

HINDSIGHT

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Haine will serve as OHS President for the remainder of 2005:

Due to an overwhelming schedule of speaking, writing, research, and teaching that would be more than enough for two or three mere mortals, Jay Enoch has found it necessary to resign his presidency of OHS. Chuck Haine, the duly elected Vice-President for 2005, will take over as President for the remainder of 2005. Chuck is no stranger to leadership in OHS, having served as Treasurer from 1991 to 1995 and as President in 1996. We have fortunately been able to convince Jay to continue as an OHS Board Member and to continue his regular column in Hindsight.

Bob Boynton on Lorrin Riggs:

Editor's Note: This is the first publication in Hindsight by new OHS member Bob Boynton. He has had a long and distinguished career in vision research. He is Distinguished Professor Emeritus at University of California San Diego. He founded the Center for Visual Science at the University of Rochester. Among the awards he has received are the Ives Award from the Optical Society of America and the Prentice Medal from the American Academy of Optometry. He is co-author of a highly regarded book, Human Color Vision.

Lorrin Riggs at Brown in the Early Days: A Student's Recollections

I am writing this mainly to reminisce about my early interactions with Lorrin Riggs, who has been a major contributor to visual science and a vital influence in my life. (Lorrin celebrated his 93rd birthday on June 11, 2005.)

In 1948, during my senior year at Amherst College, I applied to four graduate programs in experimental psychology. The first response came from Brown University when I was surprised to receive a telephone call from Walter Hunter, chairman of the Psychology Department. After saying "I have an offer that I want to discuss with you face to face," he invited me to visit.

After more than fifty years I still recall the ride to Providence by Greyhound. I was very excited, realizing that the next few hours could have a crucial bearing on the remainder of my life. I arrived around one o'clock on a Spring afternoon, and after a

brief audience with Hunter, he sent me to see Lorrin Riggs, whom Hunter had described -- very accurately as it turned out -- as "a comer."

Riggs proved to be a heavy-set, red-headed, soft-spoken New Englander. Eventually I learned that he had been born in Turkey of missionary parents. After graduating from Dartmouth, he completed his graduate work at Clark University as a 23-year-old student of Clarence Graham (who had just turned 30). Following a postdoctoral stint with Keffer Hartline, Riggs was fortunate to find any kind of an academic job during the Great Depression. Hired at the University of New Hampshire, his teaching load was crushing and his research opportunities limited. He escaped during World War II when he was recruited by Brown University to study visual aspects of binocular range-finders for the military. After the war he joined the regular faculty and he was about to be promoted to associate professor at the time of my visit.

Shortly before the War, Riggs had published an article describing a technique he had invented that allowed the recording of reproducible electrical signals from the human eye in response to flashes of light -- the ERG. The war delayed the exploitation of this new methodology but by 1948 E. Parker Johnson, Riggs's first graduate student, had completed a dissertation describing his use of the Riggs recording method, which revealed the scotopic nature of the b-wave component of the ERG.

In a letter to my parents dated March 12, 1948, I wrote:
"Riggs must be at least 35, but he doesn't look 30. [He was exactly 35.] The first thing he did was to show me around the lab, describing the facilities, and I absorbed what I could. He told me the terms of an offer, explaining that I was No. 1 in line for the job and it was mine when I gave the word. Since his work is in the field of sensory psychology, and considering that I don't know much about it, I was very noncommittal at first. But by the time I left Brown to return to Amherst, almost all of my doubts had been resolved. I told Riggs that I was almost sure to accept, but that I wanted to talk it over with Allie [my wife] and Amherst faculty."

In 1948, significant government support of university research was a new concept, one pioneered by the Office of Naval Research before the National Institutes of Health, the National Science Foundation, and other government agencies got into the business. Riggs had applied for research funds from ONR, and my support as his research assistant was contingent on the funding of his proposal, still under consideration. Although I had not yet received feedback from any of the other programs to which I had applied, I accepted the Brown offer. I soon learned that Riggs had been funded by ONR, so my research assistantship was secure. In September, after my wife Allie and I had spent the summer with my parents in Shaker Heights, we took the train from Cleveland to Providence.

I got off to a shaky start by canceling my first appointment in Riggs's lab. On the afternoon of Monday, October 4, I was scheduled to start learning my trade. However, this also turned out to be the very afternoon when the Boston Red Sox and the Cleveland Indians would meet in a playoff game to decide the winner of the 1948

American League baseball championship. As a passionate Indians fan since 1935, I was compelled to jeopardize my career rather than miss hearing that game (no TV). So I walked up to Riggs's office, knocked at his open door, and announced "Dr. Riggs, I can't come to the lab this afternoon because I have to listen to a baseball game." Perhaps it would have been smarter to feign illness, given that I didn't know Lorrin very well yet, because an advisor of a different ilk might have told me to pack my bags and go home. But somehow, despite having no interest in baseball whatever, Lorrin understood my plight and never held it against me. (During a talk I gave when I received the Prentice Award in 1997, I had occasion to describe this and other baseball-related incidents that often distracted me from my work. Since retirement in 1991, I have enjoyed baseball research with a clear conscience.)

Lorrin's modus operandi was to turn students loose. Although he was always available for consultation, he did not snoop or dictate. He didn't provide any feedback, either, so my first year was an anxious one: I was doing fine but didn't know it. One day he remarked "nobody has studied the effect of stimulus area on the ERG -- maybe you'd like to do that." Characteristically, he didn't dictate exactly how I should do it. I had to put all of the optics and some of the electronics together (what is now routine was anything but in those days) and I also designed the experiment.

I was extremely fortunate that this research led to a discovery. I found that the ERG response was just as large in response to foveal as to peripheral stimulation. Since the rods had been shown by Johnson to initiate the response, how could this be? Lorrin was the one who suggested that there might be enough stray light in the eye to account for this, an idea that I resisted at first because I didn't want to believe that the eye's optics could be that bad. His idea was that most of the response from small peripheral stimuli might not arise from responses to receptors underlying the image of the stimulus, but rather from the low-level excitation by stray light of vast numbers of rods all over the retina. I mapped my pregnant wife's blind spot, along with those of a few other subjects, and found that the blind-spot b-wave was at least as large as that arising from a peripheral retinal area rich in rods.

My first scientific talk, on April 21, 1950, was on this subject. Although Lorrin listed himself as first author, which was quite appropriate, my presentation went over very well and really launched my scientific career.

A couple of things that stick in my memory that are illustrative of Lorrin's character. Some of us were having a bull session in his office one day when he said something to the effect that one must always be prepared to move in order to further one's career. (This from a man who stayed at Brown through retirement and beyond) I think it revealed a deep-seated ambition that he normally tried to play down. Another time, when a couple of us were watching him shred the optic nerve of a horseshoe crab, he remarked "If a graduate student can't get up his own steam, there's nothing I can do about it." This was consistent with his "turn 'em loose and see what happens" philosophy. Quite a few students didn't survive this treatment. Those who did during my era included John Armington, Floyd Ratliff, and Tom Cornsweet. Armington was

examining a photopic component of the ERG, while Ratliff and Cornsweet were pioneers, with Lorrin, in examining vision with stabilized images using eye-movement recording techniques that Lorrin had invented. Also, while I was at Brown, Riggs was collaborating with ophthalmologists, studying retinitis pigmentosa patients using the ERG -- a precursor the routine use of ERGs in clinical practice.

Above all, Lorrin Riggs is a very fine person and a real straight shooter. Both from him and from my father, I learned that honesty is the best policy. Also, Lorrin set an example as a very hard worker who still managed to be a good family man. I have greatly valued his friendship and support throughout the years.

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Jay Enoch's column:

A Jewel in the Crown:
The Program in Optometry at the University of Rochester in New York;
Part I. The Founding of the Program

Introductory Remarks:

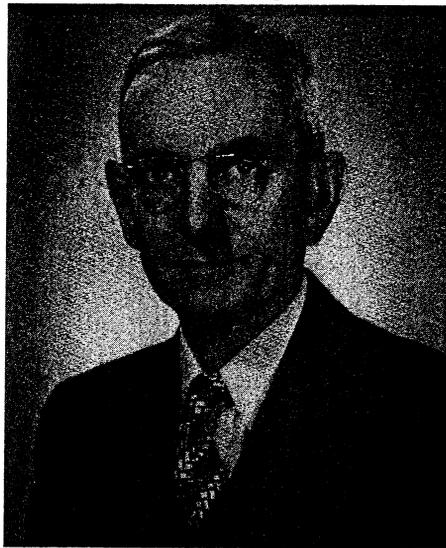
In 2004, The Institute of Optics at the University of Rochester, in Rochester, NY, celebrated its 75th Anniversary. As a meaningful contribution to that event, a book was published which was written by faculty, former students, and colleagues of the Institute. It is titled "*A Jewel in the Crown.*" The Editor is Prof. Carlos R. Stroud, Jr. And the book is published by the Meliora Press (U. of Rochester Press), Rochester, NY, 2004; ISBN 1-58046-162-X.

[Professor Stroud has kindly given me permission to describe/reproduce those portions of this fine document as it relates to the (now no longer existing) University of Rochester Program in Optometry and the associated Institute of Optics, to reproduce related photos, and to list faculty of the School and to reproduce the list of graduates of the School during its existence (Figures 7,8). A more complete treatment will be found in the original document.]

The history of the optometry program at Rochester is spread among the opening chapters of "*A Jewel in the Crown,*" some of which were written by the late Dr. Hilda (ne: Conrady) Kingslake. I had the pleasure of knowing both her and her husband, Prof.

Rudolph Kingslake. In this part of this report, I review material concerning the origins and creation of the program in optometry. The early history of the Institute of Optics at Rochester was closely intertwined with the optometric program - and some names encountered will be familiar to our readers. In turn, this program was closely tied to development of optometric education in the United States, *per se*, and, in part, to development of the program in optometry at Columbia University in New York City.

[Note: I graduated in 1950 in optometry as a member of the last undergraduate B.S. level class (degree awarded in Optics and Optometry) at the Columbia University Department of Optometry. Shortly afterward, during the Korean War, I was appointed as one of the first commissioned optometrists in the U.S. Army. After discharge, and with G.I. Bill funding in hand, I started my graduate studies at the Institute of Optics at the U. of Rochester in the Spring Semester of 1953. My graduate advisor was Prof. Brian O'Brien, who was a distinguished and early faculty member at the Institute of Optics. Later, he served as Director of the Institute of Optics (throughout WW II and afterwards). O'Brien was originally recruited to the Institute of Optics at the age of 31 in 1929-1930 in order to develop a program in Physiological Optics (p.17), and in this role, he taught in the nascent U. of Rochester program in optometry (Figure 1).



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Figure 1. A photograph of Professor Brian O'Brien in his mid-later years.

Prof. O'Brien accepted appointment as Vice-President for Research at the American Optical Corporation (AO) in Southbridge, MA. Sadly, his departure occurred about two months after my arrival at Rochester! It was O'Brien who first kindled my interest in the Stiles-Crawford effects and the related optical properties of retinal receptors. I also had opportunity to hear a memorable debate on this general topic between Prof. B. O'Brien and Prof. G. Toraldo di Francia at Rochester. I left Rochester (in the late summer of 1953) in order to continue my studies at Ohio State University with Prof. Glenn A. Fry.

During my brief stay at Rochester, I also met and had opportunity (in the spring of 1953) to take a class in vision science with a recently-arrived and very able faculty

member, Prof. Robert Boynton. I also had opportunity to conduct research with him that spring and summer. We became close friends.]

The Origins of the Institute of Optics and the Program in Optometry:

“It was no coincidence that The Institute of Optics was founded in Rochester, nor that it was founded in the years following World War I. The rapid growth of optics-related industry in the United States - eye glasses, scientific, surveying, and military instruments, and more recently consumer photography - made it intolerable to be dependent upon Europe for the essential materials and trained technicians needed to support these industries.” (Quote from Editor C. Stroud?, p. 2). Both George Eastman (Eastman Kodak), and Edward Bausch (Bausch and Lomb), among others, played important roles in the development of this institution and academic resource.

In its early days, the U. Of Rochester was located in downtown Rochester at the Prince Street or “old campus.” The optics and optometry programs, during planning and creation, were sited in the Eastman Building (Figure 2). The major “new campus”, known now as the River Campus was dedicated in 1930. On that campus, both optics and optometry programs were housed along with physics in the Bausch and Lomb Building located on the main quadrangle of the University. Today, the Institute of Optics has expanded greatly on the Rochester Campus.

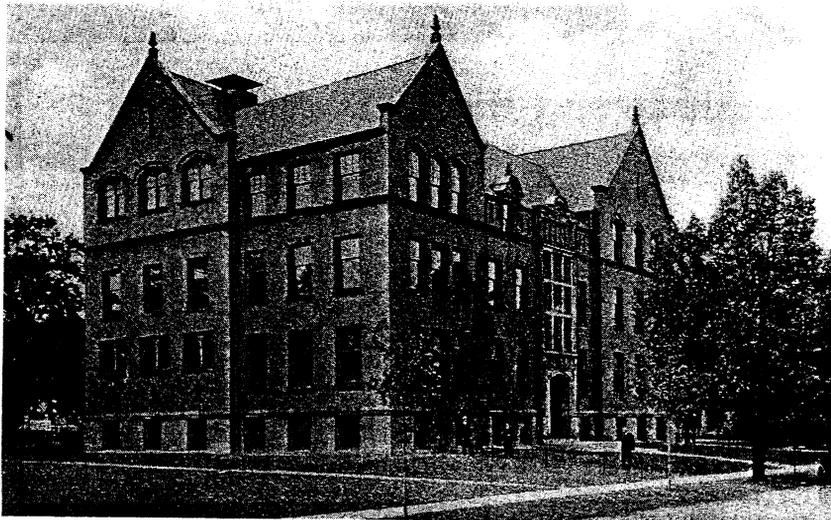


Figure 2. The Eastman Building on the University of Rochester Prince Street campus. This was the original site of both the U. of R. Institute of Optics and the Program in Optometry.

An important figure in the early development of optics and optometry in the United States was Prof. James P.C. Southall (Figure 3) (p. 4,5, and see Part II of this document). He was to be the founder of the Department/School of Optometry at Columbia University in New York City during his tenure as Professor of Physics at Columbia. In 1910, Southall was Professor at Alabama Polytechnic, at Auburn, Alabama. In that year, he wrote a special plea in the preface to his book, *“Principles*

and Methods of Geometric Optics.” Southall stated, “*the great province of applied optics was almost exclusively German territory, so that nearly all the outstanding developments in modern times in both the theory and construction of optical instruments are of German origin.*”

Southall’s timely argument and other urgent pleas (e.g., by Nutting, etc.) apparently resonated among the nascent optics community in Rochester and in the greater United States, and the (later-termed, and then just in formation) Optical Society of America. Further, the need for development of non-German optical educational, research, and industrial resources was greatly spurred by major and multiple requirements arising during World War I (1914-1918). Statements, such as the one quoted from Southall, brought about development of optical resources in England, the United States, and elsewhere.

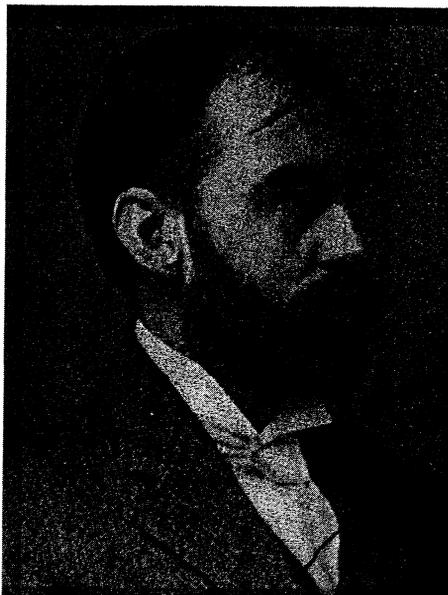


Figure 3. Photograph of Professor James P.C. Southall.

In Great Britain, the Department of Applied Optics was opened at Imperial College of Science and Technology in 1917. Imperial College is located not far from the Victoria and Albert Museum in London. Prof. A.E. Conrady was the first Director, and his daughter Hilda Gertrude Conrady and her husband Rudolph Kingslake, were among the first students in the program at Imperial College. In turn, they both were early, distinguished and long participants in the Institute of Optics in Rochester and in the associated program in optometry. [Technically, Hilda was not on the U. of Rochester faculty, but rather filled all manner of roles within the Program in Optometry and Institute and community; she was a fixture there!]

[A number of optometrists will remember J.P.C. Southall well from the very fine textbook he wrote on geometric optics titled: “*Mirrors, Prisms, and Lenses,*” which was published in a number of editions by MacMillan Press. Interestingly, the year I entered as a student into Columbia’s Optometry School, 1948, about one-half (?) of these

geometric optics textbooks appeared with a volume of poetry substituted within the covers of this book. I wish I had received one of those copies!

In the 1920s, Southall also translated the three volume tome, "*Hermann von Helmholtz's Treatise on Physiological Optics, 3rd German Edition*," into English at the behest of the Optical Society of America. The English translation contains interesting additional commentaries authored by von Kreis, Gullstrand (Ophthalmologist, Nobel Laureate), and Ladd-Franklin. More recently, the same translation of Helmholtz was reproduced by The Dover Press. Note: Helmholtz's Second German Edition of this masterwork is generally regarded as the finest of these now classical documents.]

On February 16, 1918, the distinguished and long-serving President of the U. of Rochester, Benjamin Rush Rhees received a letter from George Eastman speaking of letters received from a Mr. Dey and Prof. Southall raising a question as to whether Rochester might be a place to locate a School of Applied Optics rather than New York [City]? Apparently, Augustus Bausch was also involved in the exchanges of letters at that time. These gentlemen (less Rhees) also were charter members of the then nascent Optical Society of America. Eastman sought to arrange a meeting between Dr. Mees, then Director of the Research Laboratory of Eastman Kodak Co., Mr. Barnes, and Mr. Dey with President Rhees. *All* wanted to establish a university department dedicated to teaching and research in optics (p. 5). Eastman's letter, and one assumes the resultant meeting, evoked a meaningful response from President Rhees within a remarkably short period of time! The process had begun for a "School of Optical Engineering" at the University of Rochester. Added early discussions had been held in 1916, or 1917 by both Messrs. Augustus Busch and Adolph Lomb with President Rhees.

At this point, deliberations began as to how to achieve the defined program, e.g., how to organize this (then) quite unique entity. And it was necessary to decide who might direct it, to consider what type of faculty, curriculum, research, etc., would be included, as well as how to fund the program and associated physical resources and laboratories, etc. These matters take time. In 1926 or 1927, a subcommittee consisting of T.R. Wilkins (who had been appointed as Junior Professor in Physics at U. of Rochester, and who later would serve as the first Director of the Institute of Optics), L.A. Jones, of Eastman Kodak, and W.B. Rayton of Bausch and Lomb, was appointed "to outline courses to be offered in the proposed Institute of Applied Optics..." On June 3, 1927, they recommended two main lines of study, (a) "the training of students in the theory of optics and optical instruments...to provide a supply of men versed in the theory and skilled in the design of optical instruments..." and (b) *the training of optometrists* (this writer's emphasis)." There was also a plan for later development of postgraduate programs. Relative to the 'optical design group', the optometrists would receive less optical theory and added training in elementary anatomy and physiology, pathology of the eye, and optometric instruction and clinical practice. Note, the 4 year optometry course was started in 1926 (p. 14-15), with first graduates in 1930 (p. 14-15).

It is important to point out that there was a second, non-University affiliated, optometry educational program located in Rochester. It was called the Rochester School of Optometry (RSO) which had been founded in 1911 or 1912. Two faculty of the Rochester School of Optometry were engaged by the University for the new university-based program in optometry. They were the founder and self-appointed Dean of RSO, Mr. Ernest Petry (Figure 4), who was appointed Lecturer on Theoretical and Practical Optometry at the University, and apparently became the effective director of the nascent program in optometry at U. of Rochester, and Mr. Herbert E. Wilder of RSO (Figure 5) who was appointed as Instructor of Optometry, and served as optical shop instructor. Petry also served for a period of time on the New York State Board of Examiners in Optometry (p.18).



Figure 4. Lecturer Ernest Petry.

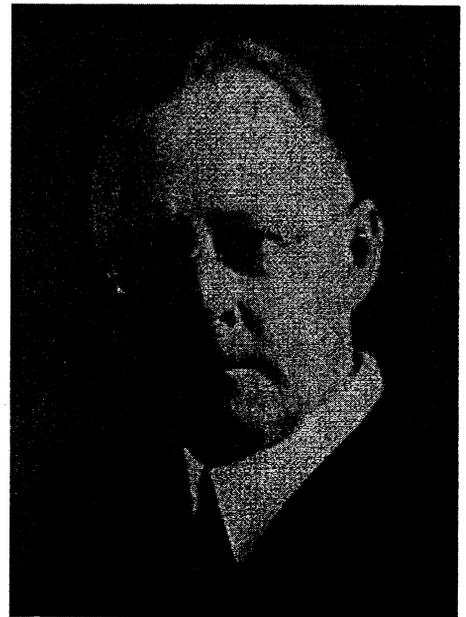


Figure 5. Herbert E. Wilder, head of the optics shop.

[It is interesting to note that another faculty member of RSO was Gordon H. Gliddon who taught part-time at RSO and worked part-time at Eastman Kodak. He apparently had a part-time appointment in physics at U. of Rochester (p. 22), but he is not listed as a member of the early Institute of Optics Faculty (p. 38). Some years later, Gliddon served as a colleague of Adelbert Ames and Kenneth Ogle at the Dartmouth Eye Institute in Hanover, NH.]

Actually, the situation became somewhat more complicated because of actions taken by the New York State Legislature; those actions weakened the role of independent schools of optometry (such as RSO) in N.Y. State. In 1908, the State Legislature passed a law, similar to laws passed in other jurisdictions, initiating regulation of the profession of optometry, “thereby placing small private optometry schools in considerable jeopardy” (p. 22). In 1923 the Legislature passed another law stating that “on and after January 1930 all newly qualified optometrists in New York State had to be graduates B.S. or B.A. of a recognized university, and [to be] certified in

optometry.” (p. 22). RSO did not have University status, had 6 faculty and 100 students. Because of related concerns, it was Petry who first contacted President B. Rhees of U. of Rochester (p. 22).

Although some students in optometry started their education in 1926 (see above), formally, The Institute of Optics and U. of Rochester program in Optometry date their origin as academic bodies from 1929. Subsequently, the optometry program was terminated in 1936 (this is the subject of the next column). At the time the program was discontinued, 40 students had graduated with a B.S. in Optometry (about ½ of all students at the Institute of Optics during the first years of its tenure). There is a photograph of “Members of the first class in optometry” (p. 23). It included 7 males and 1 female. However, only two individuals are listed as having graduated in 1930, 2 in 1931, 4 in 1932, 9 in 1933, etc. Thus, one assumes the caption of the photograph represented a larger group of individuals than indicated in the first graduating class (Figures 6,7). Alternatively, these might have been pooled members of the first graduating classes. Dr. Petry and Mr. Wilder can be identified in this photograph.

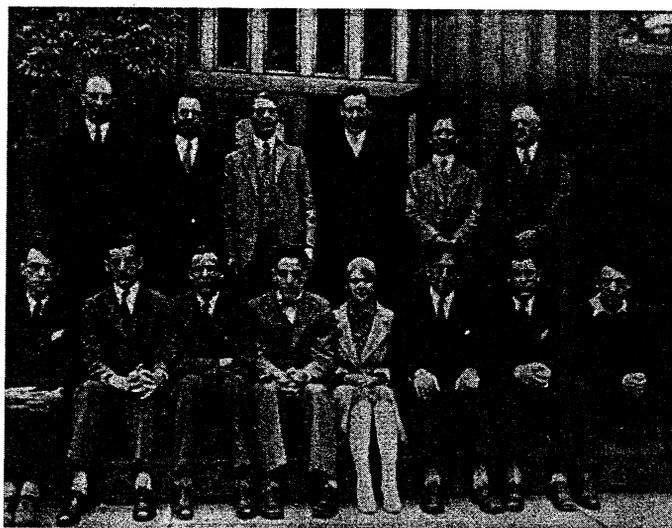


Figure 6. The “first class” in the optometry program. The students are shown seated (please see accompanying text). One assumes the individuals standing are all faculty. Among the latter, both Petry and Wilder can be identified on the right.

Among the early students (Figure 7), I knew Dr. Richard Feinberg (later Ph.D.) quite well. He became head of the Northern Illinois College of Optometry in Chicago, and afterwards served as a senior administrator at the National Institute of Neurological Diseases and Blindness, NIH. He graduated with a B.S. in the Class of 1933. Also in the Class of 1933, there was a very fine clinician and teacher, Dr. Elias Margaretten. He was a long-time faculty member at the Columbia University Department of Optometry. I came into contact with him quite often, but I was never assigned to his classes.

If readers have added information about this school, its faculty (Figure 8), or its students, Dr. Goss, the editor, and I would appreciate recording these details as they relate to this early optometry program. And we would also both be pleased if errors encountered are corrected! This discussion will be continued in my next column, where the ensuing closure of this promising school will be addressed. On yet another occasion, it might be interesting to compare the reasons and conditions for the closure of the U. of Rochester Program in Optometry and the later closing of the Columbia U. Department of Optometry in the late-1950s. Thank you.

Allen, Arthur W., B.S.*, 1933	Hussong, Harold E., B.S., 1935
Allyn, William G., B.S.*, 1934	Hutchings, Franklyn C., B.S.*, 1935
Armstrong, A. G., B.S.*, 1932	Ingalls, Arthur L., B.S., 1932
Aronson, Casper J., B.S., 1938; M.S., 1939	Johnson, Fred W., B.S., 1938
Beel, William E., B.S.*, 1934	Johnson, J. R., B.S.*, 1935
Benford, James R., B.S., 1935	Juengst, W. C., B.S.*, 1936
Bergmann, Cedric O., B.S.*, 1932	Levy, S. H., B.S.*, 1933
Bickel, Edward E., B.S., 1939	Lewis, C. P., B.S.*, 1934
Bingham, W. J., B.S.*, 1934	Litten, Walter, B.S., 1936
Burrage, R. R., B.S.*, 1930	London, Mortimer A., B.S., 1937
Chamberlin, J. C., B.S.*, 1931	Margaretten, Elias J., B.S.*, 1933
Craytor, Russell E., B.S.*, 1935	Marshall, Henry S., B.S.*, 1934
Denton, Arthur H., B.S.*, 1936	Milligan, F. H., B.S., 1934
Eggleston, John N., B.S.*, 1930	Orden, Alex, B.S., 1937
Elliott, Theodore F., B.S.*, 1936	Orser, W. D., B.S., 1934
Erckert, S. D., B.S.*, 1930	Perkins, R. F., B.S.*, 1936
Estes, Cameron B., B.S., 1938	Porter, Melbourne J., B.S.*, 1932
Evans, John C., B.S., 1939	Quick, H. E., B.S.*, 1935
Evans, Preston G., B.S.*, 1932	Rogers, Howard F., B.S., 1936
Feinberg, Richard, B.S.*, 1933	Schiller, A., B.S.*, 1933
Fortmiller, Louis J., B.S., 1938	Strebel, Gustave A., B.S.*, 1936
Gienke, E. L., B.S.*, 1933	Suter, Walter J., B.S., 1934
Goldstein, David G., B.S., 1939	Tupper, J. L., B.S., 1933
Griswold, Mack D., B.S., 1935	Veit, M. C., B.S.*, 1934
Hart, James C., B.S.*, 1935	Vermilya, E. B., B.S.*, 1933
Harvey, James E., B.S., 1939	Warren, C. D., B.S.*, 1936
Hathaway, F. M., B.S.*, 1931	Warren, Franklin A., B.S.*, 1934
Hildreth, L. E., B.S.*, 1933	Weinstein, Jacob D., B.S.*, 1933
Hoadley, H. Orio, B.S., 1935	Wersinger, R. E., B.S.*, 1935
Hopkins, Robert E., M.S., 1939; Ph.D., 1945	West, Cedric F., B.S.*, 1935
Hudak, Robert J., B.S., 1939	Weston, Frederick C., B.S.*, 1934
	Williams, David L., B.S., 1937
	Williams, J. C., B.S.*, 1934

Figure 7. Degrees awarded, 1930-1939, by the University of Rochester Institute of Optics. Asterisks designate the Graduates of the Program in Optometry.

The Institute of Optics Faculty 1929–1939

Berry, William, 1929–33
Campbell, J. Stuart, 1935–40
Clark, Herbert A., 1938–43
Dewey, Jane, 1929–30
Fairbanks, Floyd C., 1929–30
Fassin, Gustave, 1930–40
Greenwood, Gilbert, 1929–30
Hood, J. Douglas, 1929–30
Jones, Lloyd A., 1929–43
Kingslake, Rudolf, 1929–2003
Kurtz, Henry, 1930–32, 1935–36
Lowry, Earl M., 1929–30
Luckiesh, M., 1930–31

Martin, L. C., 1936–38
Mees, C. E. Kenneth,
1929–43
Moss, F. K., 1930–31
Murlin, John R., 1929–32
Nitchie, Charles, 1934–35
O'Brien, Brian, 1930–55
Petry, Ernest, 1929–36
Rayton, Wilbur B., 1929–31
Sedgwick, H. Jobe, 1930–34
Taylor, A. Maurice, 1929–34
Wilder, Herbert E., 1929–39
Wilkins, T. Russell, 1929–39

Figure 8. The U. of Rochester Institute of Optics Faculty, 1929-1939. Most of these individuals participated as instructors (at least part-time) in the optometric teaching program.

All figures are reproduced courtesy U. Of Rochester, and Prof. Carlos R. Stroud, Editor. These are reproduced with permission from the book, *A Jewel in the Crown*, Meliora Press, 2004.

J.M.E.

Responses to last issue's portrayal of an optometrist in a Perry Mason novel:

In the April, 2005, issue of *Hindsight*, there was a presentation of the portrayal of "an optometrist, a jeweler and a watchmaker" from a 1950 Perry Mason novel. The following questions were posed to the readers: "A question for members who may have been in school or in practice in 1950: how accurate a portrayal is this of some of the older optometrists practicing in 1950? How many optometrists still identified themselves as optometrist, jeweler, and watchmaker in 1950?" Responses were received from two OHS members, Ted Grosvenor and Jerry Abrams. The following response from Ted Grosvenor was received first:

I was intrigued by your question – regarding the Perry Mason novel – about older optometrists in 1950. I was, of course, definitely a young optometrist at that time, but I had an interesting experience in briefly meeting a much older one.

When I was ready to graduate from the OSU College of Optometry in 1946, Dr. Herb Mote, who was in charge of Assistance to Graduates at that time, told me that the small town on Franklin, in southwestern Ohio between Dayton and Cincinnati, needed

an optometrist, and that there was an old optician in Franklin, who was practicing under the “grandfather clause” in the Ohio Optometry Law, who would be retiring soon.

Betty, my bride of one year, and I drove down to Franklin, found vacant office space (as I recall, the rent was \$40 per month) and a place to live, and decided to seek our fortune there. Some folks with whom we became acquainted in Franklin knew who the old optician was, and where he was.

We were told that his “office” was on the second floor, above a grocery store. So I arranged to pay him a visit. After walking up the stairs, I wasn’t surprised to enter what looked more like a “shop” than an office. Various items of jewelry were on display, along with a microscope or two, and a display case of what looked like “ready-made” glasses. The old fellow didn’t appear to be in good health, and seemed to be relieved that he would no longer have to climb up and down the stairs every day. He was working only part-time, and soon retired completely. Like most older practitioners, he had apparently been taking care of the older folks who had been patronizing him for years.

The Perry Mason novel also brought to mind the optician who had a store in Cuyahoga Falls, Ohio, where I grew up. My dad was a general medical practitioner – a “country doctor” who spent almost as much time making house calls as seeing patients in his office. An oculist had an office in the same building as my dad. Every time the oculist examined my eyes (starting at about age six) he gave me a prescription to take to the jeweler-optician next door. That shop was even more like the Perry Mason novel. Not much evidence of spectacles or other optical stuff, mostly jewelry. I don’t believe there was anyone in Cuyahoga Falls during the 1930s who called himself or herself an optometrist, but there may have been another jeweler-optician.

The following was received from J.J. Abrams:

I am replying to your question in the newsletter in the “An optometrist in a Perry Mason novel.” In 1950, I was practicing optometry in my first year of solo practice. I don’t recall any optometrist, jeweler, and watchmaker; however, there were many optometrists who practiced in jewelry stores and department stores. In Indianapolis, for instance, a very large optical department headed by Dr. Roland Cox was on the mezzanine floor of L.S. Ayres which was one of our finest department stores at that time.

In the Perry Mason novel it was interesting to see they did address the optometrist as DR. Carlton B. Radcliffe. Also his statement “Information about a patient...I don’t give out...” makes one think about HIPPA laws.

In 1950, there was a strong optometric philosophy of ethical and professional optometry versus commercial optometry. The AOA and IOA adopted a strict “Code of Ethics” that kept jewelry store and neon sign optometrists from membership. That “Code of Ethics” prevailed for many years. Then in the 1970s many states began to

relax these rules and by 1980 all states were accepted optometrists no matter how and where they practiced.

More on Edward C. Bull, spectacle collector:

In the January, 2005, issue of *Hindsight* (pages 4, 5), I wrote about information that David Fleishman had been able to gather about optometrist and spectacle collector Edward C. Bull. I also included a summary of a few mentions of Bull and his famous older brother ophthalmologist in earlier issues of *Hindsight*. Edward C. Bull lived in Pasadena, California in his later years and died in 1931. There was still much unknown about Bull and I posed some questions to the readership.

Linda Draper of ILAMO emailed me a list of publications by and about E.C. Bull from a file that ILAMO had maintained on him. She then sent me copies of items from the list that I was not able to obtain in the Indiana University Optometry Library. The following is the list of publications by and about Edward C Bull:

Bull EC. Letter to the Editor: Edward C. Bull established in Paris. *Optical Journal* October, 1899;6(8):624.

Bull EC. Interesting collection of ancient eyeglasses and prints showing how they were worn. *Optical Journal* May, 1902;9(5):399-402.

Bull EC. History of bifocals. *Optical Journal* April, 1903;11(4):445-452.

Bull EC. The patron saint of the opticians. *Optical Journal and Review* May 18, 1911;27(21):1160.

Bull EC. A Voyage into the History of Spectacles. Presented at the Educational Congress, 29th Annual Convention, American Optometric Association, San Francisco, 1926.

Anonymous. Exhibits at the A.O.A. convention. *Optical Journal and Review* July 8, 1926;58(2):40.

Anonymous. Exhibits. *Optometric Weekly* July 8, 1926;17(18):673.

Anonymous. Dr. Bull tells of evolution of spectacles. *The Reflex* (Los Angeles School of Optometry) February 10, 1927;7(7):5,14.

In the 1899 letter to *Optical Journal* Editor Frederick Boger, Bull tells of his move to Paris. From the tone of the letter it appears that Boger and Bull must have been well acquainted. The following are some excerpts from Bull's letter, first dealing with his getting established in Paris and then relating to a book written by his brother:

“...It is a very difficult thing to establish an American house in Paris. The laws are very hard to put up with, and all seem made on purpose to annoy opticians.

“...I have opened the very model of optical stores. The situation is ideal, for Rue Scribe is the American street in Paris. The chief steamship passenger offices are on it and Monrow Bank and several exchanges, and the Chamber of Commerce is next door. The Grand Boulevards are at one end of the block and the Opera is at the other. The dining room of the Grand Hotel looks out directly on our shop, where they see a sign that they cannot help seeing.

“...I have seen three opticians from America since I arrived, and it did my heart good to talk with some one that could sympathize with me in the hard pull I was having to get established. Mr. L.E. Kirstein of Lloyds of Boston, and an optician of Worcester, Mass., have been here, and Henry Blattner of St. Louis. Mr. Wells of Southbridge also called on me and sort of gave his blessing to the establishment.

“...I know that you will be glad to publish this extract from Dr. Javal’s preface to Dr. Bull’s book on eye glasses and spectacles, which is just about published:

“The second edition of Dr. Bull’s book shows the progress that has been made in the last ten years, which for the most part comes from America. I would point out especially the progress made in the adjustment of eye glasses and spectacles. From American also comes the news of an evolution in medical optics, which having become one of the fields of oculists tends to return to the hands of the opticians. It is plain, in fact, that in order to prescribe spectacle lenses it is not necessary to have made complete medical studies. Also, however, well founded the objections to this may be the revolution I have pointed out is destined to gain ground.’

“I am sure that you will be glad to see what the inventor of the ophthalmometer thinks of American opticians.”

Bull’s 1902 and 1903 publications indicate that he was then located in New York. The 1902 article includes a composite picture of 36 pairs of spectacles and reproductions of eight prints showing people wearing spectacles. Bull used these pictures as illustrations of the changes in spectacles over the years. In discussing some of the spectacles he made comments indicating that they were from his collections. Perhaps they all were. Additional pairs of spectacles are pictured in his 1903 article.

The booklet in which Bull’s presentation at the 1926 American Optometric Association was published gives his address as 510 S. Madison St., Pasadena, California. He also had an exhibit of his collection at that AOA meeting. The *Optometric Weekly* description of his exhibit said that “Nearly every form of eyeglass that has been made was shown in this exhibit, which has taken a third of a century to amass, and has been collected from all corners of the globe. There was a line of pictures surrounding the room which also showed the development of eyeglasses...”

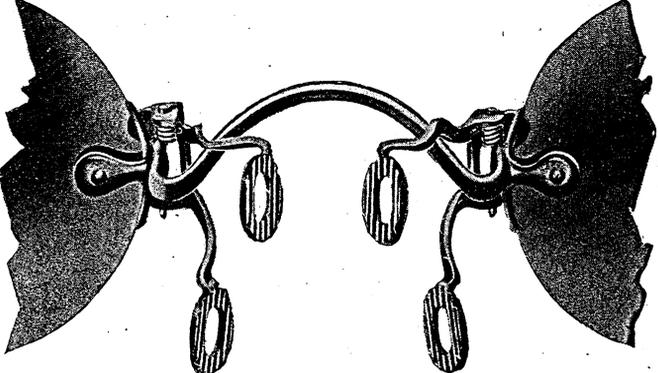
We are still left with a number of questions about Edward C. Bull. What was his birth year? Where did he receive his training? And perhaps most puzzling, David Fleishman has a photo of Bull's June, 1912 Doctor of Optometry diploma from Southern California College of Optometry and Ophthalmology, but Bull is not mentioned anywhere nor listed among the graduates in James Gregg's book on the history of the Southern California College of Optometry.

D.A.G.

One Hundred Years Ago:

The following advertisements that appeared in *The Optical Journal* one hundred years ago may be of some interest to readers. The advertisement for rigid spring eyeglasses was on page 52 of the June 29, 1905 issue (volume 16, number 1); the notice from the Northern Illinois College of Ophthalmology and Otology was on page 44 of that same issue. The ad for auto-goggles was inside the front cover of the July 6, 1905 issue (volume 16, number 2).

The list of state optical organizations on pages 197 and 198 of the July 6, 1905 issue of *The Optical Journal* includes 31 organizations in the United States and two from Canadian provinces. The names of the organizations are mostly "...Optical Association" or "...Optical Society." Only four them had optometry or optometrists in the name of the organization: California State Association of Optometrists, New Mexico Association of Optometrists, Rhode Island Society of Optometry, and Wisconsin Association of Optometrists.



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Hon. Lawrence Y. Sherman,
LL. D.

Lt. Governor of Illinois,
Professor of Optical Jurisprudence.

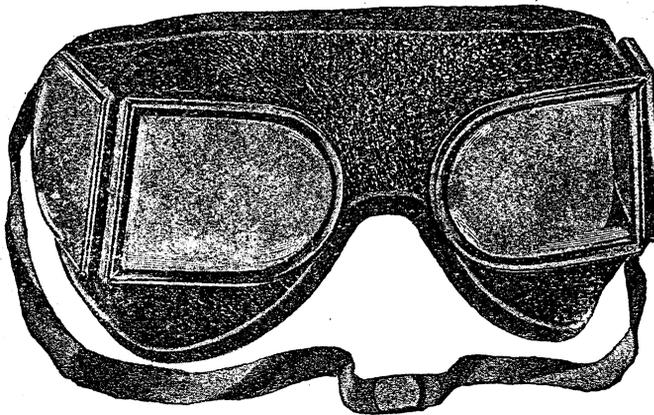
James J. Lewis, Oph. D.
Professor of Refraction.

For particulars address

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You are bound to have calls for these goods—especially if you display them.

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