HINDSIGHT

Newsletter of the
Optometric Historical Society
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2005 OHS Board Members and Officers:

Listed below are the OHS Executive Board and officers for the year 2005. The year of expiration of each Board Member's term is given in parentheses.

President..... Jay Enoch (2006)
Vice President..... Chuck Haine (2008)
Secretary-Treasurer..... Bridget Kowalczyk (2008)
Trustees..... Jerry Abrams (2005)
Walter Chase (2006)
Doug Penisten (2007)
Melvin Wolfberg (2005)

Call for nominations:

The terms of Board Members Jerry Abrams and Melvin Wolfberg will expire at the end of this year. Please submit your nominations for these two Board positions by June 15, 2005, to:

David A. Goss, Hindsight Editor
School of Optometry
Indiana University
Bloomington, IN 47405 USA.

OHS members who receive at least three nominations and agree to serve on the Board will have their names placed on an election ballot to be mailed later this year with a copy of Hindsight. Self nominations are welcome and encouraged.

Jay Enoch's Column:

"The Ether Dome"

In October, 2004, I had opportunity to attend a Festshrift honoring a good friend, Prof. Robert Webb of the Schepens Eye Research Institute, and the Wellman Center for

Photo-Medicine, Massachusetts General Hospital, all affiliated with Harvard University, Boston, MA. A fine series of talks on all sorts of new and emerging means of "Seeing Inside" the eye and human body were presented.

At lunch one day during the meeting, Dr. Eli Peli, a well-known optometrist associated with the Schepens Laboratories, called my attention to "The Ether Dome" at Massachusetts General Hospital (MGH). MGH is the clinical core of Harvard University Medical School. Oddly, while I have been to the institution quite a number of times, I had never heard of the Ether Dome. Eli took me up there, and I was absolutely fascinated when I saw it. [The first time I visited this great medical center was in the summer of 1949, having just completed my first year in optometry school. Prof. George Smelser, for whom I worked at Columbia University, sent me to work for much of that summer at the Howe Laboratory located in the Massachusetts Eye and Ear Infirmary. The latter was then headed by Prof. David Cogan. Dr. E. Kinsey kindly took me under his wing.]

Lest I get diverted, I return to the historic "Ether Dome". In 1811, the Massachusetts State Legislature granted a charter for the Massachusetts General Hospital (MGH). In turn, it became affiliated with Harvard Medical School. This was the third hospital in the United States. It followed the Pennsylvania Hospital (1756), and the New York Hospital (1791). The Bullfinch Building of MGH (named after the architect, Charles Bullfinch) admitted its first patients in 1821. The "Ether Dome" is the surgical facility or suite located at the top-center (4th floor) of this classic building fronted by eight great ionic columns. The dome itself rotates about the floor area reserved for surgery. In turn, centered on the same point is a steep multi-layered theater with tiered seats and desks arranged in a semi-circle enabling observers and students to watch the proceedings taking place below. The massive dome has a large rectangular window covered with adjustable slats designed somewhat like a Venetian blind. The massive dome could be rotated (!) and this window could be located optimally in order to follow the sun around its path during the day in order to illuminate continually the surgical field. The slats controlled the amount of light admitted. Apparently four strong men held the patient down during a surgical procedure.

Clearly, surgery was quite traumatic for the patient. On October 16th in 1846, a dentist, Dr. William T.G. Morton, assisted a co-founder of MGH, Dr. John C. Warren, in surgery. Morton had discovered ether for anesthesia and developed a simple delivery system for its use during a surgical procedure. The patient had a tumor of the neck (recorded in a painting in the surgical suite). Warren stated of Morton, "to whom history accords credit for the courage and imagination to demonstrate the chemical's properties in public," to administer the ether with his own apparatus. Within a year of this demonstration, ether was in use worldwide for this purpose. As one writer stated, one can almost hear Morton saying, "Your patient is ready, Sir.", and Dr. Warren's words at the conclusion of the historic operation, "Gentlemen, this is no humbug!"

Having applied ether often to rodents during surgery, I found it easy to apply, it yielded a quite rapid response, and it was quite easy to control. We used to make our

own cone-shaped applicators filled with cotton. At the Ether Dome, there are glass, metal, and wire mesh applicator devices used early in ether anesthesia. There are other important historical displays as well.

Some years later, Joseph Lister of Scotland introduced antiseptic surgery. This advance was introduced to Massachusetts General Hospital in 1859 by Dr. John Collins Warren, the grandson of the co-founder of MGH in the same amphitheater. The Dome was used for surgery until 1867. Today it is a historical monument, it contains a number of interesting museum elements and memorabilia, and it is still used for lectures and rounds at MGH. As the Michelin folks would say, it is worth a visit!

As a sidebar, we were put up in The John Jeffries House, a Bed and Breakfast Inn, 14 David G. Mugar Way, Boston, MA. Basically, it is located pretty much at the intersection of Charles and Cambridge Streets. Just out front is a T train stop and almost across the street is to be found the Mass. Eye and Ear Infirmary. The Jeffries House is located near the foot of Beacon Hill, and on nearby Charles Street one finds many lovely antique shops and some fine restaurants. I mention this because Dr. John Jeffries along with Dr. Edward Reynolds founded the Massachusetts Eye and Ear Infirmary (MEEI) *at this location* in October, 1824. It was originally named "the Boston Eye Infirmary". In 1827 it was incorporated under a State Charter. It outgrew its facilities in 1909, and a house for nurses and domestic servants was constructed in its stead. With renovation, this revamped building became the John Jeffries House in 1987. A new structure was built for the Mass. Eye and Ear Infirmary at its current location, but it looked very different at the time I first visited the MEEI than it does today. The current building required imaginative and complex re-structuring and expansion.

J.M.E.

Another entry for the list of books on the history of optometry:

In the October, 2004 issue of Hindsight, we published a list of books on the history of optometry. Along with that list was a request to submit titles of additional books that may have been overlooked. Ted Grosvenor kindly sent me a copy of a book that was not on the initial list.

The title of the book is *History of the New Zealand Optometrical Association (Incorporated) 1930-1980.* The author is Frank O. Davis, and it was published by the New Zealand Optometrical Association in 1980. The book is in a nine inch high by six inch wide hardcover format. There are a preface, a foreword, twelve chapters, and three appendices in the book's 196 pages. The titles of the twelve chapters are: The Formation, The Early Years, The Opticians Board, The Institute's First Ten Years, War and Post-War Optometry in Military Affairs, Into Peace and the Fifties, The Changing Face of Optometry, Recent Years, Past Presidents and Past Secretaries and Triple Generation Families, The Supply Houses, The Contact Lens Field, and The Struggle for Education. Photographs in the volume include group pictures at seven association

conferences between 1925 and 1970, pictures of four past presidents of the association, and a picture of the author.

The author Frank O. Davis was born in 1912 and trained first as a pharmacist and later qualified as an optometrist in 1934. After continuing studies in optometry in London, he returned to New Zealand to practice until his retirement in 1977, with an interruption for military service in World War II. He died in December of 1979 before the publication of this book. A few minor changes were made in his manuscript as others did the proof-reading work after his death.

I assumed that Ted Grosvenor received a copy of this book because of his work as the first faculty member and director of the optometry school at the University of Auckland. When I looked to see what the book had to say about his work there, I found the following: "Dr. Theodore Grosvenor, Associate Professor at the University of Houston, Texas, was appointed to fill the position of Senior Lecturer and arrived in early 1964. He, in his quiet genial way, immediately immersed himself in the task of preparing for the 1965 intake and also in the uncharted problems of fitting into a strange land and making rapport with the Association and all its members" (page 173). The first optometry class started with seven students in 1965. The first graduates, five in number, J. E. Anderson, M. J. Firth, I. K. Laird, D. O. Niell, and P. R. Rose, received their diplomas in 1967. In 1968, a second full time lecturer, P. D. Skeates, was added to the optometry faculty. Page 175 reports the following: "The end of 1969 was overshadowed by the departure of Professor Grosvenor to the University of Waterloo in Canada, and the Association lost a keen, enthusiastic collaborator in affairs optometrical at University level. He has proved to be a truly worthy pioneer."

The title of the book implies that the history starts with 1930. However, the first few chapters detail some events leading up to the formation of the association in 1930.

D.A.G.

Looking for information on Edward C. Bull, spectacle collector:

David Fleishman, author and compiler of the remarkable website antiquespectacles.com (described in the July, 2004 issue of Hindsight), wrote to me asking if I had any information on the optometrist and spectacle collector Edward C. Bull. Fleishman provided me with the information he has gleaned so far about Bull, and I have found a few brief mentions of him or his collection in earlier issues of Hindsight.

Bull was born in Hamilton, Ontario in perhaps 1859 or 1871. He started collecting spectacles in 1889 and amassed a large collection, much of which was later acquired by the Medical Sciences Division of the National Museum of American History. Bull died in February, 1931, while he was working at the Los Angeles Museum of Natural History.

Bull practiced optometry in Pasadena, California. In David Fleishman's email message to me, he attached a copy of the June, 1912 Doctor of Optometry diploma to Edward C. Bull from the Southern California College of Optometry and Ophthalmology, in Los Angeles, California. However, Bull does not appear in the index of James Gregg's book, *Origin and Development of the Southern California College of Optometry, 1904-1984,* nor does he appear in the list of 1912 graduates on page 511 of Gregg's book.

Bull published an article on St. Jerome, entitled "The Patron Saint of the Opticians," in the May 18, 1911 issue of *The Optical Journal and Review.* Bull also made a presentation entitled "A Voyage into the History of Spectacles," at the Educational Congress of the 1926 American Optometric Association convention. In an entry in the American Encyclopedia of Ophthalmology on the "History of Eyeglasses and Spectacles" (volume 7, pages 4894-4953, 1915), author Emory Hill gives credit to Bull for help in its preparation.

Edward Bull had an older brother who was a famous ophthalmologist in Paris. The elder Bull published a book in 1870 and had instruments named after him. He was on the staff of the ophthalmology laboratory at the Sorbonne along with Landolt and others under the direction of Javal.

Can anyone provide more information on Edward C. Bull – his time of birth, his training, his career, other accomplishments or publications? And can anyone explain the existence of the diploma but the absence from Gregg's history? If anyone can come up with additional information, I will pass it on to David Fleishman and I will publish it in a future issue of Hindsight.

D.A.G.

<u>More Early Prints of Eyeglasses</u>:

In the July, 2003 issue of Hindsight, we mentioned the article "early Prints Depicting Eyeglasses," by Letocha and Dreyfus, in the November, 2002 issue of Archives of Ophthalmology (volume 120, pages 1577-1580). Chuck Letocha followed his earlier article up with a note entitled "More Early Prints of Eyeglasses" in the November, 2003 issue of Archives of Ophthalmology (volume 121, pages 1664-1665). Letocha noted that he "learned of 3 additional examples of prints from before 1500 from Udo Timm of Hannover, Germany." The three prints, originally printed between 1480 and 1498, are reproduced in Letocha's publication.

D.A.G.

History of the optometry school at Indiana University:

The history of the optometry program at Indiana University has been detailed in two issues of the Indiana Journal of Optometry. Efforts to found the school began in the 1940s. The school was established in 1951 as a Division of Optometry. It became a School of Optometry in 1975. The change in its administrative status within the university from Division to School was taken as a break point for the two parts of the program's history. The history of the Indiana University *Division* of Optometry appeared in the Fall, 2003 issue of the Indiana Journal of Optometry (volume 6, number 2). It was described in the October, 2003 issue of Hindsight.

The history of the Indiana University *School* of Optometry appears in the Fall, 2004 issue of the Indiana Journal of Optometry (volume 7, number 2). Some of the articles cover the entire history of the program, not just its time as a School. The contents of the Fall, 2004 issue are as follows:

An overview of pivotal events and significant changes in the Indiana University School of Optometry from the 1970s to the present, by David A. Goss, Paul A. Pietsch, Daniel R. Gerstman, and Richard M. Meetz (pages 22-31)

A history of the IU School of Optometry's clinics, external rotations, and residencies, by Steven A. Hitzeman and David A. Goss (pages 32-35)

The changing student body at the IU School of Optometry, by Susan Kovacich (page 36)

Books by Indiana University Optometry faculty, by David A. Goss (pages 37-42)

History of the two-year Associate of Science degree program at the IU School of Optometry, by Sandi Corns Pickel, Clifford W. Brooks, and Jacqueline S. Olson (pages 43-47)

History of binocular vision and vision therapy clinical services and curriculum at the Indiana University School of Optometry, by David A. Goss (pages 48-57)

The Ocular Disease Clinic at the IU School of Optometry, by Victor Malinovsky (page 58)

History of the Optometry Library at Indiana University, by David A. Goss and Douglas K. Freeman (pages 59-62)

History of the Fellowship of Christian Optometrists, by Susan Kovacich and Clifford W. Brooks (pages 63-64)

Survey of alumni concerning student life at the Indiana University School of Optometry. By Greg Hubertus and David A. Goss (page 65)

Optometry school application process and student tracking, 1978-2003, by Jacqueline S. Olson (pages 66-67)

List of graduates of the physiological optics/vision science graduate program, 1956-2003 (page 67)

List of full-time faculty members (page 68)

Number of graduates in each class (page 69)

Chronology of Indiana University School of Optometry history (pages 70-72)

I have a few extra copies of these journals. If any OHS member would like a copy of one or both of these issues, please contact me.

D.A.G.

Marius Tscherning (1854-1939):

"Marius Tscherning (1854-1939): his life and work in optical physiology" is the title of a paper published by Mogens Norn and Ove A. Jensen in the October, 2004 issue of *Acta Ophthalmologica Scandinavica* (volume 82, number 5, pages 501-508). Tscherning was born in a small Danish village where his father was a schoolmaster. Tscherning studied medicine at the University of Copenhagen and graduated in 1878. He trained in ophthalmology with Edmund Hansen Grut in Copenhagen. Tscherning was inspired by Grut to do a study of the prevalence of myopia in over seven thousand Danish men examined for military service in 1880-81.

Tscherning then joined the ophthalmology laboratory of Emile Javal at the Sorbonne University in Paris and stayed there for 26 years. Many of his most famous works were completed there. He used a gigantic perimeter that required the use of ladder for movement of targets in a study of Listing's Law. In 1894, he published a French translation of Thomas Young's works along with his comments and results of his own related studies. Tscherning modified Young's optometer to conduct studies of refraction, accommodation, and aberrations. He was also known for his studies of aberrations of spectacle lenses.

Tscherning built a new instrument, an ophthalmophacometer, for investigation of the Purkinje images. With it he studied accommodation and the orientation of the crystalline lens within the eye. His primary subject for many of his studies on accommodation was his wife, Arnak, also from Denmark. Tscherning developed a theory of accommodation somewhat different from that of Helmholtz.

Tscherning also studied entoptic imagery and did post-mortem examinations of eyes. He examined patients in various clinics in Paris. In 1901 Tscherning became director of the ophthalmology laboratory at the Sorbonne when Javal went blind from glaucoma. The article notes that Tscherning followed Javal's methods of treatment for strabismus "with occlusion of the normal eye until fusion was obtained, followed by surgery and finally exercises with a modified Wheatstone stereoscope and Tscherning's cards for fusion." Tscherning also did experiments on color vision. In 1900, his book *Physiologic Optics* was published in English.

In 1910, Tscherning went back to Denmark and was appointed professor of ophthalmology at the University of Copenhagen. In 1912, he published the first Danish language ophthalmology textbook for medical students. Tscherning's years in Denmark, before and after his retirement in 1925, involved experimentation on various topics including illumination and dark adaptation.

The article also mentions various of Tscherning's instructors, collaborators, and students. The reference list includes a number of Tscherning's publications. The 11 figures in the article include pictures of Tscherning and some of his equipment and a drawing by Tscherning.

D.A.G.

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