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The OHS mission:

"It is depressingly clear that we Americans are largely ignorant of our history," says Robert McC. Adams, Secretary of the Smithsonian Institution, in the lead editorial of the February 1994 issue of *Smithsonian*, vol. 24, no. 11, p. 8.

Similarly, I find the circumstances at least as depressing in American optometry. What is more depressing than merely the lack of clear images of optometry's past is the prevailing unawareness of the ignorance itself. Many an erroneous assertion in prominent published optometric papers and reports is made as though the author has some historical insight when in fact it is a cold presumption, if not merely a popular misconception. Much of this circumstance may well be a Freudian desire to envisage current concepts, trends, and technologies as "new" developments, the interpretation that any change is a sign of progress.

My own career experiences enable me to appreciate the significance of this commentary. In high school and in my first two college years I ranked history as my academic subject of least interest. During my next three years as an elementary school teacher of eight grades in a rural one-room school, I taught the history lessons coldly from a textbook.

On weekends I worked part-time for a retail hardware firm and was at the same time exploring other more promising fields of endeavor, including the suggestion of optometry. This was in the Great Depression era. From the college catalogs I received, the strolls down retail business streets, and the newspaper advertisements of eyewear I gained the impression that optometry was a relatively "new" field, an interesting retail business involving a technology which seemed to be of fairly recent development. There was no hint that spectacles had been invented more than 600 years earlier!

Quite naively, in September of 1936, without even submitting a letter of application for admission, I rode the train 150 miles to Columbus, Ohio, and enrolled in the curriculum of beginning courses outlined in the Bulletin of Applied Optics of The Ohio State University, having been told by someone that this was in fact optometry.

In the ensuing three years of professional courses I slowly began to realize that the underlying sciences pertaining to optometry, the visual sciences, were of classic origin, that early optics and philosophy were intermingled, that the visual arts and laws of perception preceded the birth of Christ, etc. Nevertheless I continued to

harbor the misconception that optometry itself was "new," that it was created in the early twentieth century by statutory registration, and that the change of academic identity from Applied Optics to Optometry confirmed it. By way of contrast, nary a hint was dropped to alert me to the fact that by the beginning of the fourteenth century spectaclemakers were already widely consulted by the innumerable presbyopic scribes whose vision was crucial to the preservation and dissemination of science and literature throughout the civilized world.

Three more years of post-professional graduate study in physiological optics with haploscopic research in the accommodation and convergence relationships gradually impressed me with the illustrious contributions of vision scientists early in the Renaissance period. It was beginning to dawn on me that I was in a discipline with as noble and pervasive a heritage as any that I had learned about in my preoptometric cultural studies. Mine was a discipline relatively free of the quackery, charlatanism, fakery, etc. that plagued especially the various components of the healing arts.

Still not an historian at heart I had, right up to that point in my career, failed to realize that I was still mentally excluding clinical optometry from any historical perspective. Then suddenly came my awakening.

In the fall of 1942 I was appointed to The Ohio State University Optometry faculty and was assigned, among other duties, the teaching of a new course in Optometric History and Orientation. Lacking a syllabus or textbook I truly had to scrape and scurry for tidbits of optometric history from journals, newsletters, commercial documents, and various other library references. Fortunately the university library and the optometry school files had accumulated a variety of resources, even old correspondence. What I discovered, especially from British and German periodicals and books, was that clinical optometry did indeed have an honorable heritage, albeit under the rubrics of ophthalmic optician, sight-testing, spectaclemaker, and other identities. The history of spectaclemakers guilds, the role of spectacle styling, the appearance of spectacles in classic oil paintings, reference to spectacles in early literature, the long-prevailing opposition to optical correction by medical authorities, the involvement of religious scruples, ophthalmic instrument inventions, apprenticeships, optical schools, and dozens of other bits of optometricana clearly document optometry's centuries-long existence and emergence from a prestigious and sophisticated handicraft to its present academic stature, a truly proud history which includes many prominent and accomplished personalities.

That very few of us recognized this was the concern of the late Maria Dablemont, Archivist for the American Optometric Association. She was the prime mover to create the Optometric Historical Society in 1969. Like the *Smithsonian*, *Hindsight's* role is to try to dispel our depressing ignorance of optometric history.

H.W H.

Early optical science:

When you and I did our laboratory exercises in geometric optics as first-year optometry students, we had several categories of clues as to what to expect in the way of experimental results of, for example, prism refraction. We had a printed instruction sheet, ready-made prisms, an optical bench, a controllable light source, a prior related lecture or two, a pertinent reading assignment from a textbook, and considerable background from a preoptometry physics course. The optician Isaac Newton (1642-1726) had not one of these guidelines beyond the Greeks' mathematical evaluation of surface reflections and their puzzling observations of several refractive phenomena occurring in nature.

In the opening sentence of his first publication, the letter of 6 February 1672 to the secretary of the Royal Society of London, Newton stated, "To perform my late promise to you, I shall without further ceremony acquaint you, that in the beginning of the Year 1666 (at which time I applied my self to the grinding of Optick glasses of other figures than *Spherical*), I procured me a Triangular glass-Prisme, to try therewith the celebrated *Phaenomena of Colours*." He then proceeded to describe his experimental procedures with narrow beams of sunlight entering a darkened room through a glass prism.

How did Newton's thought processes differ from yours and mine as he observed and measured the chromatic dispersion while he varied the incidence angle? After all, he is "most widely held to be the master of all masters of modern discovery."

Insight into this question is the mission of a 1993 book by Dennis L. Sepper entitled *Newton's Optical Writings, a Guided Study*, Rutgers University Press, New Brunswick, New Jersey. Reproducing selected text and illustrations with a careful minimum of typographical alteration, and providing explanatory and philosophical commentary for the nontechnical reader, Professor Sepper not only invites an appreciation of the intellectual contributions of the early "natural philosophers" (now called scientists) but also offers you and me better understanding of optics than we might have gained in our geometric optics course with all of its modern advantages.

H.W H.

A firsthand review of OSU Optometry:

OHS member Arol Augsburg, recognizing the significant contributions of Harold W. Oyster to Optometry, asked Dr. Oyster to record his recollections of the development of the optometry program at The Ohio State University.

On September 20, 1991, Dr. Oyster was honored by The Ohio State University College of Optometry and Optometric Educators Inc., an organization of full-time faculty members of the college, for his very significant contributions to the success

of Optometry at OSU. He was granted the Frederick W. Hebbard Medal in Optometry. Dr. Oyster was also recognized by The Ohio Optometric Association in May of 1991 for his outstanding career accomplishments. Prior to that, Dr. Oyster's contributions to the optometric profession were recognized by the American Optometric Association which presented him the Apollo Award in 1967. Dr. Augsburger submitted the following paper by Dr. Oyster for publication in *Hindsight*.

Optometry at The Ohio State University—1946-1969

Harold W. Oyster, O.D.

In 1946 I was elected President of the Ohio Optometric Association (OOA) and reelected in 1947. I had been elected President in 1943 but resigned after six months when I began active duty as a line officer in the Navy.

A fund-raising program with a goal of \$100,000 for an optometry building at The Ohio State University (OSU) had been initiated prior to World War II. A fund-raising firm had directed the campaign, but it was discontinued when the United States entered the war. About \$50,000 had been raised and was held by the OSU Development Fund. Since the optometry program was inadequately housed in Mendenhall Laboratory, the OOA made it the prime objective in 1946 and 1947 to complete raising the \$100,000 and use it as a bargaining lever with the OSU administration to obtain precedence on the university's list of capital improvement proposals. As President of the OOA, I met with optometrists throughout Ohio to urge contributions to the Building Fund. Many OOA members assisted me, but none more than the late Dr. Herbert G. Mote, who in 1948 succeeded me as President. The fund drive ended with a total of \$108,000 and influenced the OSU administration to successfully ask for an additional \$250,000 of legislative appropriations. These two amounts enabled the construction of the first phase of what is now the Glenn A. Fry Building. After the legislative approximation had been made, there was considerable discussion as to where on the campus the building should be located. Some optometrists felt that it would be better to have the building located in an area devoted primarily to social sciences. Others felt that optometry was a part of health care, and therefore the building should be located in the area which included medicine, dentistry, and pharmacy. I believe that it is fortunate that the latter point of view prevailed.

The first phase of the building was occupied in 1951, but it soon became evident that a larger facility was needed. In the legislative session of 1956, Dr. Glenn A. Fry, the Director of the Optometry Program, requested \$600,000 for an addition with the additional space to be used primarily for the clinical phase of the educational program. The request was not included in the OSU legislative program of capital improvements which was submitted to the General Assembly. However, Dr. Fry was told that he was free to make whatever independent effort he could to obtain the desired appropriation. At that time I was serving my fourth term as State Representative from Washington County and was chairman of the Health Committee and a member of the Finance Committee of the House. The timing for me to make some attempt to obtain the \$600,000 was exactly right. Two years earlier the political situation was not favorable for me as a Republican State Representative with a Democrat, Frank Lausche, as Governor. Two years later the same political situation occurred with Democrat Michael DiSalle as Governor. In 1957, however, Republican Governor C. William O'Neil was my immediate predecessor as Washington County's State Representative, and we had been friends and political allies since he was first elected State Representative in 1938. In addition to that, the Director of Finance in the Governor's cabinet was my long-time personal friend from Marietta—John Skipton. Also, the chairman of the Senate Finance Committee, C. Stanley Mechem, was my own State Senator for whom I had served as his Washington County campaign chairman. So I was able to get Skipton to include the \$600,000 for an addition to the

Optometry Building in the Governor's bill for capital improvements. I saw to it that it stayed in the bill in the House, Senator Mecham kept it in the Senate, and Governor O'Neil approved the bill.

By 1963 a different situation was in place. Optometry was originally a part of the Physics Department of the College of Arts and Sciences. Incidentally, the long-time chairman of the Physics Department, Dr. Alpheus W. Smith, was most helpful in promoting the progress of Optometry within OSU. Now in 1963, Optometry was a separate school under the College of Arts and Sciences whose Dean, Dr. J. Osborn Fuller, was also interested in Optometry's advancement. Prior to this time, the degree awarded to graduates in Optometry was that of Bachelor of Science in Optometry. This was also the degree awarded to the graduates of the other publicly supported universities which included Optometry in their curriculums. However, the private colleges of optometry all awarded the preferred O.D. (Doctor of Optometry) degree. After the proposal of the O.D. was approved by The Ohio State University College of Arts and Sciences and by the Faculty Senate, it was then sent to the Board of Trustees where it was strongly supported by OSU President Novice G. Fawcett.

Up until September 1963, all the approval required for a new degree proposal was favorable action by the Trustees. But a new state agency came into existence in September 1963—The Board of Regents. After that, all new degrees and new degree programs at all state-assisted institutions of higher education required approval by the Board of Regents in order to become operative.

In 1963 I was serving my seventh, and last, term as State Representative and was one of the principal legislative supporters of the bill to establish the Board of Regents. Governor James A. Rhodes appointed me as one of the nine Regents, and at the initial meeting of the Board held in his cabinet room, the Governor urged my election as Chairman of the Board. The Board was not able to obtain a chancellor until July 1964, so as Chairman (an unpaid position), I spent two or three days each week in Columbus putting together the nucleus of a paid staff, arranging for office space, developing procedures of the Board, beginning studies leading to a Master Plan for Higher Education in Ohio, and holding numerous conferences with university and college people, members of the administration, legislators, and news media—all to the detriment of my partnership practice of optometry.

The request for the O.D. degree was the first one to come to the Board of Regents, and we had no established procedure or policy for handling such requests, so I appointed a committee of the Board to consider the request and to make a recommendation to the Board. The committee consisted of Robert Lazarus, President of the Lazarus store; John Marshall Briley, Senior Vice President and General Counsel of the Owens-Corning Fiberglass Co.; and J. Ottis Ford, President of a steel company in Sandusky and Vice-Chairman of the Board of Regents. I took no part in the committee's consideration of the degree request and do not recall what was done by the committee, although I know they did go to the campus and meet with Dr. Fry.

The committee recommended approval and the Board on January 10, 1964, concurred without any opposition being voiced to the Board. Subsequent to the Regent's favorable action, President Fawcett told me that the degree request was vigorously opposed at the Trustee level. He said that he had asked Trustee John W. Bricker, former Governor and U.S. Senator, to lend support and that Bricker's assistance was decisive. Fawcett also felt that the fact that an optometrist was Chairman of the Board of Regents and in Fawcett's words "obviously a very strong chairman" accounted for the lack of any opposition at the Regents level.

Incidentally, OSU was the first publicly supported university to adopt the professional doctorate degree for optometry. Later all the others followed OSU's leadership.

December 1964 brought abrupt change in my career: First, as of December 21 my practice of optometry ended. I sold my interest in the partnership practice (Dr. Joseph B. Hutchinson had been my partner since 1943) and our office building to Dr. Don L. Curtis. Second, my seventh term as State Representative ended as of December 31; I had not sought reelection. Third, as of December 31, my resignation as a member and the chairman of the Board of Regents became effective. The resignation was necessitated by my acceptance of a newly created position at the University of Akron—Vice President for Development. After two years at Akron, I resigned to accept a similar Vice Presidency at the University of Toledo.

By 1969 the Optometry Program at OSU was again in need of expanded facilities and an agreement had been made with the OSU administration to transfer a substantial part of the old Starling-Loving Hospital to Optometry. This building was just east of Phase 1 of the Optometry Building and quite suitable for renovation to Optometry's needs. The proposed remodeling and renovation was estimated to cost \$1,000,000. Again, the OSU administration felt that other capital improvement requirements of the university had higher priorities and the million dollars for Optometry was not included in the OSU request to the Legislature for appropriations. Some time prior to 1969, the School of Optometry had become the College of Optometry, Dr. Fry had relinquished the top administrative position, and Dr. Frederick W. Hebbard talked with me about the problem and wondered if there was any way in which I could be helpful in getting the needed funds for the renovation. At that time I had been out of the Legislature for five years and was Vice President of another state university (Toledo) with a major responsibility of trying to get state funds for Toledo. But as I reviewed the situation, it did not seem as bleak as at first glance. OSU was the only university in Ohio with a program in Optometry and if funds could be obtained for Optometry which would not otherwise have been available for any other state university, it would not impinge upon my responsibility to Toledo. Also, I still had some important political contacts. Governor Rhodes was in the third year of his second term as Governor. We had not only been friends and political allies for twenty years, but he had also appointed me the two important positions (Member and Chairman of the Board of Regents in 1963 and Member of the Retirement Study Commission representing education in 1965). Howard Collier was the Director of Finance. As the chief fiscal officer for the Governor, he originated the capital improvements bill for introduction in the Legislature. He had been a friend of mine for many years. Also, many leaders in both the Senate and the House were people with whom I had served, including my closest personal friend in the House, Ralph Fisher of Wooster, who was Chairman of the House Finance Committee.

In the course of our discussions about the need for the additional space, Dean Hebbard told me that the college was planning, in conjunction with the then Columbus Technical Institute, a program for optometric technicians and some of the additional space would be required for this new program. I had this in mind when I made my first approach on the subject to Finance Director Collier. This was the logical first move as the most decisive step was to get included in the capital improvements bill as the Governor recommended it to the Legislature. By long tradition, appropriation bills, whether general, special purpose, or capital improvements, were introduced without change by the Chairman of the House Finance Committee. Of course, amendments could be made in committee or on the floor of the House or in the Senate. Collier proved to be sympathetic to my request and when I told him about the proposed optometric technicians program, he felt that would be the clincher for the Governor since he was strongly in favor of promoting technical and vocational programs. Collier suggested that we go together to discuss it with the Governor. Rhodes was willing to include the \$1,000,000 in the bill if Collier could make that amount available. When Collier said that he could, the Governor said, "All right, Howard, be sure to take care of it." My contacts with the appropriate House and Senate leaders were fruitful and the appropriation was enacted. Two years later John Gilligan, a Democrat, was Governor and I no longer had influence. But previously, the position I was in and the timing were right for the result we wanted.

Early creative advertising:

As has been mentioned from time to time in this newsletter, the history of optometry in the United States prior to 1900 was not well recorded outside of the major metropolitan centers of Boston, Philadelphia, and New York City. These seaport-dominated cities represented a very, very small percent of the total pioneering populace largely identified with rural settlements in small communities. The latter were scarcely represented in the nationally known press.

At about the turn of the century there existed in North America only one or two rudimentary optometric periodicals newly undertaken as private journalistic enterprises. Optometric organizations and societies were still virtually nonexistent or being formed as primarily defensive measures under threat of legislative assignment of optometry medical surveillance. The six prior centuries of relatively undisturbed complacency of the sight-testing spectacle providers meant simply that the individual optometric entrepreneurs or solo practitioners were left to their own devices to stimulate public demand for their services and thereby one would not rely on one's membership in a professional organization to provide promotional and public education to create popular demand for optometric services.

How was it accomplished before 1900? One very tangible clue is an 1899 publication edited by Charles Austin Bates and titled *The Optical Book*. It is a hard-cover volume about 14x20x3 cm printed and copyrighted by The Charles Austin Bates Syndicate, New York, and stitched so that the 200 or more individual leaves, printed on the front side only, can easily be removed to be given to the printer for reproduction as advertisements in a local newspaper. Each of about a hundred unnumbered pages consists of an eye-catching cartoon-like drawing under which is a bold-letter caption of several words followed by a paragraph or two of about 50 words that relates in some, often vague, way to spectacles, vision, optics, style, etc. It is intended that the optician insert his or her name and address beneath the advertisement. Each "ad" has an identifying number which can be used for ordering a "cut" (engraved plate) ready to be used by the newspaper printer.

In addition to the ready-to-use ads with graphic illustrations the next several dozen pages include almost a hundred discrete paragraphs suitable as newspaper column fillers about vision, etc. It is suggested that they may be utilized with display ads to promote the optician's services.

The introductory chapter, the only chapter, discusses the theme of how and why the opticians should advertise. The primary objective should be to create the demand for the optician's services and eyewear. "If all opticians were to advertise equally well, all would do much more business." It is not merely a matter of getting his competitor's business.

The rare volume reviewed here is in the collection of several thousand books donated by James Leeds, O.D., to the Indiana University Optometry Library.

At a loss for words:

The terms *alexia*, *aphasia*, *dyslexia*, *agraphia*, *amusia*, and *word-blindness* share in common a mysteriousness of identity, etiology, definition, and even credibility. They appear with considerable frequency in the visual science and optometric literature if only because an attribute of each clinical phenomenon is a visual dysfunction without an apparent cause in the visual pathway per se.

According to James Hinshelwood, author of *Congenital Word-Blindness*, H.K. Lewis & Co., London, 1917, the first description of blindness for words as an isolated condition was that of Kussmaul in "Disturbances of Speech," *Ziemssen's Cyclopaedia*, 1877, vol. XIV. Sir William Broadbent had described a case five years earlier in "Cerebral Mechanism of Speech and Thought," *Transactions of the Royal Medical and Chirurgical Society*, vol. 55, 1872, but the condition was accompanied by other speech disturbances.

Hinshelwood lists over 50 references, including 14 of his own, in the interval between 1872 and 1915.

H.W H.

Academy journal history:

With the change of editorship of *Optometry and Vision Science*, retiring editor William M. Lyle provides a succinct summary and chronology of the publication together with title changes and the names and roles of editorial personnel from the journal's origin as the *Northwest Journal of Optometry* in 1924 to issue No. 3 of Vol. 73, March 1996, pp. 135-137.

H.W H.

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