted", the other "nearsighted", or the difference may be more moderate.

Some slight degree of this is quite common, as many of your readers will discover on viewing a black line at a convenient distance in these and other positions. In one it will look black and sharp; in another, at a right angle, pale, ill defined, and as if the rays were cut off by a longitudinal slit in a diaphragm. Such a slit, turned in various positions, has a curious effect, illustrating the influence of loss of the rays. Astigmatism similarly affects vision; only, in this, dispersion is the immediate cause of loss.

Another and very simple test of astigmatism is "the point of light"--e.g. a gas flame, reduced to its smallest dimensions (of the yellow), when, to a normal eye, across a large room, it appears as a round point; but not so to astigmatic or to other abnormal eyes. Dispersion of rays results from imperfect focussing; and the object seems larger in consequence (but less bright). If this dispersion be only in one meridian of the eye (astigmatism), the apparent enlargement will be exactly the same position, and the image will be long, not round, and thus the individual may note the precise angle in which a cylindroid lens must be worn, for "correction", and the restoration of the round image. If this meridian be short-sighted, the cylindroid must be concave; if far-sighted convex.

The experiment may be varied by using a dark card with a 1/8 inch round hole in it; when placed before a window, strongly illuminated, the point of light appears, of course, and it is more accurate in shape than the flame.

One point more. Spasm of the focussing apparatus (called "spasm of accommodation") may derange the sphericity of the eye, and so affect vision. Strained vision is liable to this. On the other hand, the same apparatus may be paralyzed, and ordinary vision deficient, whilst the focussing of the microscope entirely corrects it.

A linear marking, long or short, on a diatom, or a scale, or a cell, must suffer the same variation in diverse positions after the passage of the rays through the best glasses. Some of the disputes as to these may be traced, doubtless, to this cause; and probably may be set at rest by the use of astigmatic spectacles with the microscope.

These are merely lenses of prescribed cylindrical curvature, whose axis is placed in the position of the abnormal corneal meridian, whereby its curvature is corrected. The general effect is to render the whole cornea practically spherical in form.

Astigmatism has been an injury to painters, as Turner, whose later pictures (the power of accommodation, or self correction, being lost with age) are discovered to be distorted in consequence; the tendency being to exaggerate the size of the paler dimension in painting it.

On the contrary, in microscopic drawing, as with the camera lucida, the improperly, pale line will be perpetuated, and the perspective misrepresented; and distortion of dimensions generally may be perpetuated by the most careful observers, and endless disputes may thus arise.

Optometric History at Berkeley:

Ms. Carolyn Katz, editor of Optometry Forum, a publication of the University of California Optometry Alumni Association, has initiated a new column entitled "Historical Perspectives" in the July/August 1980 issue, Vol. 16, No. 4. Her first entry is the June 15, 1946, farewell message of their first optometry dean, Ralph S. Minor, Professor of Physics and Optometry, on pages 18 and 19.

Interspersing his dry wit throughout, Dr. Minor reviewed his involvement with the optometry school from the date, thirty years earlier, when "... it was my privilege to get acquainted with a group of men who had vision." He added, "...for they were not a learned group. The vision which they saw was based upon a sincere desire to improve the conditions of their calling and the service they were rendering."

Many of Dr. Minor's comments provide insight into the personalities of several of his academic colleagues who are now known as early historical figures in optometric education.

King Olav V Opens Optometry Museum

The optometric museum of the Tinius Olsens Tekniske Skole in Kongsberg, Norway, about 80 km west-northwest of Oslo, was opened recently by His Majesty King Olav V of Norway. The event, with photographs, was featured in the December 1980 issue of Interoptics, the Bulletin of the International Optometric and Optical League, No. 38, front page. Reported was an instrument of the early "thirties" said to be of particular historical interest to Norwegian optometrists,--a Thorner-Busch Refractometer, which for some unexplained reason is said to have led to the limitation of objective methods of refraction to physicians only. The article adds that this limitation still exists in Norway.

To some of us, such legal interpretation, if true, is nothing less than baffling and needs clarification, if only for its historical significance.

A description of the Thorner-Busch Refractometer would also be appreciated.

"Optical Letters":

This is the title of a 24 page, 22 x 14.4 cm pamphlet "written and arranged by G.C. Tait" and "Published through the courtesy of the advertisers", sent to me by E.M. ("Peg") Wood, Flat 6, 6670 Victoria Rd., Devonport, Auckland 9, New Zealand, via my colleague Professor Rogers Reading. The only clue to its date of publication is in one of its advertisements, that of "Barr and Stroud", which asks the reader to "Send for our 1933 List".

Included are eight model letters, undated, such as to prospective and previously served "clients." Sixteen "Rules for Letter Writers", include, "Never use two words when one is sufficient". "Never use a comma when you can use a full stop", "Always employ positive phrases in preference to negative phrases". "Cut out the first sentence of your letter whenever possible" and "Do not litter your letter with literature of proprietary lines. One circular to each letter is sufficient."

Almost all of the advertisers identify themselves as being in London.

This booklet is being forwarded to the International Library, Archives, and Museum of Optometry, Inc., in St. Louis, Missouri 63119.

Levenesque suspense:

In response to my notes about William S. Dennett on page 64 of the October issue of this newsletter Dr. John R. Levene wrote, "There's really little mystery to William S. Dennett. I'll give you just one clue, and also one correction, the latter because I dislike perpetuating historical errors. Dennett was surgeon to the New York Eye and Ear Infirmary. He suggested the 'centrad' in 1889, not 1891!"

Confirming my citation of Emsley and Swains as correct I wrote John asking for more details and documentation. His response? "I thought I would keep the mystery going by only giving a clue at a time. Perhaps one of your other readers will catch on as I give more information with each newsletter."

But, John, isn't that perpetuating the alleged error?

The serendipitous concave mirror skiascope:

Early textbooks on refraction typically include discussions of the relative merits of concave and plane mirror retinoscopes, with the plane mirror type quite consistently favored. In consideration of these opinions and the fact that a concave mirror is certainly more difficult to provide than a plane mirror, one must wonder why the concave mirror retinoscope was used at all. It was in fact the more commonly supplied type of retinoscope with the earlier trial lens sets, which some of us remember well.

Though several of the texts include brief histories of the retinoscope, the documented clarification of this point has so far escaped me. Edward Jackson, M.D., in his third edition of Skiascopy, 1898, Philadelphia: The Edwards & Docker Co., devoted several pages to the history, with references which I have not yet explored. Evidently, the earliest observations of the skiascope reflex came with the fortuitous rotation of a concave mirror about an axis crossing its peephole. The concave mirror was the ophthalmoscope of that era used in conjunction with a light source alongside and posterior to the patient's head. The concavity was of course essential to concentrate an adequate amount of light through the patient's pupil for ophthalmoscopy. It was not, however, the most generally convenient optics for judging the skiascopic reflex. It was not until the skiascopic technique acquired some popularity about a decade after its discovery that the advantages of plane mirror retinoscopy were explained.

The explanation itself did not bring about an immediate acceptance, illustrating how resistant we are to any change, even improvement. A number of textbook authors during the early part of this century bravely expressed their preference for the plane mirror but nevertheless gave equal discussion to each type of mirror. In 1912, for example, Lionel Laurance (Visual Optics and Sight Testing, London) devoted more than four pages to a comparison of the two. For the purpose of discussion he divided the types of mirrors into three, the plane mirror, the concave mirror which placed the conjugate focus of the light source between the peephole and the observed eye, and the "Orthops" retinoscope mirror, a long-focus concave mirror which placed the conjugate focus of the light source behind the observed eye.

The subsequent invention of the self-luminous retinoscope with the adjustable focus of the light source within the handle of the instrument has of course made the choice very simple for today's optometrist. Meanwhile, the expressions, "plane mirror" and "concave mirror" retinoscopy,

continue to be used to classify the instruments in terms of whether one adds "plus" or "minus" lenses to neutralize "with" motion, even though the optical reflecting surface in neither instance is concave.

Hewett honored:

The Australian Optometrical Association has established the J. Lloyd Hewett Award to memorialize optometrist Hewett upon his retirement from 20 years of editorship of the Australian Journal of Optometry. The occasional but usually annual award is intended "to foster and encourage the work of young research workers or clinicians not yet established as authors or full-time academic optometrists."

The journal had had only one other editor, W.G. Kett, during its existence. Kett served in this role for 40 years prior to Hewett's taking over the duties.

Apotropaic ophthalmology:

Not really, but Dr. Albert Mintz Potts, head of the department of ophthalmology of the University of Louisville, Louisville, Kentucky, happens to be fascinated by man's ancient, almost mystical obsession with the gift of sight as implied in symbolic talismanic eyes. His full-length book, "The World's Eye" is scheduled for publication in 1981 by the University Press of Kentucky.

An erstwhile optometrist in Uganda:

Late in 1959 I undertook to do a questionnaire survey of members of the then-called South African Optical Association. One of the responses came from a member named Charles Mitchell in Jinja, Uganda, East Africa, who answered every one of the 36 questions and enclosed a long breezy letter. His questionnaire answers indicated that he was born in 1906 in England and still single, that he had attended the Liverpool School of Pharmacy four years and later the Liverpool School of Optics part-time, completing the latter in 1948, and that he started practicing optometry in Northern Rhodesia (now Zambia) in 1949. At the time he responded to my questionnaire he was employed on salary at The Hospitals in Jinja, a community of "only 900 Europeans" and an uncounted number of "non-Europeans." During the prior 12 months he had done "ten only" sight tests or examinations for glasses, and these routinely included ophthalmoscopy, visual fields, and retinoscopy, frequently phorias, and seldom cycloplegic or mydriatic. Most of his time was devoted to work as a pharmacist, with occasionally teaching. During his 1959 leave he had attended a couple of optometric lectures (presumably in South Africa). He received the South African Optometrist, Dioptric News, and the Optician, and owned approximately 12 volumes of professional books in optics, and another 12 in pharmacy. Jinja had no other optical, optometric, or ophthalmic service.

Obviously concerned that his answers might be thought to lack credibility, he typed out a lengthy explanation in rather free-style English. The letter is reprinted here, verbatim and untouched.

"The Hospitals,
P.O. Box 43,
JINJA
UGANDA
East Africa

"24th January, 1960.

"H.W. Hofstetter, Ph.D., Esq.,
Professor of Optometry.

"Dear Professor,

"Your questionnaire reached me around New Year's Eve. I have filled in my answers one way or another and, I did write a long effusion by way of a covering note. Well, I thought I'd better re-write and, there being quite a spate of work, I'm afraid it is only now that I've slipped a sheet into my type-writer and headed a letter to you.

"You will understand the delay when I tell you that I do all my office typing at home. All the typists, bar the Medical Superintendent's personal clerk, are Africans. They are not typing in their own language and, were it suddenly decided that I should be seconded to WHO Headquarters at Brazzaville, I guess I'd make more mistakes in French than do the Africans in English!

"I want you to believe that I have answered your questions with all sincerity and not attempt at either evasiveness or facetiousness. Truth is -- I've lived one of those lives! I have my 'nuisance value'.

"To afford you an accurate (?) picture I'd better let you have the lot in chronological order.

"1918 - 1923 Education at the Collegiate School, Liverpool, England.

"1923 - 1927 Three and half years apprenticeship with Messrs. Boots, Ltd., Holylake branch. One of those places where messengers came and went and, in the interim the apprenticeship included floor-scrubbing and what-have-you. A part-time course was taken and, I passed by Preliminary Scientific examination before completing my articles. (Aided by a month full-time at the Liverpool School of Pharmacy.

"1927 - 1928 Full-time at college. Qualified M.P.S.

"1928 - 1930 Locums and managerships and, during this period I attended part-time tuition in Optics. Then a really good job was 'handed on a plate' but, it was away from the Optical School.

- "1931 - 1938 My Mother bought me a practice on a seven years lease. It appeared marvelous on paper. I closed down at the end of the lease. Will extend on this anon.
- "1938 - 1939 Locums. Was at Royal Southern Hospital, Liverpool, when was declared War. I was told to find a suitable room in Out-Patients and fit it as a Pharmacy. Out-Patients Dept. was on the docks and, In-Patients was evacuated inland.
- "1939 - 1945 Royal Southern Hospital, O.P.D. I did everything from X-Rays, P.M.s to even the cooking!
- "1946 --... Colonial Overseas Civil Service

"New to extend.

"The Business Era. Well, my premises were in a road where the butcher nextdoor went to the arms of his Maker through the gas-oven, the proprietors of the chip & fish shop next-door-but-one did a moonlight flit, the chandler down the road just locked his doors on stock and all and disappeared and, my pal, the optician opposite moved down hill.

"Momentarily I lost everything. With no money to advertise I joined one or two local clubs. One was a semi-professional drama club. From the ground-floor I did scene-shifting, stage carpentry to walk-on parts -- and so until I was playing lead! When not learning lines I kept up a sporadic reading of Optics.

"At the Royal Southern Hospital I was able to keep in touch with Optics.

Then I was accepted for the Colonial Service and, my first shock on arrival in Northern Rhodesia was to discover that my erstwhile apprentice in Manchester was a Senior Officer! He was also Government Optician. He transferred to Nigeria and, I took over the job. And I set myself a solid minimum of one hour's reading every night.

"Transferred to Livingstone, a delightful town within sound of Victoria Falls, and an Ophthalmologist from Bulawayo was contracted to pay regular visits. He took me under his wing and, I'll for ever be grateful for what I learnt under Dr. Jack Greenwood. I really got down to work, paid for a correspondence course but, it was hopeless -- questions at the end of the lectures were not relevant to the lectures. I was sending my answers to the exercises by air-mail and the replies were coming surface-mail. In the end I wrote and requested the full set of papers and used them as a means for cross-referencing with my old notes and text-books.

"1951, leave and a letter of introduction to the Senior Ophthalmologist at Bootle General Hospital and, in time for a cramming-course at the Liverpool School of Optics.

"Leave! Holiday! I arrived in Britain 27th August, was at my first clinic 28th, was introduced to the Junior Ophthalmologist who attended School Clinics and, was at my first lecture 31st! I sat the F.N.A.O. in

December and, sailed again January. And after twenty years I became one of four in a class of nearly thirty to qualify! And, due to the new National Health Services, it was the first optical examination to be invigilated by Home Office invigilators!

"In the Staff List I am here as a Pharmacist, not recognized as an Optician. Government Service included the all-embodying phrase: and any other duties. A few months ago there was an immigrant who wished to practice as an Optician but, his qualification was from some Central European state not recognized in Britain. The Immigration Department requested the Medical Services to conduct a Trade Test. The Junior Ophthalmologist and I were detailed off for the job!

"Hobbies and interests. I have told you that I once was a member of a semi-professional club. The amateurs were the actors and, the professionals included authors, Drama School proprietors and a theatre owner. It was due to the last that I had my first appearance on a professional stage. My pay just went into the till to swell the week's takings! I'd turned pro! It became a haphazard addition to my livelihood!

"Coincidence is remarkable! I was taking a short-cut through a female ward at Lusaka Hospital when a patient called me across.

'I've seen you before somewhere.'

'Impossible, madam, I've only been in the country a month.'

'You're from the Midlands.'

'Admitted!'

'Just before the war I saw a play at the Winter Gardens Theatre, New Brighton. There was a Law Court scene and, if it wasn't you it was your twin one of the Court Officials.'

'Clerk of the Court in "Unguarded Hour" with Wyndam Goldie playing lead.'

'There was another play I saw.'

'Was it "Evensong"?

'Of course! So it was you! I wondered how you managed to keep a monocle glued to your eye for a whole scene!'

"Within a week I had a 'phone call. The voice said, 'I've heard rumors that once you were on the professional stage. Well, we're thinking of staging something in aid of the Mrs. Churchill Fund...' I was known!

"A Founder and Life Member of the Livingstone Amateur Dramatic Society (the LADS), a Life Member of the Lusaka Theatre Club. Lost my amateur status when I was one of the Radio Players of the Central African Broadcasting Services. And I hit Uganda.

"Kampala to play the Red King in 'Alice in Wonderland' and have an audition for News Reader from Radio Kampala. Then Jinja to play lead in Saloon Bar in the only privately owned theatre in East Africa.

"Success to success! Then I was cut down to size! It was one of those highly characterized parts. Slowly I was getting into the skin of the part and, the lines were coming as the character was building-up. At the seventh rehearsal the producer asked me when would I know my lines? I replied, 'On the very same day I have the character, Dr. Protheroe, exactly as I want him.' I was asked would I object were someone else tried? My answer was, 'You're the producer and, "the play goes on"'!

"So, irrespective of the fact that more than half of the cast was still walking round with books, I went out on my ear! But was recalled to do the make-up! I was told later that the leading lady was becoming jittery. Well, there was a short scene where she was partially hypnotized -- I wonder whether she was scared that I'd do the job properly!

"It tickled my peculiar, sardonic humour! The old pro. found not good enough for even an amateur company! As I entered the dressing-rooms with my make-up case I said to myself, 'This is where I came in!'

"About thirty years ago P.J. Maddocks, Electrical Architect, demonstrated at the Wallasey Playgoers the capacity of the new switch-board and stage lighting. Alf Monks, an old busker assisted by shewing how make-up was effected by the lighting. Working the switch-board was Charlie Mitchell. I travel a few thousand miles and through the years; then I'm a no-good, a wash-out. But I stage a come-back as make-up expert and -- again -- I was back on the switch-board! I'd arranged the lighting of the set and, I did the make-up accordingly!

"My other hobby is writing. I have six short stories completed. When I have the full dozen I'll hunt out publishers. The Wallasey Playgoers also produced two of my one act plays.

"Whilst writing this a thought has struck me. There are many plays and films of the erstwhile star becoming down and out, having his final chance and staging a come-back. Remember that glorious Chaplin film where Charlie and Buster Keaton have their chance?

"But they all concern professionals. What about one where it is amateurs? How they work at their normal jobs during the day. The scratch teams being welded into a company, the rise of the stars, their fall and a phoenix act at the end!

"This time next year I'll have reached maximum age with the Colonial Civil Service and, I'll be on the way home for the last time. Pharmacy, Optics or Journalism? Still in my fifties and retired! But I'll have almost eight months leave on full pay. There are those short stories -- also this nebulous castle I've just built.

"Hope I haven't bored you but, I said right at the beginning that I possessed a 'nuisance value' and, once I sit in front of my typewriter and the mood is with me this sort of thing usually happens.

"The above is no success story, my dear Professor, but it's no failure! The money I have in the Bank is such that the Manager smiles at me albeit he doesn't ask me into his office and open the vintage sherry. I have never wanted riches -- just sufficient to live a comfortable life. Others save up and see the world on their savings. I've lived by Victoria Falls and, from where I sit at this moment I can see through a window a white pylon; it commemorates the spot where John Hanning Speke discovered the source of the Nile. He walked it. I came by train! Passage paid!

"So that's me and, where do I fit when you come to sectionalize the Opticians of Africa?

"Sincerely yours,

"C. Mitchell, M.P.S., F.B.O.A.,
F.O.A. (S.A.). and Thrown-out
Actor."

Physiological optics history:

Professor L.S. McClung calls our attention to a recent (1975) Ph.D. thesis at London University, Imperial College, by P. Osborne titled "Physiological optics in the 19th century", supervised by A.R. Hall. This was noted in a recent issue of Isis.

Two stamps of interest:

Dr. Alan York sent us a newspaper clipping, his envelope postmarked November 18, which shows a Republique Tunisienne stamp featuring a symbolic eye. The news item reads as follows.

A 100-millime stamp was released by Tunisia Oct. 26 promoting the 7th Afro-Asiatic Congress of Ophthalmology, reports the Ministry of Transport and Communications, Tunis, Tunisia. Amor Ben Mahmoud designed this issue which was printed in offset by Joh. Enschede en Zonen with 100 subjects per sheet.

Coincidentally the postage on Alan's envelope was a commemorative 15¢ USA stamp imprinted with the names HELEN KELLER and ANNE SULLIVAN and a beautiful artist's illustration of Miss Sullivan teaching Miss Keller to read her hand.

New but historical:

A new, annual, luxuriously elegant periodical has been started by the Optische Werke G. Rodenstock, Munich, West Germany, for international

distribution. The German edition appeared in May 1979 under the title of SEHEN, and the English version appeared in October under the name of VISION. Its aim is to inform the public about the subject of vision on a rather sophisticated level. It is intended that copies be placed in practitioners' reception rooms.

The feature article in the October 1979 English editions is entitled "VISION: THE NOBLEST SENSE?" It deals at length with the career and philosophy of Baruch de Spinoza (1632-1677). "Now Spinoza, as a learned Jew, knew very well from the old Jewish teachings that in addition to one's studies one should also learn an art or a craft with which to nourish oneself. Therefore, Spinoza, before he turned to the tranquil life outside the city, learned glass grinding for reading glasses and other purposes."

The article itself is derived from "Baruch de Spinoza, Samtliche Werke", Felix Meiner Verlag, Hamburg, 1977.

From the Archives:

This is the title of an article by David H. Reynolds, Ph.D. on pages 147, 150, 153, 156, and 158 of the September 1980 issue of The South Africa Optometrist/Die Suid-Afrikaanse Oogkundige, Vol. 39, No. 3. It consists largely of reprints of the editorial and other entries, including several selected advertisements, from the first issue of The South African Optometrist, which appeared in January 1934. The bulk of the first issue, says current editor Reynolds, consisted of "A Brief History of the South African Optical Association," reproduced in full in the present issue. The history includes names, places, and dates in remarkable detail. For example, "On the 31st March, 1924, in the Board Room of the Scientific and Technical Club, Johannesburg, thirteen Opticians gathered to witness the birth of what is now known as The South African Optical Association, and of the thirteen, whether lucky or otherwise, the following still remain in action for the furtherance of the Optical Profession in South Africa."

Inventor in hiding:

A most thoroughly researched historical article is one in two parts by Walter Gasson in the July 5 and 19, 1980, issues of the Ophthalmic Optician, Vol. 20, nos. 14 and 15, pages 490-492 and 538, 541, 542, and 546, entitled "The evolution of spectacles" and subtitled "Part 1, the Chinese contribution" and "Part 2, The beginnings of visual aids". At the outset the author undertook to shed light on whether or not spectacles were introduced into feudal Europe from the Orient. His evidence did not support this theory.

Especially tantalizing was a passage near the close of Part 2, as follows: "It is still quite possible for some future archivist to discover an old manuscript of the late thirteenth century divulging the name of the inventor of spectacles. For example, at the time of writing,

in the Vatican Library alone, in its 25 miles of bookshelves, there are about half a million ancient volumes and about sixty thousand medieval manuscripts which have not all been examined and catalogued." The author's reference for this assertion is L. Ambrosini and M. Willis, "The Secret Archives of the Vatican", Eyre and Spottiswoode, London, 1970.

Spectacle dating:

The October 27, 1980, issue of Medical World News, pages 69-70, featured Dr. Edward Okun, Clinical Professor of Ophthalmology at Washington University, St. Louis, under "Names in the News" for his collection of antique spectacles. He maintains an exhibit of much of his collection in his office in Barnes Hospital. His oldest pair are dated back to around 1630.

Dr. Okun is reported as using several techniques to date his spectacles. One is by finding matches in paintings of people wearing glasses and noting when the artist lived. Another is in the Glasögen Katalog published by the Nordiska Museet in Stockholm. He has also spotted some in old Meyrowitz Brothers eyeglass catalogues which were issued every few years as styles changed.

H.W Hofstetter
D.K. Penisten, Editors