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

Vol. 13 April 1982 Number 2

New 1982 members:

During the first several years of the OHS, the early seventies, we included annually in this newsletter a list of the names and addresses of our members, partly to encourage intercommunication among us, and partly to illustrate the worldwide diversity of those interested in optometry's heritage. The membership grows slowly indeed, but steadily, as we add several names each year and lose fewer, the latter mostly by the morbid process of human attrition.

To illustrate the current growing process, here are the 1982 additions, i.e., up to and including most of March, thirteen altogether, three from two widely separated Canadian provinces and ten from eight widely dispersed states of the U.S.A.:

Harvey Aftel, O.D.
741 Shirley Avenue
Norfolk, VA 23517

Arol R. Augsburger, O.D.
611 Morning Street
Worthington, OH 43085

Ms. Nellie J.R. Bastedo
EMS Library
University of Waterloo
Ontario, Canada N2L 3G1

Ms. Beth Bazin
7622 N. Sunset Drive
St. Louis, MO 63142

Clair W. Bobier, O.D.
School of Optometry
Faculty of Science
Waterloo, Ontario
Canada N2L 3G1

Stanley L. Jason, O.D.
515 Butterworth Street
Norfolk, VA 23505

Robert Madden, O.D.
259 Meridian Avenue, #6
San Jose, CA 95126

M.A. Marvelli, O.D.
1172 Monroe Street
Galesburg, IL 61401

Gerald Mulrooney, O.D.
6454 Quinpool Road
Halifax, Nova Scotia
Canada B3L 1A9

Serials Department-E
John Vaughan Library
Northeastern Oklahoma University
Tahlequah, OK 74464

Richard Stein, O.D.
171 New Providence Road
Mountainside, NJ 07092

Larry B. Wallace, O.D.
202 East Court Street
Ithaca, NY 14850

Dr. Steven G. Zantos
580 Surrey Hill Way
Rochester, NY 14623

Thanks!

Quite unsolicited, not even hinted at but delightfully welcome, were four recent contributions to the O.H.S. over and above membership dues, from the following: Professor E.J. Fisher, ten dollars; Thomas M. Funk, a student, five dollars; R.C. Van Hoven, O.D., five dollars; and an anonymous donor contributing in memory of Professor Monroe J. Hirsch, ten dollars. It is remarkable how rewarding this is for those of us who have the responsibility of keeping the OHS functioning.

Two outstanding OHS members die:

Fumio Morry, internationally renowned and the acknowledged leader of professional and educational optometric development in Japan, and Monroe J. Hirsch, prominent American educator, researcher, and editor, both were members of the O.H.S. and made significant contributions to our knowledge of optometric history. At the time of this writing, news of their recent deaths have not appeared in any of the major journals, but because of their important roles throughout their productive careers we can anticipate detailed obituaries to appear soon.

Bound to be different:

Some months ago OHS President and rare book collector James Leeds, O.D., was offered three bound sets of 1905-1907 optometric case records at the price of $150.00 by Mr. A. David Paulhus of Wells Bookstore and Gallery, Route One, Wells, Maine 04090. A bit reluctantly, but curiously, Jim advised that he would have to see them before saying no, or yes, as his hobby involves only "published" books and he had never considered collecting old case records.

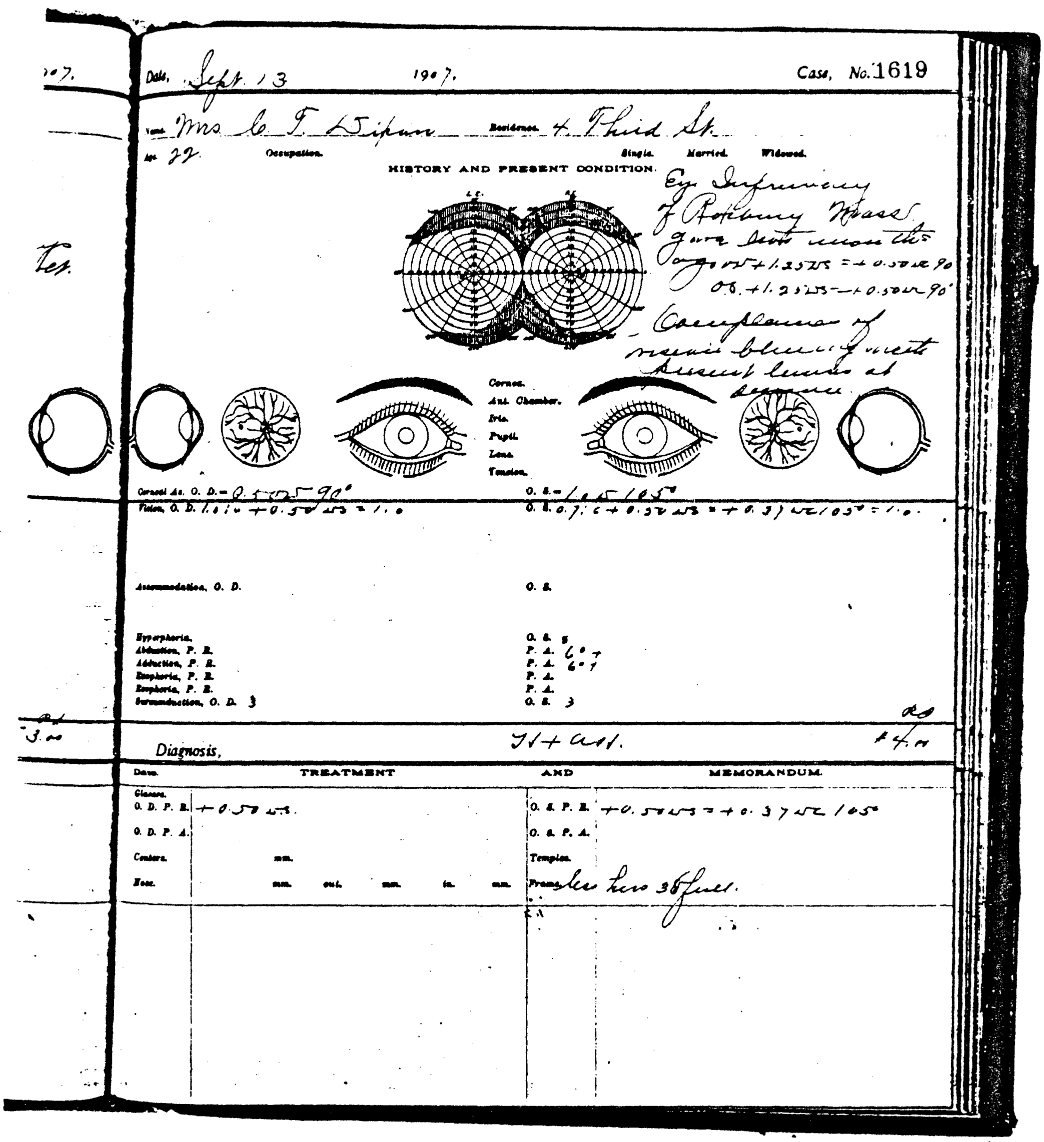
After receiving the three bound sets on loan and communicating further with bookdealer Paulhus, Jim was quoted the "irreducible price of $85.00. Fascinated by the obvious rarity of the three books but deciding that they were outside of his personally affordable interest Jim called OHS Secretary-Treasurer Maria Dablemont, near-at-hand Executive Board Member Jerome Abrams, O.D., and me for advice. The upshot of our discussion was the decision to purchase the three volumes with OHS funds and contribute them to ILAMO, the International Library, Archives, and Museum of Optometry, Inc.

To enable me to tell you about the case records Dr. Leeds sent them to me first, to be forwarded later to ILAMO.

Each volume measures 31x26x3.8 cm externally, with slightly smaller page size, in burgundy-and-black half leather ledger binding with the words OPHTHALMIC CASE BOOK and the beginning case number (201, 701, or 1201) in gold letters on the spine. The earliest volume includes the 500 numerically imprinted, front and back, pages 201-700, on which are recorded the case records of 500 chronologically examined optometric patients between March 8, 1905 and April 3, 1906. Preceding the numerically imprinted pages are 13 pages of two columns each, with each

column headed by one of the letters of the alphabet. In each column are listed the patients whose names begin with the column's letter, and following each name is the number of the page containing that patient's record. Obviously the volume was purchased by the optometrist in bound book form, and handwritten entries were made directly in the book at the time each patient was examined.

The next volume, with imprinted pages 701-1200, included case records from April 4, 1906, to February 3, 1907, and the third, pages 1201-1700, from February 6, 1907, to October 16, 1907. These indicate a practice growth rate of about 25% per annum and an average of 573 new patients per annum during the almost three year period. All of the records are in the same handwriting, that of the optometrist himself. The illustration below is a reduced photocopy, approximately half the original size, of a representative case, that of a 22 year old Mrs. Dixon.


Date, Sept. 13 1907. Case, No. 1619

Name Mrs C. F. Dixon Residence 4 Third St.

Age 22 Occupation. Single. Married. Widowed.

HISTORY AND PRESENT CONDITION.

Cornea.
Ant. Chamber.
Iris.
Pupil.
Lens.
Tension.

Corneal As. O. D. O. S.

Vision, O. D. O. S.

Accommodation, O. D. O. S.

Hyperphoria. O. S.
Abduction, P. R. P. A.
Adduction, P. R. P. A.
Esophoria, P. R. P. A.
Exophoria, P. R. P. A.
Sursumduction, O. D. 3 O. S. 3

Diagnosis,

Date. TREATMENT AND MEMORANDUM.

Glasses.
O. D. P. R. O. S. P. R.
O. D. P. A. O. S. P. A.
Centers. mm. Temples.
Foci. mm. out. mm. in. mm. Frames.

The printed record form is actually in three colors, dark blue, light blue, and orange rulings, with black printed legend and figures on white paper. The recorded history in this reproduced instance reads, "Eye Infirmary of Roxbury Mass. gave two months ago OD +1.25 DS ⊂ + 0.50 DC 90 O.S. +1.25 DS ⊂ + 0.50 DC 90° Complaines of vision bluring with present lenses at destance." Corneal As. O.D. is recorded as "0.50 D 90°" and O.S. as "1.00 D 105°." At the top of the middle area Vision, O.D. is recorded as "1.0: C + 0.50 DS = 1.0" and O.S. as "0.7: C + 0.50 DS ⊂ + 0.37 DC 105° = 1.0" which seem to say that for the right eye the uncorrected acuity was 1.0, its correction +0.50 sphere, and the corrected acuity was 1.0, and for the left eye the uncorrected acuity was 0.7, its correction +0.50 sphere ⊂ +0.37 cylinder axis at 105°, giving a corrected acuity of 1.0. In the lower portion of the middle area are seen "6°+" and "6°+" next to each of two of four P.A.'s, which seem to represent the abduction and adduction findings at the near testing distance (the punctum appropinquum?). Near the bottom of the same area are the Sursumduction entries of O.D. "3" and O.S. "3".

In the Diagnosis space is the abbreviated entry "H + Ast.", meaning hyperopia combined with astigmatism. Also shown at the right edge of this space is "Pd $4.00". In the Treatment and Memorandum area in the lower third of the page are the lens prescription and the spectacle frame specifications.

Other case records show considerable variance of entries, notes on repeat visits, and occasionally an attached letter from the patient, a relative of the patient, or a physician who referred the patient or to whom a patient was referred.

A statistical sampling of 100 successive patients in the third, 1907, volume shows 62 females and 38 males, with an age range from 7 to 69 years and a slightly bimodal frequency distribution with maxima at 25 and 55 years, remarkably similar to the age distribution which I reported for a 1947 Ohio optometry practice (Hofstetter: OPTOMETRY, 1948).

Who was the optometrist? His signature shows up nowhere in the records, but the several copies of correspondence identify him unquestionably as Herbert I. Reed of Dover, New Hampshire. The first Blue Book of Optometrists and Opticians, 1912, lists Reed at 430 Central Avenue, as having qualified himself by "Private Instruction 1902-3", and as a member of the Granite State Optometric Association and the A.O.A. He is similarly listed in successive Blue Books through 1950 with only an address change to 47 Concord Avenue in the 1940 and subsequent editions.

The first of the three volumes included an adhesive label on the front cover inside which reads, "IN ORDERING A NEW BOOK REFER TO Order No. A8210 Mar. 6 1905"; a similar sticker in the second volume says "A8654 Feb. 7 1906"; and the third or most recent one says "A9120 Jan. 7 1907". So perhaps there are 50 or more additional volumes of these meticulously maintained records shelved somewhere! In none of these three is the printer of the forms identified.

"Insight" vs. "hindsight":

Colin B. Fryer of West Derby, Liverpool, England, has written the following letter to the editor of The Ophthalmic Optician (January 30, 1982) in response to a previous letter in the December 5, 1982, issue from someone identified as "Insight":

"Sir— 'Insight' is in error when he states that the word 'meniscus' was coined by Nitsche and Günther of Rathenow. In fact it was first used by Johannes Kepler in his 'Dioptrice' (1611) to describe the convexo-concave lenses he had recently devised, although they were not actually made until some years later."

Strangely, four different dictionaries consulted by me consistently credit the origin of the word to the Greek mēniskos, meaning crescent, diminutive of the Greek mēnē, the moon.

Early Desmond lectures commemorated:

To commemorate the series of lectures on optometry given by optometrist Daniel Desmond in Osaka, Japan, in February 1926, the Osaka Gankyo-Senmon Kouri Kyōdō Kumiai (The Osaka Ophthalmic Opticians Association) sponsored their republication in a handsome cloth-bound volume of 282 pages dated August 10, 1981, and edited by Yoshihiro Fukuda. Though Desmond lectured in English, the book (19x13x1.8 cm) is entirely in Japanese. Mr. Terryoshi Kugimiya, a third year optometry student at Indiana University, the son of prominent optometrist parents in Beppu, on the large southern island of Kyūshū, Japan, provided the essential translation for this review.

The Japanese printing is of course in columns instead of rows, and the pagination is from right to left. Beginning, then, at what we in the Western world would call the back of the book, are 22 unnumbered pages which include some prefatory remarks, several photographs, and some optical advertisements (presumably helping to offset publishing costs). One of the photographs is of a group of about 200 persons including Desmond, posed on the steps at the main entrance to an academic-like edifice. At least 10, and perhaps as many as 20, appear to be women.

Another illustration is a photographic copy of a tear sheet from a diary or pocket calendar on which was inscribed, apparently in Desmond's own longhand, "D. DESMOND, F.S.M.C. D.B.O.A. R.O. Diploma of the British Optical Association, Fellow of the Spectacle Makers Company, Registered Optometrist." This suggests that he may have been of British rather than American origin as reported by the late Fumio Morry (variously spelled Mori and Morie) in the N.O.H.S., July 1979, Vol. 10, No. 3, p. 48. Shown on the apposing page is a photographic portrait of Desmond.

Following the 22 unnumbered pages are 145 numbered pages, from right to left and including a good many optical diagrams, which are the translated transcriptions of Desmond's lectures as edited by Hikobe Kaji and distributed to those in attendance by the Osaka Gankyō Shōkō Kumiai (The Osaka Optical Commerce and Industry Association) on June 1, 1926. These were republished a few days later, June 10, 1926, in book form, with some advertisements, to be sold to anyone interested.

Advertisements appear in the next five unnumbered pages.

Then follow 42 numbered pages, i.e. 1 to 42, originally edited by Tokunoske Iyō and published on March 31, 1927, as a translation of Desmond's supplementary lectures on practice development and management. These are followed by 14 more unnumbered pages of advertisements and editorial comments, and then 31 numbered pages of fairly technical material in concise form which may be a translation of prepared text material rather than a transcription of lectures.

The last 22 pages, also unnumbered, include miscellaneous reminiscent commentary from old-timers who remember the occasion. Included in these pages are four informal photographs of small groups, possibly members of the arrangement committee, in each of which Desmond is included. One shows them in a chauffeured touring car of about 1926 vintage with the top down, another in front of a palace-like structure, a third on a bridge or walk-way, all wearing heavy overcoats and felt hats, and a fourth in which they are relaxed, sitting on the floor, enjoying refreshments with very ornately attired geishas in attendance.

A full page illustrates a diploma or certificate of attendance which reads as follows: "American Optometrical College, Registered at the American Consulate General, Shanghai, China. This certifies that Kojiro Nishimura has attended a course of lectures in Optometry given at Osaka, Japan, February, 1926. In testimony Whereof the undersigned have affixed their signatures and the seal of the College at Shanghai, China, this 30th day of March 1926. Certificate No. 12 [signed] H.E. Heacock, President, M.C. Clark, Secretary, D. Desmond, F.S.M.C., D.B.O.A., Principal."

A metallic seal at the lower left corner reads: AMERICAN OPTOMETRIC COLLEGE, Registered November 192[last numeral indistinct].

The titles of Desmond's individual optometry lectures were as follows: optics, lens fabrication, decentration, dispensing, ocular anatomy, spectacle assembly, sight testing, visual acuity, instrumentation, ocular pathology, the fogging method, and motility testing. The supplementary lectures were on sales tactics, an optometrist's qualifications, and examination room management.

250 from all over Japan attended the lectures. Every aspect of optometry was covered. Included, for example, were retinoscopy, ophthalmoscopy, and ocular motility. In addition Desmond undertook to instill

the spirit of professionalism, emphasizing the importance of adequate scientific knowledge, honesty, and hard work. Altogether he made an impression, the impact of which many Japanese ophthalmic opticians and optometrists are still most appreciative of today.

The cited commemorative volume, incidentally, was forwarded to me by Ernest S. Takahashi, O.D., of Oakland, California. I, in turn, will forward it to the International Library, Archives, and Museum of Optometry.

A mysterious optometric unit:

It seems likely that many of our readers have seen old optometers which resemble the two illustrated in Fig. 1 below. These two happen to be in the optometry museum collection at Indiana University with no record of their origins. They had been donated by persons who themselves could provide no historical information beyond the fact that they were among the remaining effects of two deceased optometrists who themselves had inherited them from predecessors.

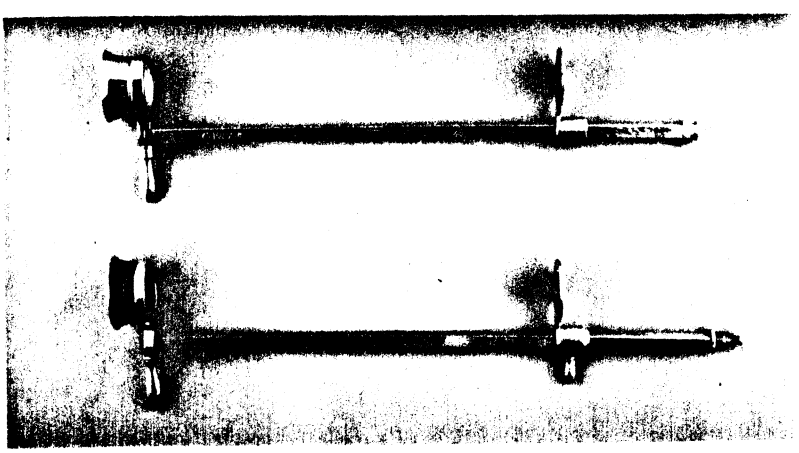


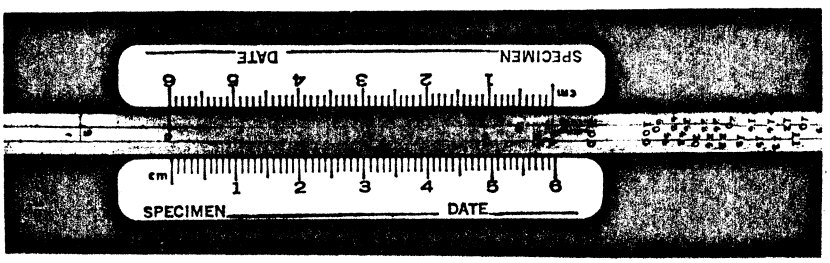
Fig. 1

I am quite certain that I have seen essentially identical optometers in historical collections elsewhere in years past, frequently enough to make the present two look very familiar. Each has the essential components of an optometer, namely, a rod having a numbered scale, a lens mounted at one end, and a target of letters and/or dots which can be slid along the full length of the scaled bar. The obvious and probably correct presumption is that the early sight tester or his examinee simply held the lens end of the bar close to the eye being tested while the target was moved slowly along the scale to its greatest distance of clear vision. The scale value would then indicate the power of the lens to be prescribed for distance.

A close examination of the scale of one of the optometers revealed to me quite surprisingly that the highest values were in the middle of the range and the lowest values at both ends, i.e., with values ranging from the closest number "3" to the mid-range number of "100", and then

from a second mid-range number "100" to the farthest number "7". Identified with the nearer scale is the word "CONCAVE" imprinted by means of a metal stamp on the vertical side of the bar, and similarly with the farther scale the word "CONVEX". The scale is shown in Fig. 2 with the "CONVEX" portion between a pair of ordinary 6 cm rules. Extending to the left of these two rules is the "CONCAVE" scale. Even in these poor reproductions it is apparent that the scales are nonlinear.

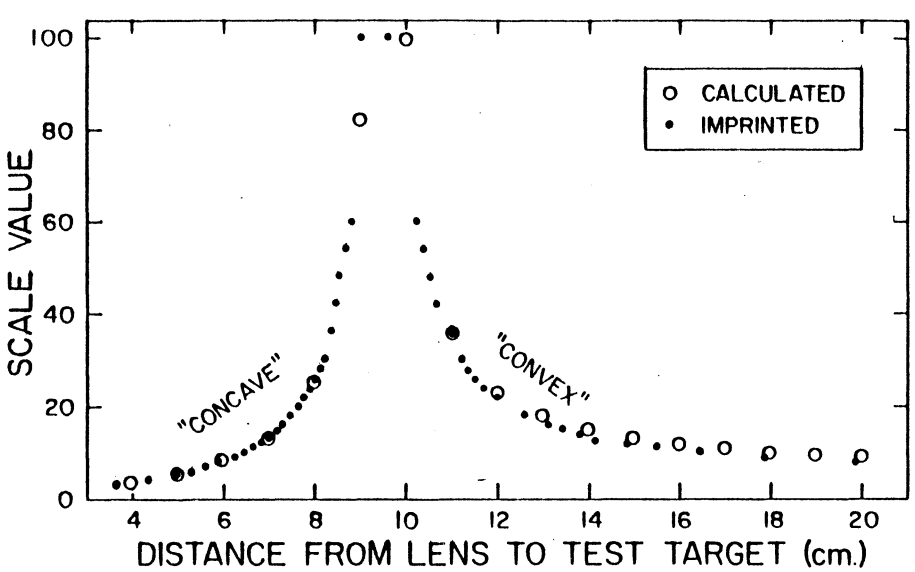
Fig. 2



In spite of the striking overall similarity of the two instruments, a close inspection reveals that they are not identical in most respects. Both are made of chromium plated brass, and it seems possible that the two were made by the same machinist, but none of the parts of one is interchangeable with its superficially similar part of the other. Not even the screws have the same thread. The stamp imprinted letters and numerals are not identical in size, and their alignment is conspicuously better on one than on the other. The eyecup of one is black-enameled and that of the other is chromium plated. There is no trademark or maker's identification. The threaded lens retainers in the eye cups are not interchangeable. The lens of one is missing and that of the other is a seven diopter spherical meniscus lens of a curvature which suggests that it may be a spectacle lens replacement. The two rods are of just slightly different length, each about 29 cm.

Practically identical however, differing only by random workmanship error, are the two scales, the units of which are numbered but not labeled. To try to make sense out of them and to derive the power of the missing lens I measured the distance of each numeral from the lens plane and plotted the results graphically. These scale values are shown as dots in Fig. 3. The two "100" scale values, one at 9 cm and the other at 9.6

Fig. 3



cm clearly indicate that the two curves approach infinity asymptotically between 9 and 9.6 cm, though the more distant "100" mark appears slightly misplaced in terms of fitting a smooth curve. I quite empirically decided that the missing lens must have been approximately 10.5 diopters, a rounded out reciprocal of a distance between .09 and .096 meters.

Obviously the seven diopter lens in the one of the two instruments is a misfit by someone who had less understanding of the scale than I do.

The reciprocal shapes of the curves suggest that the scale values are simply the focal lengths of spectacle lenses which would correct the refractive error as measured on the optometer. A few calculations quickly proved that they represented neither centimeters nor inches. I even explored the possibility of Austrian, Parisian, and Prussian inches, which differ slightly from the English inch. Finally, after a series of simultaneous solutions of equations from arbitrarily paired points on the graph to confirm my choice of 10.5 diopters as reasonable, I successively divided the calculated focal lengths of the indicated spectacle lenses by different constants to make them fit the curves better. The plotted circles in Fig. 3 show the results when the constant divisor is 2.0.

I think I might have gotten an even better fit by varying the 10.5 diopter lens by a tenth of a diopter and/or varying the divisor by a tenth of a unit, but I am confident that these are the limits. In fact my measurements are not significant to any greater accuracy.

This, then, means that the scale values for the focal lengths of the spectacle lens indicated by these optometers are in terms of a unit approximately 2 cm in length. Thus, a one diopter lens would have a focal length of about 50 such units, a two diopter lens about 25 units, and a ten diopter lens about five such units.

Was there once such a unit in use?

Subsequent to my writing the above my attention was called to two more superficially identical optometers among the accumulated items in the collection. The lens of one of the additional two optometers was missing, and the lens of the other was a four diopter plano-convex sphere! The back side of the sliding target piece of the latter had the imprint "N.A. BIXLER" in different size letters than the other imprinted letters and numerals, suggesting that Dr. Bixler probably added this himself, as he indulged in a number of mechanical hobbies. Many of his optometrically-related effects were contributed to our collection at Indiana University.

Further, each of the additional two optometers in the collection differed in various unimportant details from each other and from the first two described above. In other words the four superficially identical appearing optometers were certainly individually manufactured by a machinist, or by different machinists copying a model.

A decade of local society minutes:

Donated by Walter E. Marshall, O.D., of Indianapolis, Indiana, who in turn received them from Wm. D. Elson, O.D., retired, of Indianapolis, and who in his turn found them among the office effects of a predecessor, are a bundle of 34 x 21 cm. tear sheets, pre-numbered pages 1-18 and 25-96, of the handwritten Constitution and Code of Ethics of the Optometrical Society of Indianapolis, Indiana, and the recorded minutes of the monthly and a few special meetings held during the years 1919-1928. It is quite evident that meetings were not held every month. Also, no minutes were recorded in this notebook in 1923. The minutes of April 13, June 9, and August 3, 1921, were separately typed on "H.M. Cantwell" letterhead, suggesting that the book of minutes was temporarily unavailable.

Three contemporary pieces of correspondence, an invoice marked "paid", and a printed one-page flier extolling the virtues of optometry are included in the donation, which is now being forwarded to the International Library, Archives, and Museum of Optometry (ILAMO).

The minutes represent the recordings of seven successive society secretaries, H.R. Easterday in 1919 and 1920; H.M. Cantwell, Secretary pro tem briefly in 1921; D.D. Terrell in 1921 and 1922; G.R. Ledig in 1924; W.L. Van Osdol in 1925 and 1926; August E. Dryer in 1927; and Roy E. Denny in 1928.

Matters for discussion identified in the minutes included state optometric legislation, spectacle retailing by wholesalers, a "Fess Bill" in the U.S. Congress in the fall of 1920, enforcement of the Indiana optometry law, advertising policy, membership dues, publicity and public relations, optometrists' fees, office hours, opticians' rebates to oculists, discriminatory referrals by school nurses, and state fair optometry exhibits. Occasionally mentioned were the optometric lectures and musical recitals as parts of the meeting programs. It is interesting to note that the secretaries prior to Van Osdol in 1925 favored the use of the "Mr." instead of the "Dr." title in their identification of individual optometrists in the minutes.

The Greeks had the good word:

The Greeks had the word typhlos (Τυφλος) to mean "blind" or "lacking vision". In the Greek literature typhlos and its various derivatives were employed to connote dimness, darkness, nonperceptiveness, frustration, closure, bafflement, and the like. It also sometimes carried the connotation of physical closure, as in reference to a closed channel, the cecum, or a cul-de-sac, in the same sense as we use the word blind in "blind alley".

Dorland's Medical Dictionary, 1965, lists "typhlosis" as blindness, and Webster's Third International Dictionary, 1963, lists "typhlology" as "the scientific study of blindness, its causes, effects, and control; a branch of science that deals with blindness". The Random House College Dictionary, 1975, defines it similarly. All three editions of the Dictionary of Visual Science include both of these terms plus "typhloid. Pertaining to or having defective vision", and "typhlolexia. Word

blindness". The Report on the European Conference on Technical Aids for the Visually Handicapped, 1974, Bromma, Sweden, includes as essentially self-explanatory such related terms as "typhlodidactic", "typhlonaut", "typhlotechnical", and "typhlopaedic" in referring to instruction of the blind, a blind traveler, aids related to blindness, and blind children, respectively.

All of these etymological derivatives of typhlos seem to have been quite avoided, or at least routinely overlooked, in the literature of the ophthalmic field. Instead we have struggled with a variety of pertinent terms like blindness, low vision, subnormal vision, partially sighted, near-blind, visually handicapped, visually disabled, and sight-saving. These are often not only clumsy as two-word terms but have unpleasant or deprecatory connotations analogous to words like crippled, disfigured, and invalid. Why have we not utilized the very precise, unadulterated, and rather sophisticated Greek root typhlos in our nomenclature to identify those ophthalmic aspects that relate to visual limitations that require special optometric attention?

For example, would it really be coining a totally new term to combine typhlos and optikos into "typhloptic", analogous to "bioptic" and "entoptic", to pertain to the optics of blindness? The plural form "typhloptics" would then be analogous to "orthoptics" and "pleoptics", to identify the related corrective and rehabilitative procedures in optometric use.

Terminology having such exclusive and narrow definition should not easily acquire the distorted connotations of terms derived from ordinarily used words of broader meaning. An instance of this important distinction was the public identification of "infantile paralysis" by the less stigmatizing term "poliomyelitis" some decades ago. Other familiar instances of the general adoption of more refined and less objectionable terminology were "encephalitis" for "sleeping sickness", and "tuberculosis" for "consumption".

Extension of the word typhloptic to typhlopticist, analogous to opticist or physicist, could of course identify the provider or practitioner of typhloptics, though this designation might soon be shortened to typhloptist, analogous to orthoptist or even optist. Some will recall reading that Prentice once proposed the designation optist in preference to optometrist.

The more prevalent use of the Greek root typhlos in our nomenclature could undoubtedly lead to numerous easily compounded words in addition to those already cited above, quite impossible with our more typically used expressions. In fact a brief search in other lexicons uncovered "typhlophile: one benevolent to the blind" in the Second Edition, 1959, of Webster's New International Dictionary, and "typhlograph: an apparatus for assisting the blind to write evenly", and "typhlope: a blind worm", in the Oxford English Dictionary, 1971. According to the latter dictionary the typhlograph was described in 1896 as "a neat slope of hard wood with grooves on the surface" to guide the blind writer's hand.

All of the consulted lexicons, incidentially, give the vowel pronunciation of the y in the "typhlo" root the short i sound as in "physics" or "syntax" rather than the long i sound as in "typhoid" or "python".

Who was Frederick Booth?

Henry Knoll writes:

While browsing through our library, I came across a book which I'd never seen before, and it seems to me a lost gem. Perhaps some of the members of the Historical Society can tell us about the author.

The book, Radiant Energy and the Ophthalmic Lens, was written by Frederick Booth and published by P. Blakiston's Son and Co., Philadelphia, 1921. The author gives the following addresses at the end of his preface; La Porte, South Bend, and Michigan City, all of Indiana.

A brief introduction was written by Whitefield Bowers, A.B., M.D., Formerly Major, M.C., U.S.A. of Michigan City, Indiana. In the introduction Frederick Booth is referred to as Mr. Booth.

In his preface Mr. Booth includes the following: "I drew heavily upon the textbooks of the La Porte Public Library. The pleasant influence of this really efficient institution did much to lessen the drudgery involved in book writing.

"F.R. Warren, M.D. of Michigan City, Indiana, placed at my disposal his library which proved to be of much value, and for which I am very grateful.

"The F.A. Hardy Co., Chicago, Illinois, have been kind enough to lend some of their pictures. Also descriptive material for the Ophthalmometer and their instructions for taking spectacle measurements, for which I am truely thankful."

Figure 178 on page 167 is a photo of a "Geneva Combined Retinoscope and Ophthalmoscope". I've never seen or heard of this interesting looking instrument.

The book is written in the style of an encyclopedic dictionary, but not in alphabetical order. The material is arranged according to topics as follows: Anatomy of the Eye, Radiant Energy, Vision, Refraction of the Eye, Accommodation, Convergence, Cycloplegic, Visual Acuity and Subjective Test, Retinoscopy, Ophthalmoscopy, Transposition, Fitting Frames and Mountings and Writing Prescriptions, and Mathematics. The book has 211 pages and an index of 13 pages. There are 210 figures and 3 black and white plates. The plates illustrate a normal fundus, a myopic crescent and an annular staphyloma.

The contents of the book give no direct clues concerning the profession of the author, but I would judge that he practiced optometry. It would appear that he had medical friends. It would seem that the book was useful for teaching purposes; however, this use is not mentioned.

If any readers have information concerning Frederick Booth, please send it to Dr. Hofstetter so that it can be recorded in the Newsletter.

Struck with curiosity myself I checked the 1916 to 1922 editions of the Blue Book of Optometrists and found no Frederick Booth listed. A bit more revealing was Donald E. Thompson's "Indiana Authors and their Books, 1917-1966", 1974, page 63, which credits its information to the Indiana Historical Society and says,

> "Frederick Booth was born in Hamilton County, Ind., on Oct. 16, 1882. He was educated in the public schools of Indiana and attended Earlham College. A farmer until 1906, Booth later engaged in various jobs including bookselling, carpentry, concrete and steel construction, and newspaper and advertising work. There is some question that he is the author of the book...but no other information was found. Booth died in 1948."

The index card catalog of our university library then led me to "The Best Short Stories of 1922", edited by Edward J. O'Brien, in which a story by Booth, "The Helpless Ones" was reprinted on pages 49-69 from the December 1921 issue of Broom with a three-star rating, together with some biographical information supplementing that quoted above. Added to the identical vocational activities statement is the phrase, "...coincident with unceasing but slow creative effort, under material and psychic difficulties.", and "Has a novel in preparation. Lives in New York City."

A brief search of several other annual editions of Best Short Stories revealed that Booth had authored a three-star rated short story, "Supers", in the December 1916 issue of Seven Arts, reprinted in "The Best Short Stories of 1916", pages 52-58, with a critic's commentary on page 375. The three-star rating connoted "highest distinction" and a story "of somewhat permanent literary value".

The 1917 edition of Best Short Stories gave a two-star rating to his story "The Cloud-Ring", which appeared in the April 1917 issue of Seven Arts, and the 1920 edition gave a one-star rating to his "Duel" which appeared in the April 1920 issue of Ainslee's Magazine.

The California Optometric Association, Zenganrenme, et al:

In April of 1974 Ernest S. Takahashi, O.D., of Oakland, California, at one time Dean at the Monroe College of Optometry subsequent to a period of wartime internment in a Japanese-American Relocation Center, gave lectures on optometry to refracting opticians in Tokyo and Nagoya, Japan, as a guest of Fumio Morry and the AJOC (All Japan Optometric Consortium). Upon second invitation he lectured in Japan again in October 1976 in Tokyo, Oita City, Hiroshima, and Nagoya. In February 1977 he and others lectured to about 25 Japanese refracting opticians who attended the California Optometric Association Pacific Congress in Hawaii, an occasion now referred to as the First COA-Japan Bilingual Optometry Seminar.

Asked to come to Japan again in April 1978 as a Consultant in Optometry, and at almost the same time appointed to serve on the COA International Relations Committee and to help organize a second cooperative venture with the Japanese, Dr. Takahashi, with his colleagues, managed the Second COA-Japan Bilingual Optometry Seminar at the annual COA convention in Reno, Nevada, February 20-23, 1979, with a Japanese delegation of more than 40.

At the 1980 and 1981 COA conventions delegations of two Japanese optometric associations were in attendance and met with the COA International Relations Committee and other key personnel to plan future cooperative educational programs.

Then, on October 6-9, 1981, Zenganrenme (variously translated as All Japan Optometric and Optical Association, All Japan Refracting Opticians Association, and All Japan Optical Federation) launched what was called the First US-Japan International Visual Science Seminar in Tokyo, Kyoto, and Osaka. Invitations were extended to all persons in the Japanese optical and optometric community. Over 600 persons attended the six hour educational seminar. Lecturers included faculty members of the University of California School of Optometry, the Southern California College of Optometry, the Japan Optical Academy of Tokyo, and two Japanese optometrists who graduated from American schools.

This new continuous practical education program is reported to be in conjunction with the IIIrd. COA-Japan Bilingual Optometry Seminar in Anaheim, California, February 17-20, 1982, with 116 Japanese ophthalmic opticians in attendance. It is planned that future seminars will be triennial.

This account of an unusual international development in optometry is derived entirely from accumulated correspondence and documents more or less continuously suppled to me during the past nine years, a three centimeter thick file, by Dr. Takahashi.

History of Black Women in Optometry:

THE PIONEERS: A HISTORY OF BLACK WOMEN IN OPTOMETRY is the title of a paper prepared by one of my third year optometry students, Gloria A. Christopher, in a history of optometry course in November 1978. She graduated in 1980 and is now a member of the faculty of the Indiana University School of Optometry as Gloria Christopher Jennings, O.D.

In her paper she described the efforts of her mother, now Anita Christopher, O.D., of Tulsa, Oklahoma, to seek out a suitable profession for herself when she was a 16 year old senior at Booker T. Washington High School in Tulsa in 1945. At that age her mother's name was still Anita Myrtle Williams. The Alpha Chi Omega chapter of Alpha Kappa Alpha, a Black sorority, had sponsored a vocational guidance project on "The Choice of a Career" in which the winner of an essay contest would receive a one hundred dollar scholarship. Anita won. Today she is in practice with her husband, Charles E. Christopher, O.D. She is the third Black female optometrist to be licensed in the United States, and the first in Oklahoma.

Daughter Gloria's paper included a few bits of vital information on the first six Black women licensed to practice optometry in the United States, in chronological order, as follows:

1. Isabelle King, O.D., Northern Illinois College of Optometry, practiced in Chicago, deceased in 1974. Her father was an optometrist and her grandfather an ophthalmologist.

2. Alma Swinger, O.D., Monroe College of Optometry, deceased.

3. Anita Williams Christopher, O.D., Northern Illinois College of Optometry.

4. Ruth Peoples, O.D., Illinois College of Optometry, practicing in Chicago.

5. Velda Pandy, O.D., Illinois College of Optometry, practicing in Chicago.

6. Betty Robinson, O.D., Monroe College of Optometry, practicing with her husband in Minnesota.

Gloria credits much of her information to Amos C. Brown, O.D., of Chicago, Illinois, who has been compiling information on the history of Blacks in optometry for the National Optometric Association for eventual publication. She also borrowed the original contest-winning essay from her mother to show me, whereupon I prevailed on her to let me forward it to the International Library, Archives, and Museum of Optometry, Inc. for permanent safekeeping.

The essay is a 50 page document, the appendix of which consists of 20 of the responses she received from 26 of the 39 institutions and offices in the United States and Canada to which she had written. She had asked for information concerning opportunities for a young woman in the field of optometry and catalogs and application forms. Her bibliography included five pamphlets and three journals. She also credited much of her information to conversations with local optometrists, physicians, and friends.

Her closing paragraph, a single short sentence, was, "Optometry, then, is my chosen profession".

Earliest double monocular diplopia report:

The first report of double monocular diplopia as a sensory manifestation of anomalous retinal correspondence in postsurgical strabismus appears to have been that of D.M. Purdy in the Journal of General Psychology, Vol. 11, No. 2, October 1934, pp. 311-327. His own search of the literature suggested that Javal may have been the first to describe monocular diplopia, in 1865, as a manifestation of anomalous correspondence, but that none had described the double phenomenon, i.e., the appearance of two "falsely" projected images in addition to the two "normally" projected images of two dissimilar bright objects presented separately but simultaneously to the two eyes.

The subject was a university student with a convergent squint. He had been operated on twice in childhood and had vision correctable to 20/15 in each eye. The report covered a wide variety of experimental details including many haploscopic observations and much theoretical analysis, certainly a classic worthy of study by anyone interested in the sensory phenomena of anomalous correspondence.

Because I, myself, had encountered an instance of double monocular diplopia in the haploscopic investigation of a postsurgical squinter early in my career and described it to one or more colleagues I was advised, probably by Glenn A. Fry, that Professor Purdy had already described it. I was able to contact Dr. Purdy to get the above reference.

Professor Donald McLean Purdy was born on March 29, 1900 and obtained his A.B. degree at Cornell and his A.M. and Ph.D. degrees at Harvard. According to the 1944 edition of American Men of Science his academic services variously included Physics, Astronomy, and Psychology at Cornell, Princeton, and Harvard universities, at the universities of Kansas, Maine, and Washington (Seattle), and at Mills College. He was a Guggenheim Fellow in 1936-37. His postcard response to me came from "Medical Rehabilitation, V.A., Wadsworth, Kansas" on August 9, 1947. His American Men of Science entry identified his scientific interests as theoretical psychology and visual perception. He is not listed in the 1949 and 1956 editions nor in the most recent edition of American Men and Women of Science.

Another of Dr. Purdy's contributions to visual science was his 39 page chapter entitled "The Functions of the Receptors" in a book entitled "Comparative Psychology" by Edward L. Thorndike and 11 others, edited by F.A. Moss, 1934, and published by Prentice-Hall. Most of the chapter involved vision, including color and space perception, with 68 references, but none to himself. He was not included as an author in the 1942 revised edition of the same book.

Christiaan Huygens (1629-1695) reprinted:

Arthur G. Bennett reports glowingly in the January 2, 1982 issue of the Ophthalmic Optician, Vol. 22, No. 1, pp. 8-10, that the 22 volumes of Huygens' collected works have recently been reprinted. The complete set is priced at 4,425 Dutch guilders (ca. $1,800), with individual volumes at 200 guilders (ca. $80) each, available from Swets Publishing Service, Heereweg 347b, 2161 CA Lisse, Netherlands. Most of the work is in French, a fair amount in Latin, and other languages are included in some of his correspondence.

Volume 13, entitled Dioptrica, is over a thousand pages long and includes all of his writings on optical topics except for his Traité de la Lumiere.

Bennett cites several examples of visual optics from Huygens' Dioptrica to illustrate how comprehensively Huygens covered the optics of the eye. These included the optics of a reduced eye, a schematic eye, and a real eye, and the derivation of a thin lens formula.

Early coast-to-coast influence:

Another historical gem has been published in the September/December 1981 issue of Optometry Forum (University of California School of Optometry), Vol. 17, No. 5, page 5 under the caption "Historical Perspective." It is a long and persuasive letter dated July 24, 1917, from Professor James P.C. Southall, then in charge of the optometry curriculum at Columbia University, to Dr. Benjamin Ide Wheeler, President of the University of California, urging the establishment of a similar curriculum at Berkeley.

He pointed out that the courses at Columbia "were inaugurated in 1910 at the special solicitation of the Department of Education of the State of New York and in compliance with the optometry law of the state which was passed in 1909". He described in candid detail the oculist/optometrist controversy and the grossly inadequate training of both, stating that the need for better training had been recognized in Germany and to some extent also in Britain.

It is interesting that he made this reference to Germany less than a month after our first World War I troops had landed in Europe to fight the Germans. He seems to have been in Berkeley that summer, for he added, "I thought it possible you might wish to consult me in regard to this matter before I leave Berkeley next week."

Stereoscopic history:

The National Stereoscopic Association, Inc., P.O. Box 14801, Columbus, Ohio 43214, was founded in 1974, especially for those interested in history as recorded by the stereo photographer, or in uses of stereoscopy and in stereographic technology. Membership includes museums, libraries, and institutions as well as individuals. The Association publishes a bimonthly magazine, Stereo World, a copy of which was sent to me by OHS member Benjamin Nerenberg, O.D., of Los Gatos, California 95031, P.O. Box 760. It also sponsors the Oliver Wendell Holmes Stereoscope Research Library at the Canton Art Institute in Canton, Ohio.

Somewhat affiliated with the Association is "The Stereoscopic Society, American Branch" founded in 1893 as an association of amateur stereo photographers to further the art of stereoscopic photography. The Society edits a page or two in each issue of Stereo World.

The illustrations in the magazine certainly will remind the optometrist of many a stereogram in his orthoptics and visual training armamentarium. Advertisers offer such stereograms as collectors' items at prices ranging from $1.25 to $70.00 in the issue I have. Other advertisers offer to buy.

100 years of German optics:

Die Deutschen Gesellschaft für Mechanik und Optik (The German Mechanical and Optical Society) was founded in 1881, prompting a 100 year jubilee celebration by the Verband der Deutschen Feinmechanischen und Optischen Industrie e.V. (the German Optical and Instrument Industrial Alliance, Inc.) on September

30, 1981, with festivities at the state library in Berlin and a Senatorial reception in the German Parliament. The keynote speaker was the President of the Bundesverbandes der Deutschen Industrie (Federal Association of German Industries), Prof. Dr. Dr. Rolf Rodenstock, the distinguished head of the optical firm of the same family name founded by his father and uncle. Professor Rodenstock gave an account of the development of the German optical industry, all of which is included in a report of the anniversary in the November 20, 1981, issue of Deutsche Optikerzeitung, Vol. 36, No. 11, pp. 64-68.

An exciting leave!

Co-editor Douglas Penisten, enjoying a southern hemisphere summer leave from teaching, and from editing, wrote the following on January 10 on a picture postcard of Kilimanjaro-Tanzania, 5896 meters above sea level: "Greetings from Tanzania! Trip going very well. Spent time in Serengeti, Ngorongoro Crater, and Olduvai Gorge. Eight of us completed a 3½ day climb to top of Africa (Kili). Beautiful seeing the New Year sunrise from there despite a cold numb hand'. We are off next to Rwanda and Zaire, which will be three weeks of bad road! Hope you are keeping well. Give my best to everyone at the School. --Doug"

On porcine eyes and thighs:

Prosciuto, pronounced prō shōō´ tō, rhyming with no-shoe´ -toe, is a delicately spiced ham, carefully dried, perhaps by a suction process as the translation of the term suggests, treasured by gourmets. Only two groups of producers in Italy are presently granted a special seal of recognition by the Italian Government, one in Parma and the other in Friuli, but now three other groups, in Norcia, Modena, and Venice, demand the coveted seal on the strength of their own long traditions in the secret-formula preparation of prosciuto. The Norcia Prosciuto Consortium claim that their tradition was initiated centuries ago by celebrated cataract surgeons who practiced their surgical skills on pig bodies.

The history of the controversy is described in an illustrated article in the November 9, 1981, issue of the Italian magazine EUROPEO, pages 30-32. Not a reader of Italian, I asked Marshall Marvelli, O.D., of Galesburg, Illinois, to explain the involvement of the eye surgeons. He responded as follows:

> The magazine article is very interesting. I now have a good understanding of the production of Italian prosciutto.
>
> The part played by the Italian eye surgeons from the years 500 to 700 A.D. involved the use of the pigs in practicing cataract extraction and other types of surgery. In the process they developed a special way of dissecting the hind legs of the pig. This shank of the pig took the shape of a cello, which today is characteristic of prosciutto from Modena, Italy. They claim that their prosciutto is more savory, tender and also leaner than that of Parma or Venice. They believe their ham should get the government seal of approval. This method of production, along with the spices etc., is a secret which has been handed down from father to son for the last 1200 years.

By the way, prosciutto and eggs baked together in an oven is very delicious. We discovered this one day in Orvieto when we asked for ham and eggs. The above is what the waitress brought to the table.

The petitioners from Modena trace their tradition to 1500, and those from Venice claim to date back to the Venetian Republic of the same era, but the Parma group retorts "Our prosciutto was named by Cicero."

Sureau's optometer skiascope:

"Dr. Sureau has recently presented to the scientific world a most ingenious apparatus designed for ascertaining in a positive manner the nature and the degree of the different anomalies exhibited by the eye," states an article entitled THE OPTOMETER SKIASCOPE in the September 29, 1894, issue of Scientific American, Vol. 71, No. 13, page 196. Illustrated is an optical bench-mounted mechanism about a meter long with a chin rest and triple-disc lens wheels at one end and knobs, dials, and scales near the other end connected by rods and cables along the two-rail bench. Thus the skiascopist could remotely control from his scoping distance the lens power and cylinder axis inclinations in front of the eye being measured.

The unnamed author concludes, "...it is to be hoped that it will soon be utilized by the ministers of war and of the navy, in both of which branches of the service it will render surgeons great services through a great saving in time."

The article gives no further identification of the inventor than the name "Dr. Sureau", and the cited source of the article is simply "La Nature" with no date or issue specification.

Arachnids at war:

How Mrs. Nan Songer of near Redlands, California, coaxed her spiders to spin the silky web filament of less than .0025 mm diameter for use in the defense industry manufacture of camera view finders, surveying instruments, range finders, and target sights, is briefly described in the October 1941 issue of Science Digest, Vol. 10, No. 4, pp. 93-94 under the column captions of "Patents, Processes, Inventions" as a condensation of a previous article by Max K. Gilstrap in The Christian Science Monitor.

How the spiders were manipulated in England and their threads made into graticules for optical instruments is described in the October 1944 issue of Science Digest, Vol. 16, No. 4, pp. 93-94 under the same column captions as excerpts of an article in Discovery (London) as told by Frank Elliott "in a recent British broadcast."

Woops!

On page 5 of the last issue "Ron R. Paine" should have been "Don R. Paine", advises meticulous reader Dan Hummel.

And quite serendipitously and very late I myself (HWH) just discovered that the volume number for the April 1980 issue of N.O.H.S. was shown as II instead of 11. Obviously the Romans are still invading our territory.

H.W Hofstetter, Editor
D.K. Penisten, Editor-on-leave