

HINDSIGHT

Newsletter of the
Optometric Historical Society
243 North Lindbergh Boulevard, St. Louis, Missouri 63141, USA

Volume 28

October 1997

Number 4

OHS presentation at Academy meeting:

Jerry Christensen will be making a presentation at the annual OHS get-together during the December 1997 meeting of the American Academy of Optometry in San Antonio. His talk, entitled "Prentice's Profession," will consider Prentice's role in the development of optometry. His presentation will be at 5:00 p.m. on Saturday (December 13) in Room 9 at the Marriott Rivercenter. Check the Academy schedule when you arrive in San Antonio to confirm the time and room.

A French history of eyewear:

Histoire des Lunettes is the title of a very rare book authored by Le Docteur P. Pansier, d'Avignon, and published in Paris in 1901 by A. Maloine, Editor. The only copy I could track down through interlibrary loan service is one received in the Library of the Surgeon General's Office in 1904. It is so brittle and fragile that when it was received on loan for me at Indiana University I was restricted to reading only under personal surveillance of the rare-book librarian and after several instructions on how to turn its pages without damaging it.

Because I read French with only extreme difficulty I was hopelessly deprived of any practical access. I therefore requested a photocopy for the optometry library, and eventually a microfilm copy was received. From this a normal size printout was made for my use on 8½" x 11" paper, providing essentially a 150-page volume that I could take home for perusal with a French dictionary.

The book is as comprehensive as any I have ever seen on the history of eyewear. The text of 137 pages includes numerous footnote references and a supplementary bibliography. Another four pages accommodate an addendum of the author's prefatory comments. Nineteen figures and five plates document the text.

The table of contents itself conveys the breadth and depth of the book's contents. I am including my translation of the table here. It consists of 18 untitled chapters subdivided into 48 titled topics, as follows:

	page
Chapter I	
1. Anachronisms in artistry	1
2. Lenses and magnifiers among the ancients	2
3. Nero's emerald	5
4. Citations in evidence of the use of optical glass among the ancients	7

Chapter II		
5.	Optics and the theories of vision in antiquity	7
6.	Optics in the Middle Ages (Alhazen, Roger Bacon, Johannes Pithsanus, Vitellion)	12
Chapter III		
7.	The invention of spectacles	19
8.	The inventor of spectacles	22
Chapter IV		
9.	Spectacles in the 14th and 15th centuries	25
10.	Origin of the word <i>besicles</i>	27
11.	Spectacles in 14th and 15th century literature	27
Chapter V		
12.	Spectacles for myopes	29
13.	Comment on the explanation of spectacle lens effects	30
Chapter VI		
14.	Refractive errors in antiquity	34
15.	Refractive errors in the Middle Ages and into the close of the 16th century	36
Chapter VII		
16.	The discoveries of Kepler: The various 17th century theories	39
17.	The application of spectacles according to Daza de Valdes	42
Chapter VIII		
18.	Spectacles for strabismus	51
19.	Spectacles after cataract surgery	54
20.	The misapplication of spectacles and the ignorance of 16th and 17th century oculists	55
Chapter IX		
21.	Spectacle fabrication; famous spectacles	58
22.	Spectacles on medallions and coats of arms	62
23.	Spectaclemakers' guilds in France	62
Chapter X		
24.	Refractive errors among those treated by 18th century oculists	65
25.	Disorders of accommodation	67
26.	Optometric determination of the lens	68
27.	Lens quality; need and use of spectacles	70
Chapter XI		
28.	Counterindications in myopia and farsightedness	71
29.	Fashion and spectacles in the 18th century	72
30.	Types of spectacles	73
Chapter XII		
31.	Protective lenses	74
32.	Colored lenses	76
Chapter XIII		
33.	English opticians in the 18th century: Ramsden, Pierce, Dolland, Adams	80
34.	Spectacles among the myopes and the farsighted following English schooling at the close of the 18th century	81
35.	Spectacles for cataracts; the spectacle mania	84
36.	Frames in use. Spectacles with diaphragms and colored lenses	85
Chapter XIV		
37.	Ocular dioptrics in the first half of the 19th century	87
38.	Various spectacles, eye-glasses, lorgnettes or monocles, so-called Franklin spectacles, spectacles with superimposed lenses, spectacles for dissection, stenopaic glasses, spectacles for driving	98

Chapter XV

39.	Lenses in use in the 19th century, periscopic lenses, astigmatism and cylindrical lenses, achromatic lenses, prismatic lenses, hyperbolic lenses	103
40.	Lens numeration	110
41.	Lens fabrication	112

Chapter XVI

42.	Colored lenses and protective lenses	115
43.	Therapy by colored lenses	119

Chapter XVII

44.	Therapy by lenses	120
45.	Charlatans and charlatanism	123

Chapter XVIII

46.	Contact lenses	129
47.	The artificial cornea	130
48.	Surgical treatment of myopia and farsightedness	132

H.W H.

Licensing board viewpoints:

John D. Robinson, O.D., of North Carolina sent me a copy of his keynote address at the 75th anniversary meeting of the International Association of Boards of Examiners in Optometry (the IAB) in June 1994. He had been in practice 40 years and had served 26 years on the North Carolina state licensing board with 22 years as either an officer or trustee of the IAB. His remarks included a somewhat rambling reminiscing account of optometric events that stood out in his memory during his years of involvement. It was of more than ordinary interest to me because the time period coincided with that of much of my own career experience in optometry. My viewing bias would of course be that of an educator while his would be that of a regulatory board member.

He pointed out that early IAB records dating back to 1919 showed "an intense interest among the delegates of the IAB in both the scope and the quality of optometric education, in the preparation of optometric students in the area of diagnosing ocular disease, and moving toward a more uniform system of examinations." He said that the minutes display a consistent and deep concern that "by giving up their own written examinations [to a national board] they (the state boards) would be unable to weed out those individuals whom they considered as likely 'commercialist' or 'unethical' practitioners."

Then referring to issues and events during his own career and tenure, Dr. Robinson mentioned first the controversial resolution passed in Seattle, Washington, in 1954 that stated in its first resolve "that it is the stated policy of the American Optometric Association in convention assembled that the field of visual care is the field of optometry and should be exclusively the field of optometry." He credits Jimmy Palmer as having "a big hand in getting the resolution passed," but noted that Palmer did not advocate any use of drugs by optometrists.

Robinson added parenthetically that the resolution was deleted in 1969. He mentioned, however, some of the interim hostilities precipitated by the 1954 American Medical Association resolution "declaring optometry a cult and declaring that the teaching by physicians of optometrists in schools and colleges was unethical." He also attempted to describe the emerging shift of attitude among optometrists as to the use of drugs for diagnostic and, later, therapeutic purposes. The 1959 AOA premise that "The treatment of pathological conditions and eye surgery is acknowledged by optometry to be the field of medicine" was "retired and archived at the AOA annual meeting in 1980 in Denver, Colorado." The several remaining pages of Robinson's keynote address are devoted to the gradual emergence of the National Board of Examiners in Optometry as a major entity in licensing.

Because the speech as a whole was obviously not prepared with publication in mind, nor as an historical theme, and it lacks the appropriate referencing and documentation of resources for an historical review, it is not being reproduced in *Hindsight*. The copy at hand, however, will be forwarded to ILAMO for the archives.

H.W H.

Ophthalmology history:

A 394-page book published in 1966 entitled "The History of Ophthalmology" and edited by D.M. Albert and D.D. Edwards, was reviewed in the September, 1997 issue of *Optometry and Vision Science* by O.H.S. member Jay Enoch. Enoch notes that the primary emphasis of the book is the development of ophthalmology as a surgical and medical specialty. One of his favorite aspects of the book is the presentation of profiles of notable ophthalmic pathologists and ophthalmologists. An important contribution to the history of ophthalmology is coverage of important women in ophthalmology.

Enoch was disappointed in the book's chapter on optometry. On page 303 of the book it is stated that "Optometry did not arise from a single mode of thought or invention, and it did not follow a single historical path to the present; thus a comprehensive story of the development of optometry is not considered here."

D.A.G.

On the nose:

This is the key phrase of a 12-week (October 15, 1997 to January 11, 1998) exhibition of *Spectacles and Other Optical Fashions* at The New York Historical Society, 170 Central Park West, New York City. The display features five themes: (1) Spectacle Fashions, (2) The Technology of Frames and Lenses, (3) "Four-Eyed" Personalities and Celebrities, (4) Gender and Eyewear Fashion and Acceptances, and (5) The Optical Trade in New York from the Late 18th Century to Now.

H.W H.

O.A.I.C.C. notes:

The April 1997 issue of *Ophthalmic Antiques*, No. 59, though devoted mainly to the interests of collectors, includes a number of items of optometric historical significance. An article by J.S. Pointer on pages 4-7 is entitled "The Pound in Your Pocket and the Glasses on Your Nose," subtitled "700 Years of Reading Spectacle Prices." On a graphical illustration of the population of England and Wales and the daily wage of an adult male building craftsman from 1276 A.D. to 1996 A.D. he plots six examples of the contemporary retail price of reading spectacles in the years 1545, 1804, 1826, 1951, 1976, and 1996. The graphical conformity of the three sets of seemingly unrelated data is surprising. The author discusses the potential factors and circumstances involved and invites readers to submit any additional discoveries of historical spectacle costs they come across.

On pages 8-9 Derek Davidson describes some interesting business details of several London opticians of the 17th century.

Editor MacGregor reviews two books. One is *The Ophthalmoscope Part 1* by Alfred Schett, 1996, and the other is *The Eye, Vision and Ophthalmology on Postage Stamps* by Frederick Blodi, 1986. Both books are published by Wayenborgh.

On pages 12-13 in an article entitled "The Oculists of Myddfai" Colin Fryer calls attention to some of the legends of the 13th and earlier centuries of the village of Myddfai in the ancient region of Dyfed, now Pembrokeshire, in southwest Wales. Among the numerous medical remedies, magical potions, and charms the most frequent formulae and treatments were for the eyes.

H.W H.

Eyeglass iconography:

A book with the punny title "A Spectacle of Spectacles" hardly suggests a theme or level of sophistication one would ordinarily expect from the Carl Zeiss Foundation in Jena (Carl-Zeiss Stiftung, Jena, East Germany). The book's contents, to the contrary, reveal a thoroughly documented iconographic study of centuries of eyeglasses and their depiction as incidental details in the contemporary classic arts. The hardcover compendium is in fact a well illustrated 178-page catalogue of the exhibition of the same title first shown in the United Kingdom at the National Museums of Scotland in Edinburgh in 1988-89 (just prior to the dismantling of the Berlin Wall).

Reproduced are 77 graphic works dating from the 15th century, each including one or more pairs of spectacles. Shown in parallel chronology are 108 photographs of eyeglasses and spectacle cases, European and Asian. Catalogue details are provided in the index of exhibited items.

Edited by Wolf Winkler, the book is copyrighted 1988 as the "Edition Leipzig," a translation from German, and published by Druckerei Fortschritt Erfurt. The

catalogue is complemented by a brief history of the Zeiss Foundation by Joachim Töppler of the optical museum in Jena, a well documented history of "Spectacles Over Seven Hundred Years" by G. L'E. Turner of Imperial College in London, England, and an essay entitled "Eyeglasses and Art" by Claus Baumann of Leipzig.

The theme of the exhibition, and therefore of the book, especially as explained in Baumann's essay, is the complex and sometimes oxymoronic role of spectacles in the classic arts. They include the graphic, sculptural, performing, and even literary arts. Anachronisms do occur, as, for example, the portrayal of Moses with eyeglasses. Not only may spectacles convey their utilitarian role as optical aids but may also be employed by the artist to symbolize fashion, social rank, wisdom, learning, personal importance, hilarity, malignity, vanity, shortsightedness, blindness, sight, terror, age, perspicacity, foolishness, etc.

All of these functions are exclusive of the role that the classic arts have played in enabling us to formulate a history of spectacles themselves in that the artist would normally depict spectacles as contemporarily known to him or her. Finally, and for the same reason, the artists' depictions illustrate the artwork in spectacle design. Spectacle frames, and especially spectacle cases, due to their conspicuity as wearing apparel or personal accessories, have served as media for miniature decorative art from their beginning to today. The interpretations of such clues tell us much about the history of optometry as well, perhaps more than do any other resources.

H.W H.

Plastic ophthalmic lenses:

The emergence of plastic as a significant medium for ophthalmic lenses is described in the fascinating account of the origin and development of the Armorlite Company under the direction of optometrist Robert Graham as reported by Joseph Bruneni in the January 1997 issue of *Frames Lab Talk*, pages 18 and 20.

H.W H.

Extramission theory persists:

A brief editorial commentary on page 10 of the April 1997 issue of the *Ohio State Alumni Magazine*, Vol. 88, No. 7, tells us that "at least a third of college students surveyed in a recent series of studies believed that something such as rays or waves emanates from the eyes during the act of seeing." In disbelief Professor Gerald Winer conducted more than 20 studies using various techniques. In response to a simple question about whether anything leaves the eye during vision, 49% of first-graders, 70% of third-graders, 51% of fifth-graders, and 33% of college students gave the wrong answer. The extramission theory of vision dominated scientific thinking for many centuries prior to the Renaissance but has been rejected and ignored by scientists for centuries since.

H.W H.

Pol Pot and spectacles:

"In Cambodia, Pol Pot (leader of the communist Khmer Rouge forces) encouraged the persecution, torture, and murder of everyone who wore glasses," said author Clive James on page 50 of the April 22, 1996, issue of *The New Yorker*, Vol. 72, No. 9, in a several-page article entitled "Blaming the Germans." The isolated assertion was unaccompanied by any indication of its source. The immediate context merely implied the whimsical nature of certain aspects of mass cruelties.

I immediately wrote Mr. James c/o *The New Yorker* to request a reference or resource documenting his assertion of Pol Pot's apparent caprice. I received no response. A second request to the editorial office several months later netted merely a London address for Mr. James. A third request directed to Mr. James in London has elicited no response to date, seven more months later.

Was Mr. James' assertion itself merely a whim?

H.W H.

Lest we forget:

"Charles F. Prentice, Opticist" is the title of a well written article by Joe Bruneni in the July, 1997, issue of *Lab Talk* (a publication of Frames Data, Inc.), pages 16-17, describing the personality and role of Prentice in the professionalization of American optometry during the late years of the 19th century. No references are cited but the familiarity of many of the anecdotal details suggests that Bruneni had access to Prentice's "Legalized Optometry and Memoirs," of which only 200 copies were published upon his retirement in 1926. Bruneni may also have had access to the *Optical Journal*, which was founded in 1885, essentially the only serial optometric publication of that era in America. So, he tells a story that is relatively unfamiliar even to today's optometrists, but well worth reading.

H.W H.

AOA history:

"The American Optometric Association's First Century" is the title of an 80-page, glossy paper covered, magazine size (20.5 x 27.5 cm) booklet dated June 11, 1997. Copies were distributed to AOA members and presumably to countless other persons and organizations readily classified under the general rubric of "friends and colleagues." Except for as much as 10% devoted to profession-related and congratulatory advertisements, the text, including a few photographs, provides a mass of historical information that otherwise is quite buried in organizational files, archives, minutes, memoranda, and memories of older individuals who happened to have participated in, or observed, historically relevant events. So it is significant that the principal author and editor of this document was Robert A. Koetting. He may well be the most directly informed living optometrist on AOA development, not only because

he and/or his father had almost daily touch with the AOA headquarters for most of this century's years, but also because they both assumed leadership roles throughout their consecutive careers. The 40 pages dealing specifically with AOA history shows evidence that Koetting relied heavily on the resources of the International Library, Archives, and Museum of Optometry (ILAMO) for factual accuracy. The interpretations of their significance, however, suggest the Koetting depth of optometric overview.

The next 25 pages are brief summaries of three sections of the AOA and 25 national and regional organizations with optometrically related missions. These were written by designated representatives to identify briefly their complementary missions, roles, and historical contributions.

The last several pages chronologically list the names of all past AOA presidents and winners of various AOA awards and recognitions to acknowledge their roles in developing the organization during the 20th century.

The only disappointment I would express is that the format of the document is that of a slender booklet rather than a hardcover book, or even as a supplementary issue of the *Journal of the American Optometric Association*. Slender booklets tend to disappear rapidly and rarely get referenced, cited, catalogued, or indexed in a variety of directories as do the book and journal forms of publication. I trust that at least ILAMO and the institutional libraries and archives will preserve copies for progeny.

H.W H.

* * *

Managing Editor and
Contributing Editor:

David A. Goss
School of Optometry
Indiana University
Bloomington, IN 47405
U.S.A.

Contributing Editors:

Henry W Hofstetter
1050 Sassafras Circle
Bloomington, IN 47408
U.S.A.

Douglas K. Penisten
College of Optometry
Northeastern State University
Tahlequah, OK 74464
U.S.A.