

CHAPTER 2

THE AUTHORIZATION FOR THE ORIGINAL OPTOMETRY PRACTICE ACT IN THE STATE OF ALABAMA

AUTHOR'S NOTE

Following chapter 2 are three appendices. The **first** appendix is a summary of the limited edition memoir of Charles F. Prentice which, though long out of print, will be of interest to any reader wanting to understand Prentice and his drive to establish the legal basis for the independent profession of optometry. The **second** appendix provides an outline of the steps necessary to enact a law in the State of Alabama. This outline provides some context concerning the difficulty the members of the Alabama Optometric Association encountered for each law enacted. The **third** appendix is a chronological list of the year the original optometry practice act was passed in each state, district, territory, or commonwealth of the United States.

INTRODUCTION

The fact the profession of optometry exists in the United States is a remarkable achievement. Although attempts to establish the legal basis for the profession had their genesis in the late 19th Century, the profession as it exists today, is largely a result of organizational activities and legal or legislative efforts that occurred throughout the 20th Century. Efforts to expand the scope of practice of the profession were especially active during the latter third of the 20th century. It should be noted that these efforts continue into the present time of the 21st century.

THE EMERGENCE OF THE PROFESSION OF OPTOMETRY

It is clear the visual needs of the growing American public were not being met by any profession or group in existence before, during the time period of the last two decades of the 19th century, and into the early part of the 20th century. At some point in time, during the 1870's or 1880's, there arose rather quickly, a dissatisfaction with the wide-array of people who were providing vision care. These included opticians who supplied spectacles but did not test vision (sight), opticians who supplied spectacles and tested vision, itinerant spectacle peddlers, and jewelers or watchmakers who offered some type of optical service. In addition, some physicians tested vision and either supplied spectacles or sent patients to opticians to obtain spectacles, oculists, the forerunner of present day ophthalmologists, whose training and interest were not especially in refraction or optics but in the medical and surgical treatment of eye disease. There were very few residency-educated ophthalmologists at this time and those that were in existence were primarily in the large cities. As mentioned in Chapter 1, many oculists and ophthalmologists did not believe in the efficacy of spectacles being of value in relieving visual symptoms.

If the public's vision care needs were being met, then the establishment of a new profession would not have been necessary. Credit must be given to those early "refracting opticians" who envisioned the need for establishing the independent profession of optometry. Not only was there a need for esteem and prestige, which being a profession would provide, but more importantly, there was a great need for better and more consistent vision care for the public. The early leaders of the profession faced many obstacles which required a courageous and persistent effort by these men.

THE EARLY NATIONAL LEADERS OF THE PROFESSION

The early efforts to establish the legalized profession of optometry began in the State of New York. Among the very early leaders that helped organize what would become the profession of optometry in New York were the following: Charles Prentice, Andrew Jay Cross, W. W. Bissell, George Bausch, B. B. Clark, M. E. Kenney, E. H. Hopkins, J. J. Mackeown, Briggs S. Palmer, and

later E. E. Arrington. Foremost among these early leaders was Charles F. Prentice. Prentice is widely considered the “Father of Optometry” even though ironically he was not responsible for passing the original optometry practice act in the State of New York. That honor goes to E. E. Arrington who, after Prentice decided the political arena was not his strong suit, led the effort to pass the original optometry practice legislation in the State of New York.

It was Prentice who provided much of the strategy and framework for organization and initial efforts to pass legislation regarding the optometry practice act in the State of New York. His efforts were directly related to insults he received from local oculists for charging his patients a fee for service of \$3.00. It was from this encounter that many of his initiatives were developed to respond to these charges. After the passage of the optometry practice act in New York in 1908, he was also instrumental in the establishment of a Course in Optometry at Columbia University. His vision was for the establishment of a standardized or uniform ophthalmic practice act, but that never came to pass. However, he was able to effectively demonstrate, by his arguments, the need for an independent profession that came to be known as optometry. It seems likely that even Prentice would be surprised by the stature the profession has achieved over the last 118 years in the American health care system. **A condensed version of Charles Prentice’s autobiography is provided in Appendix I.**

Although Prentice believed 1865 was the year a profession truly devoted to eye care began in America, the next 30 years resulted in a very slow growth in the number of refracting opticians (1). During the 30 year-time period between 1895 and 1925, much of the optical or vision services were supplied by men engaged in a highly skilled trade that was transitioning into a profession. With state licensure and regulation, as well as educational requirements for licensure, one could observe some consistency emerging in the delivery of vision care. In a relatively brief period of time, short-term proprietary schools or colleges and non-licensed practitioners, began to disappear. Thereafter, the service was gradually provided on a professional basis. The forerunner of what would eventually become the Illinois College of Optometry was begun in 1872. With the passage of additional practice acts other schools and colleges were established after the beginning of the 20th century. The Optometric Extension Program (OEP) did much to encourage the professionalism of the optometry and was also a leading provider of post-graduate clinical education in the form of small study groups and regional meetings. Beginning in 1928, this organization had a great impact on the profession during the 1930’s through the 1960’s. As the profession of optometry evolved and vision care improved on a wide-spread basis, one could ascertain the honest purpose of those early leaders. This process of eliminating unregulated practice required a generation of struggle with medical opposition being the greatest impediment. In many respects this opposition remains to the present time, although its effectiveness has not been particularly remarkable.

TIME AND DEMOGRAPHICS INFLUENCING OPTOMETRY'S GROWTH

The professionalization of optometric practice was primarily an American phenomenon. It did occur to a lesser extent about the same time in England and some British Commonwealth nations. Although the profession of optometry has gradually expanded throughout much of the world, especially the English speaking countries, the United States remains the standard bearer for the profession.

There is little doubt that the geographic size of the United States and its relatively rapid population growth certainly contributed to the profession's success once the profession secured legal status. To give some perspective on the influence of population growth, the population of the United States in 1800 was 5.3 million (not counting women, children and slaves). The first attempt to count every person was in the 1850 Census. During this time slaves were counted as three-fifths of a person. In 1900, the population of the country was 76.2 million and each decade, thereafter, the population increased almost 15% per decade. In 1950 the population had grown to 150.6 million and by 2000 281.4 million. When the same rate of decade growth was applied to 2010 then the estimated population was approximately 308 million. In fact, the United States Census as of 2015 was over 320 million in population.

The urban-rural change in the composition of the population has also been remarkable during this time period. In 1900 the urban/rural population ratio was 36.9%/60.4%, by 1950 it was 64%/36% and in 2000 81%/19%. One of the critical elements of optometry's growth as a profession has been its geographic distribution in both urban and rural settings. Its rural base early in the 20th Century contributed greatly to the profession's growth. This rural base also was responsible for not only its clinical success, but legislative success as well.

In contemporary times not only has optometry retained geographic distribution but it has also anticipated the diversity of its practitioner base in terms of gender, race, and culture, which should position it well for future changes in the health care system.

THE EMERGENCE OF INDEPENDENT OPTOMETRY IN ALABAMA

Introduction

The profession of optometry existed in Alabama long before the enactment of the original practice act. There were, no doubt, itinerant spectacle peddlers in such a rural state as Alabama. Refracting opticians existed to a greater extent in population centers of the state before an organization was founded. The following history is from the notes of Dr. Evelyn B. Robinson and the Alabama Legislative Reference Service (2, 3). The *Iris Bulletin*, which was published for many years by the Alabama Optometric Association (ALOA), served as the source

for Dr. Robinson's brief history of the early years of the organization. Dr. Robinson served as the Secretary of the ALOA from 1947 to 1957.

Minnesota was the first state to pass an optometry practice act in 1901. California was the second state to pass an optometry practice act in 1903. Once original optometry practice acts began to be enacted they were all passed within 23 years. This is a remarkable achievement given the fact these laws had to be enacted by all 48 states and two territories. In the south, Tennessee, North Carolina, Florida, Arkansas, Virginia, Georgia and Louisiana had all passed an optometry practice act by 1918 (4).

The Alabama Optical Society (AOS) was organized in 1906 and represented the beginning of organized optometry in Alabama. As with any effective organization, a professional group dependent on representative legislation, is likely to have numerous factors and personalities that influence the actions of the organization. By contrast the first Dental Practice Act was passed in Alabama on December 31, 1841. The Board of Dental Examiners of Alabama was organized in 1881 and was the first such regulatory body for dentists in the nation. Among the earliest medical associations established in the United States was the Medical Association of the State of Alabama (MASA) in 1847. The first medical practice act in Alabama was passed more than 25 years later, in 1873.

THE PASSAGE OF THE ORIGINAL OPTOMETRY PRACTICE ACT IN ALABAMA

Organization of the Alabama Optical Society (AOS)

As in the State of New York, more than a decade earlier, a small group of optometrists in Alabama, met to organize and begin the process of professionalization. This meeting took place on May 22, 1906. The first meeting place is not mentioned by Dr. Robinson but, given its central location in the state, Birmingham seems the most likely site. There were three major decisions made at this historic session. First, the group voted to formally organize the Alabama Optical Society (AOS). Second, they voted to affiliate with the national association, the American Optical Association (AOA). Third, they selected a Board of Membership Examiners (2).

The first officers of the AOS were Drs. E. H. Hobbs, Selma, President; J. H. Tinder, Birmingham, Secretary; and Max T. Doering, Anniston, Treasurer. In 1907, Dr. J. W. Taylor, Sylacauga, was selected as Chairman of the Legislative Committee to seek passage of a state optometry law. It was the charge of the committee to draft the bill, mail it to members (presumably for purposes of information and comment) and present the final bill to the Alabama Legislature. It is known that Senator T. S. Frazier, Union Springs, and Representative Frank Stollenwerck, Montgomery, assisted in the preparation of the legislation. Senator Frazier introduced the bill in the Senate (2).

According to one of the members of the AOS, Dr. Harmon Knight, the lawyers were paid approximately \$10 to draft the first legislation. He recalled driving to Birmingham to make plans to pass a law to license optometrists. The trip from his home at Clio, in Barbour County, took three days (5). Given the time necessary for travel and written communication, it seems probable some period of years would have been necessary for preparation of a draft law. Since the bill was not introduced until 1911, it is most likely the intervening time period was required for the committee to meet its charge in terms of drafting and finalizing the legislation. A search of the State Archives did not reveal any listing regarding optometry for either 1907 or 1909 Special Sessions. Dr. Knight's remembrance lends some credibility to Birmingham as the meeting location.

First Attempt by the ALOA to Pass Legislation

The 1911 Legislative Session of the Alabama Legislature was 50 calendar days in length and began on Tuesday, January 10, 1911 and ended on Friday, April 14, 1911.

Senate

On Saturday, January 28, 1911, the 13th Day of the Session, Senator T. S. Frazier, Montgomery, under the heading of "Introduction of Bills" introduced S. 151 to regulate and define the practice of optometry in the State of Alabama, and to provide for a State Board of Examination and Registration and to prescribe their duties. This bill was assigned to the Senate Committee on Public Health.

On Thursday, February 9, 1911, the 20th Day of the Session, the bill S. 151 (as stated in the preceding paragraph) was read a third time at length and passed, Yeas, 26; Nays, 0. The "Report from Committee on Enrolled Bills" deemed it correctly enrolled, signed by N. D. Godbold, Chairman. The bill S. 151 was signed by the President of the Senate immediately after its Enrollment. Its reading at length was dispensed with by a two-thirds vote of a quorum of the Senate present.

House of Representatives

On Friday, February 24, 1911, the 29th Day of the Session, under the heading of "Introduction of Bills" S. 151 was taken up in the House of Representatives and an amendment offered by Representative Burton. Burton's amendment would amend Section 6 by striking out the words "twenty-five dollars" where the same occur in said sections and insert in lieu thereof the words "ten dollars". This amendment was adopted, Yeas, 66; Nays, 0. (It seems most likely this fee referred to the registration fee assessed for taking the state board or perhaps to a renewal fee of such a license).

Representative Arnold, during this same day of the session, offered the following amendment to the bill: Amend Section 2 of the bill S. 151 by inserting after the word “or” in line 9 of said section the word “sell” and the amendment was adopted, Yeas, 58; Nays, 6. And the bill S. 151, as amended, was read a third time at length and passed, Yeas, 52; Nays, 21.

On Wednesday, March 1, 1911, the 30th Day of the Session, a “Message from the Senate” stated “The Senate has concurred in and adopted the House amendment to wit: S. 151, “To regulate and define the practice of optometry in the State of Alabama, and to provide for a State Board of Examiners and Registration and to prescribe their duties”, Signed by J. A. Kyle, Secretary.

According to Dr. Robinson’s notes, the bill S. 151 was then sent to Governor Emmet O’Neal who returned it for corrections. The requested corrections were made but Governor O’Neal vetoed the measure. There is no record of the date of the signed veto in the State Archives. (It seems likely those opposing this legislation had the Governor’s veto from the beginning). However, this defeat did not deter the membership’s desire to obtain legislative approval and enactment of the law (2).

Second Attempt by the ALOA to Pass Legislation

Three years later, in 1914, revised legislation was prepared by a new committee. Dr. B. B. Sims, Talladega, is credited by Dr. Robinson with having obtained the Alabama Medical Society’s endorsement of the new bill. This second attempt by the Alabama Optical Society ultimately proved unsuccessful as well (2). The revised legislation was introduced in the 1915 Session of the Alabama Legislature. The Alabama Legislature met only on the uneven years, or biennium, at this time in history. Interestingly, the 1915 House Journal index does not provide a listing for the heading of “optometry” or the page numbers for H. 1022. This has made it difficult to locate specific details related to legislative action for this second attempt. Dr. Robinson’s brief historical notes do mention who introduced the bills in the Alabama State Senate and in the House of Representatives. By referencing the names of the sponsors, the Legislative Reference Service was able to provide some specific information about this second effort.

The 1915 Legislative Session of the Alabama Legislature was 50 calendar days in length beginning on January 12, 1915 and ending September 25, 1915.

Senate

On Saturday, February 13, 1915, the 18th Day of the Session, under the heading of “Introduction of Bills” Senator W. W. Hill of Montgomery, introduced the bill S. 364 which was “To define and regulate the practice of optometry in the State of Alabama, and to punish

violators thereof, to provide for a State board of examiners and registration and to prescribe their duties". This bill was assigned to the Committee on Finance and Taxation.

House of Representatives

On Saturday, July 17, 1915, the 22nd Day of the Session, under the heading of "Introduction of Bills" Representative John Lavery of Talladega, Alabama introduced the bill H. 1022. This bill read the same in language as S. 364 and was assigned to the Committee on Education. It is known from the Index of the Senate Journal that the bill H. 1022 was passed in the House and sent to the Senate. Unfortunately, actions or votes related to H. 1022 are not available in the Journal of the House.

Senate

According to the Journal of the Senate for the 1915 Session, H. 1022 was passed by the House and sent to the Senate. On Thursday, August 19, 1915, the 33rd Day of the Session, under the heading of "Introduction of Bills" H. 1022 was introduced in the Senate.

On Monday, September 20, 1915, the 48th Day of the Session, under the heading of "Adverse Reports", Mr. Easterley, Chairman of the Standing Committee on Public Health, reported that said Committee, in session, had acted on H. 1022 and ordered same returned to the Senate with an adverse report. On that same day under the heading of "Notices", Mr. Brown gave the Senate notice that the next day he would move to take H. 1022 from the adverse calendar, give the same a second reading, and place it on the regular calendar for a third reading.

On Wednesday, September 22, 1915, the 49th Day of the Session, under the heading "Motions to Take from Adverse Calendar" pursuant to notice heretofore given, Mr. Brown moved to take from the adverse calendar, read a second time, and place on the regular calendar, H. 1022 for a third reading. Mr. Lewis moved to table the motion made by Mr. Brown, which was lost, Yeas, 10; Nays, 17. And the motion made by Mr. Brown then prevailed, and said bill was taken from the adverse calendar, read a second time, and placed on the regular calendar for a third reading the next day. Under the heading of "Indefinite Postponement of Senate Bills" on motion of Mr. Wallace, the Senate indefinitely postponed all the Senate bills on that day's calendar, to wit: S. 364 by Mr. Hill.

On Saturday, September 25, 1915, the 50th Day of the Session, the bill H. 1022 was taken up by the Senate. And said bill was read a third time and passed, Yeas, 14; Nays, 9. Although no specific information is available as to the date, like its predecessor, H. 1022 was vetoed by Governor Charles Henderson. Again, it is likely the opposition knew in advance that this bill would be vetoed by the Governor.

The AOS had previously attempted to upgrade membership by adopting a Code of Ethics and by incorporating the organization. In 1916, the members adopted a new constitution and by-laws that had been prepared for the Society by Judge T. M. Rogers of Birmingham. In a continuing effort to pass an optometry practice act another Legislative Committee was formed in 1918 and Judge Rogers assisted in drafting this legislation. It is presumed Judge Rogers was retained for the drafting of this bill based on his prior assistance in drafting the new constitution and by-laws for the AOS.

Third Attempt by the ALOA to Pass Legislation

In 1918 another legislative committee was formed and Judge T. M. Rogers of Birmingham assisted in drafting another bill that was in much greater detail than those previously drafted and submitted (3).

The 1919 Legislative Session for the Alabama Legislature was 50 calendar days in length and began on Tuesday, January 14, 1919 and ended on Saturday, September 27, 1919.

House of Representatives

On Friday, July 11, 1919, the 23rd Day of the Session, under the heading "Introduction of Bills" Representative W. T. Murphree introduced H. 472. "To define optometry; to provide for the regulation the practice thereof; to provide for the examination of applicants to practice optometry in Alabama; to provide for the issuance of licenses and certificates and the registration and display thereof; to provide reports by probate judges of said registrations; to provide for revoking or refusing to issue said licenses and certificates; to provide for a State board of optometry; to provide for the appointment of members thereof, and describe their duties, powers, qualifications, terms of office and compensation; to provide for the disposition of fees collected by said board; to provide fees and funds for enforcing said act; to provide for enforcing said act; to allow the board to enter into reciprocity agreements with like boards of other states; to provide penalties and punishment for violations of the provisions of said act; and to repeal all general and local laws in conflict with said act". This bill was referred to the Committee on Public Health.

Under the heading "Bills Reported Adversely" Mr. McLeod, Chairman of the Standing Committee on Public Health, reported that said committee, in session, had acted on the following bills and ordered the same returned to the House with an adverse report. Among these bills was H. 472. The date of this action by the House is not mentioned in those pages of the Journal sent by the LRS but may have occurred on the same date.

Senate

On Monday, July 14, 1919, the 24th Day of the Session, under the heading of "Introduction of Bills" Senator Watt T. Brown , introduced in the Alabama Senate, bill S. 306: "To define optometry; to provide for the regulation of practice thereof; to provide for the examination of applicants to practice in Alabama; provide for the issuing of licenses and certificates and the registration and display of; to provide for reports by probate judges of said registration; to provide for the revoking or refusing to issue said licenses and certificates; to provide for a State board of optometry; to provide for the appointment of members thereof, and prescribe their duties, powers, qualifications, terms of office and compensation; to provide for the disposition of fees collected by said board; to provide fees and funds for enforcing said act; to allow the board to enter into reciprocity agreements with like boards of other states; to provide penalties and punishments for violations of the provisions of said act; and to repeal all general and local laws in conflict with said act". This bill, S. 306, was assigned to the Senate Committee on Public Health.

On Wednesday afternoon, September 3, 1919, the 42nd Day of the Session, under the heading "Special Order" the Senate, proceeded to consider the special order on the day's calendar, which was: S. 306. On this same day Senator Leith offered an amendment to said bill, to wit: Amend by striking out of said bill the following words: "Revoking or refusing to issue said licenses and certificates". This amendment was adopted, Yeas, 20; Nays 2.

Senator Morris, on the same day, offered the following amendment to said bill, to wit: Amend S. 306 by adding Section 2 thereof the words: "Provided, that any person who has been engaged in the business of fitting glasses, and who has been so employed and resided for five continuous years in any county in Alabama, shall be exempt from the provisions of the act". Whereby Senator Brown moved to lay the amendment offered by Senator Morris, on the table, which motion to table was lost. And then the amendment offered by Senator Morris was adopted, Yeas, 16; Nays, 11.

On this same day, Senator Huddleston offered the following amendment to said bill, Amend S. 306: "Provided, no optometrist licensed under this board, shall examine or fit glasses on the eyes of any one under the age of forty years or who has a disease instead of simple error of refraction causing the trouble of sight". Senator Brown moved to lay this amendment offered by Senator Huddleston on the table, which prevailed and said amendment was laid on the table.

And said bill was, as amended, read a third time at length and passed and ordered sent forthwith, to the House without engrossment, Yeas 21; Nays 8.

House of Representatives

On Friday, September 5, 1919, the 43rd Day of the Session, under the heading "Message from the Senate" the Speaker of the House was informed the Senate had originated and passed the following bill: S. 306 (same bill as offered by the House). And sends same herewith to the House without engrossment, signed, W. F. Miller, Secretary.

On Thursday, September 25, 1919, the 49th Day of the Session, the bill S. 306 was taken up. Mr. Mathews of Wilcox offered the following amendment to the bill: Amend S. 306 by striking from Section 21 the words: "who do not use or attempt to use, or permit to be used a trial case or test cards, nor employ mechanical means to determine the accommodation or refractive status of the eye". The amendment was, on motion, of Mr. Tompkins, laid upon the table. And the bill: S. 306 was read a third time at length and passed, Yeas, 50; Nays 16.

Confusion as to the Date Signed by the Governor

Senate

In the Report of the Senate Secretary, S. 306 was sent to the Governor on September 27, 1919 at 10:30 AM. According to the Journal of the Senate, bill S. 306, sponsored by Senator Watt T. Brown was approved on September 8, 1919.

The bill S. 306 was approved on September 28, 1919. Although the act date in the Journal of the Senate and House reads September 8, 1919, since the enrolled bill was not sent to the Governor until September 27, 1919 it seems more likely the date the Act was approved was September 28, 1919. With the approval of the Governor it became Act No. 521.

Another possibility exists that may help explain this discrepancy. In her historical notes, Dr. Evelyn Robinson provides a different, most interesting and unusual outcome. Acknowledging the bill was passed by both chambers and sent to Governor Thomas Kilby as he was preparing for a trip to New York City, Dr. Robinson reported the subsequent action taken by the AOS. Fearing that the allotted time would elapse and the bill would still not be signed, Dr. Tinder and Representative Murphee followed Governor Kilby to New York City and personally presented the bill to the Governor. He signed the bill on October 8, 1919 in New York City. After 12 years of organization, drafting, finalizing, and presenting a bill to the Alabama Legislature, the people of Alabama had an Optometry Practice Act. Perhaps the date September 8, 1919 recorded in the Journal should have been October 8, 1919, the actual date the Governor signed the bill. To make matters even more interesting, Arrington, in his book, lists J. H. Bankhead as the Governor of Alabama when the law was passed in 1919 (6). However, John H. Bankhead was a U. S. Senator from Alabama during this time period but never Governor.

The Alabama State Board of Optometry was appointed in November 1919 and examinations for certificates of practice were initiated shortly thereafter. The name of the organization was

changed from the Alabama Optical Society to the Alabama Optometric Association (ALOA) during its 25th Anniversary meeting in 1930. A new Constitution, By-laws and Code of Ethics were adopted at this same time and Dr. J. W. Langley, Secretary of the State Board of Examiners reported there were 200 licensed optometrists in Alabama.

SUMMARY

The passage of the original optometry practice act in Alabama occurred relatively late in the passage of optometry laws for the 48 states that existed at this time. From the first act in Minnesota in 1901 until the passage of the 48th law in Texas in 1921 required only 20 years. Of the 48 states, Alabama ranked 44th in terms of chronological order. The District of Columbia enacted its law in 1924. **A summary of the steps necessary to pass a bill in Alabama is included in Appendix II.**

However, the State of Alabama would be involved in many historic aspects of optometric legislation throughout the 20th Century. **The chronological history of the enactment of the original optometry practice acts in the United States is presented in Appendix III.**

In closing, it should be mentioned that the battle for independent optometry continues into the 21st Century. States, including Alabama, are continuing to expand their scope of practice either through legislation or board regulation. It is likely this struggle will continue until every state board of optometry has the authority to determine what is practiced by the profession in each state.

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APPENDIX I

A SUMMARY OF THE LIFE OF THE FATHER OF OPTOMETRY

INTRODUCTION

This summary is intended to capture the essence of Charles Prentice's optometric career without the necessity of finding and reading his autobiography. This summary is condensed from Prentice's autobiography entitled *Legalized Optometry and the Memoirs of its Founder* (1). The book was published in a limited edition of 200 copies in 1926. It is 416 pages in length and the first part of the book describes the events that led to the legalization of optometry and the writing and publication of several important papers related to optics. This section of the book is 188 pages in length. The remainder of the book is devoted to Prentice's memoirs and provides details of his life from birth through his education, to his involvement in the New York State Board of Examiners, beginning the program in Optometry at Columbia University, and various other topics.

Although there were many men who contributed to the founding of the profession, it is Charles F. Prentice, who more than any other individual, deserves the honor of being called "The Father of Optometry". As Classe' has mentioned in his excellent chapter on "Optometry – A Legal History" the impetus for the legal basis of optometry originated with an insult (2). Prentice was a refracting optician who practiced in New York City. His examination was not limited solely to refraction and dispensing services but he employed the ophthalmoscope and other techniques to detect disease. It was largely Prentice's unique personality, character of purpose, and integrity that took great offense to a letter he received from Dr. Henry D. Noyes. Charles Prentice chose a course of action where others might easily have succumbed to such threats.

Prentice has been characterized as an idealist. He deplored anyone who compromised at any stage of his existence. Throughout his memoirs he criticized his optometric colleagues, political friends, and friends in ophthalmology for their compromising attitudes. This rigid style may explain why he was only involved in the New York State legislative arena for two years.

Origin and Early Education

Charles's father, James Prentice, was born in London, England January 2, 1812 the only son of John Prentice. Prentice does not provide the name of his grandmother. John Prentice, at this time, was secretary of the London and Manchester Coaching Company operating prior to rail service. James was apprenticed for seven years to John Beal a maker of drafting instruments. John thought that James should know a trade.

Charles's mother was Henrietta Marschutz originally from Germany. As a young woman Henrietta served as a lady-in-waiting to the Princess von Wittgenstein at Schloss (Castle) Hohenrothe, Neuberg, Germany. On her departure, she received a letter of introduction and praise from the Princess von Wittgenstein to Comtesse de Moat de l'Ampere of Paris, France when she moved to that city. Following her service to the Comtesse, Henrietta accompanied a married sister and her husband to America in 1849. In America she was governess to the children of a well-known family who resided on Astor Place in New York City. Prentice would later credit his mother for his good manners.

On the day James absolved his apprenticeship, after seven years of service, and on his 23rd birthday, his father John died, suddenly leaving his estate to James and his two sisters. James took a position with the Coaching Company at the Saracen's Head, London until this company discontinued business. In the meantime, the estate was poorly managed and ended disastrously through ill-advised land and building investments. This turn of events resulted in James taking a job with Elliott and Sons in their mathematical instruments department. Shortly thereafter, James emigrated to New York City, where he immediately established himself in the manufacture of drafting instruments in 1842. It was from this original business that the optical business evolved. It was during the War of the Rebellion (American Civil War) that James opened his retail optical store.

Henrietta met James Prentice through a previous acquaintance she had known in Paris. By this time, he was a widower without heir. They were married in 1851 in Brooklyn, New York and had eight children. Charles was the second child and the only child who survived infancy. Charles was born on June 24, 1854. He was enrolled in a German school in New York City at the age of five in 1859. Later, during his boyhood years, he spent time on Staten Island and attended Methfessel's Institute. Charles and his father had a close bond and the latter always preached the value of a good education. It was apparent that his father planned for his son to join him in business after completing his education.

One interesting childhood anecdote that followed Prentice into adulthood is of note. At some point in his first decade of life, young Charles was taken by his mother to visit a friend, Mrs. Linder. Her husband Edward was the inventor of the first breech-loading firearm. Mrs. Linder called on her nephew, a teenage boy of 18, to entertain young Charles. After watching the teen paint in watercolors the young man decided to show Charles his prowess with a breech-loading pistol. Without a word of warning or explanation, he stood Charles on a chair with a target set on a bracket just above his head. He then proceeded to fire the pistol, shooting at the target while cautioning Charles not to move. After being terror stricken, Charles collapsed in the chair from fright. This unusual adventure was followed in a day or two by an attack of scarlet fever.

As a result of violent drugging Charles' digestion and metabolism were greatly impaired and from whose effects he felt he never fully recovered.

While attending Methfessel's Institute, during his youth, he jumped some 12 feet out of a barn window and sustained a fallen stomach. This condition was not discovered until 1909 when, at age 55, he was suffering from his third attack of inflammatory rheumatism. He had managed the condition primarily by paying careful attention to his diet. However, after having the condition for six months his weight had been reduced to 115 pounds. A few days after returning to the office, a Scottish gentleman came to see him. Alarmed by his condition, he recommended that Prentice resume his normal diet, discontinue all medications and take one ounce of "King William" scotch whiskey before each noon meal. He worked up the courage to try this remedy on January 15, 1910 and continued it until May 15, 1910 at which time he weighed 145 pounds. He concluded that his digestion had been stimulated and assimilation improved accounting for the weight gain. However, he was not able to relinquish the scotch whiskey without recurring symptoms and had to leave the country on occasion to lawfully gain access to the whiskey. Needless to say he was not a fan of the Volstead Act (Prohibition).

Education Abroad

In April 1870, at the age of 16, he left for Europe accompanied by his mother. During that year he attended the Gymnasium (similar to high school) in Lahr, Baden, Germany. Henrietta had been born and raised in Lahr. After turning 17 years of age, when he met the age requirement, he entered the Royal Polytechnicum at Karlsruhe, Baden in the autumn of 1871. His education was primarily in engineering, physics and mathematics. He completed his courses in Mechanical Engineering in June 1874. This program was very arduous in that lectures began at 7:00 AM changing hourly until 12:00 PM, again, they resumed from 2:00 PM until 5:00 PM six days a week during the spring semester. The lecture notes were to be in writing at day's end so the nights were late. His father had carefully planned Charles college education being of the opinion there were no courses in optics available in the United States of comparable quality.

Prentice Joins Father in Business

Prentice returned to the United States in October, 1874. Not wishing to join his father in a business he felt beneath his dignity, and one the public did not yet appreciate, he worked for several months for Mr. John Towle as a mechanical engineer. Evidently he left this position after several months because the owner's monkey kept stealing his drawing instruments. Next, he worked for Mr. John Roach at the Ninth Street Yards for eight months in a business that repaired steamships.

Prentice then complied with his father's wishes and joined him in business. His first task was to supervise the installation and take charge of his father's exhibit of Engineering Instruments at

the 1876 World's Fair in Philadelphia. His father won a Bronze Medal for excellence of these instruments at this exhibit. In 1867 his father patented his so-called "Anatomical Eye Glass" the first patent issued for eye-glass frames in America. Bausch and Lomb opticians paid James Prentice royalties on shell and rubber frames for the full life of the patent. Next, young Prentice undertook the preparation of drawings and specifications for a patent application requested by one of his father's customers. As a result of this success he solicited patent work from several other businesses. Charles was not yet 24 years of age.

Just before his 26th birthday, most likely around 1879, Charles, still inexperienced with women, made the mistake of marrying a woman two years older than he. It was a disastrous union in which during one of her fits of disapproval, she swept from the table his paper on the "Metric System of Numbering and Measuring Prisms," that contained the "Law of Decentration". Unfortunately, this marriage ended in divorced in 1894.

The second duty assigned Charles by his father was to compile an elaborately illustrated catalogue devoted to descriptions of instruments manufactured and imported by him. His father was increasingly busy with fitting and prescribing glasses and wanted Charles' assistance as soon as the catalogue was completed. It was during this time that Prentice began the study of optics and reading the ophthalmology literature. There were no regularly published high quality optical periodicals, journals, or other such literature at this time. Although several optical books had been published by this time in America, Prentice may not have been aware of their existence.

In the evening he would read books by Donders, Helmholtz, and other authors of the period. He noticed that none of these books contained a description of the properties or construction of ophthalmic lenses. This led Prentice to write a clearly illustrated 48-page paper entitled "Ophthalmic Lenses". This was published as a book in 1886 by James Prentice and Son. As a result of this book, Prentice, developed a long friendship with Dr. Swan Burnett, Reviewing Editor of the *Archives of Ophthalmology*.

In 1886, Prentice also wrote and copyrighted a brochure entitled the "Opticist" in which he set forth the origination of the word and its meaning. Prentice was of the opinion that since the early years of the 18th Century, opticians became generally known as the adapters and dispensers of spectacles. This was apparent since they alone had acquired a certain proficiency and experience in the selection and fitting of spectacles. The oculists of this time were not interested in spectacles and confined themselves strictly to the treatment of eye disease. The dictionaries of the day support this contention.

However Prentice claimed, that between the years 1866 and 1888, after the publication of Donders' book, oculists began to surreptitiously invade the province of the optician. Some

oculists, and general physicians, began to prescribe spectacles without any training in this area. This in turn gave rise to a division with the opticians to those who were “dispensing opticians” and those who were “refracting opticians”. In addition, the refracting opticians found their own ranks invaded by young watchmakers or jewelers who were taught to examine eyes at trade schools. All of these events led to the establishment of an atmosphere of the eventual conflict that ensued.

Later Prentice was introduced to Dr. Richard Lennox, pathologist at the New York Eye and Ear Infirmary. Prentice was interested in learning more about ocular pathology and Lennox was willing to assist. Lennox became Prentice’s preceptor at the Infirmary for two winter sessions during 1887 and 1888.

In 1887, Dr. Swan Burnett had conceived the idea of making plastic models to illustrate bi-cylindrical refraction. Burnett sent to Prentice two crudely constructed combinations of cylinders made of wood, their axes at right angles. At this time, Burnett suggested Prentice undertake to make similar models for cylinders, combined at other angles of deviation between their axes, along with a mathematical solution to the problem. After spending five months after office hours, Prentice, had completed the text, illustrations, and a set of five gilded models constructed in accordance with the 16 inherent laws not previously disclosed. James Prentice and Son published “Dioptric Formulae for Combined Cylindrical Lenses” in 1888. At that time, this was the only publication in which powers of the cylinders and the deviation of their axes were given and required to determine the primary and secondary refractions of any part of superimposed cylindrical lenses. The book and models were presented to Dr. Burnett who later presented them to Georgetown University, Washington, D. C.

In 1889 Dr. Burnett informed Prentice that Drs. Noyes, Jackson and he (Burnett) had been appointed to a committee to suggest a new nomenclature for prisms. A Dr. Dennett had already suggested the term Centrad. (It is not entirely clear who appointed this committee). Burnett thought that Prentice might, based on his earlier publications, be able to suggest some simpler and more practical method of measurement. After due consideration by the committee, the resulting publication was the “Metric System of Numbering and Measuring Prisms”. This paper was published in Dr. Knapp’s *Archives of Ophthalmology*, January – April issue, 1890.

This paper was the first to reveal the intimate relationship between lenses and prisms and the consequent “Law of Decentration”. Knapp requested this paper be translated into German for publication in *Archiv fur Augenheilkunde* in Berlin of the same year. This paper was the first published by an optician (optometrist) in the ophthalmology literature. As a result, Knapp advised Prentice to study medicine but Dr. Burnett thought it inadvisable since Prentice

displayed no interest in surgery. Prentice was happy to follow this advice since he knew to do otherwise would meet strong opposition at home.

Dr. Noyes invited Prentice to attend the meeting of the Section on Ophthalmology and Otology on October 19, 1891 to explain his suggested system of prism measurement. Prentice complied primarily in the interest of early adoption of the prism-dioptre as the unit of prismatic power. The original name prism diopter had been suggested by Dr. Burnett. Subsequently they decided to abandon the word diopter because it had already been applied to the surveyor's level. After the meeting, the chairman suggested a vote of thanks to Prentice, which was seconded by Dr. Knapp, and carried unanimously. Prentice was pleased since he was the only optician to have been privileged to address an assembly of medical specialists on a strictly scientific subject at this time. (Not too much has changed in this regard in 120 years, except optometrists are now banned from attending the American Academy of Ophthalmology).

THE AFFRONT

On December 16, 1892 the battle for independence in which refracting opticians would lawfully be recognized began with the writing of a letter. The central argument was that medicine, and in particular oculists, were not successful in convincing legislators that refraction was one of the "undisturbed possessions" of the medical profession. Prentice had taken charge of his father's practice on his death in 1888. He had developed a successful practice and received referrals from some 60 general physicians as well as satisfied patients.

Ultimately the refracting opticians utilized three approaches to convince legislators that the medical concept or notion was not valid. First, they educated legislators with respect to historical background of optometry that clearly illustrated the development of the field and the science of refraction through activities essentially non-medical. Second, was the comparison of educational facilities and schools for training optometrists with the same training provided medical students and thirdly, by placing emphasis on the physical as opposed to physiological aspects of optometry by the use of slogans. Interestingly New York was the first state to attempt to pass an optometry practice act but became the 13th state to pass an optometry practice act.

Specifically, Prentice, received a letter on December 17, 1892 from Dr. Henry D. Noyes thanking him for referring a patient but criticizing him for charging a separate fee for an examination. In this letter, Dr. Noyes stated that not only did Prentice place himself in direct competition with oculists but was doing so without having the proper training and education to do so. He charged that it was an impropriety for him to practice without the necessary qualifications. Prentice answered Noyes' letter on December 17, 1892 with a long letter describing his rationale, defending his actions and qualifications. This exchange of correspondence continued

through much of January 1893. On January 2, 1893 Prentice again defended his actions based on his education and experience. Noyes shared Prentice's reply with Dr. D. B. St. John Roosa, who joined the fray, and thought Prentice might even be breaking the law. By the end of January, Prentice, had considered the matter closed. St. John Roosa was successful in February 1895 in passing a resolution of the New York County Medical Society that ejected members who sent patients to opticians.

Opticians Mobilize

At this time seeing the true trend of affairs, Prentice, brought the matter to the attention of Mr. Frederick Boger, Editor of the *Optical Journal*. Boger, favoring a National or American Association of Opticians organization, published a call for action in the July, 1895 issue of the *Journal*. He received an approving response from across the country. However, Prentice thought that a national organization was premature but would support a state association for scientific purposes. There already existed a New England Association. Prentice's editorial explaining the bill to incorporate The Optical Society of the State of New York, appeared in the *New York Sun*. The Optical Society had been formed April 15, 1895 and was the third such society formed before any legislation was attempted in any state.

A small triumvirate was formed that consisted of Charles Prentice, Andrew Jay Cross and J. J. Mackeown. This trio met in Mr. Boger's office to consider forming a steering committee for an organization. This group, and six other opticians, met September 13, 1895 in Cross's office. Of the nine present, six were primarily interested in the dispensing business. No action was taken at this meeting once the group concluded that more opticians needed to be supportive of such an organization, if it were to be successful. A meeting was scheduled for December 14, 1895 at The Arena located at Broadway and 31st Street. However, after the September meeting, Mr. Mackeown informed Prentice he had contacted his personal attorney, a Mr. Chandon Press. Mr. Press was of the opinion it was feasible to incorporate a society with powers to regulate opticians as had been done by the Dental Society. Up to this time, Mr. Prentice had concealed his intent to introduce legislation but in a private conference with Messrs. Cross and Mackeown, he shared his idea and they unanimously concluded that Prentice should present this plan at the next meeting. During the intervening time, Mr. Press was engaged as Counsel for this yet to be formed organization and received \$1,000 for his services in drafting legislation. Mr. Boger agreed to tour the state to solicit the attendance of opticians at the December meeting.

At the December 14, 1895 meeting Mr. E. B. Meyrowitz was elected chairman of the group for this meeting. It was also at this meeting the plan for an organization as outlined originally by Prentice was read by him to the group. The proposed legislation was, for the first time, publicly disclosed, explained by Mr. Press and endorsed by the assemblage. It was agreed to hold

another meeting January 11, 1896. A few days later, Mr. Meyrowitz asked Mr. Press, the retained counsel, to call on certain members of the New York Ophthalmological Society to get their opinions of the proposed legislation.

There is no further reference to the called January meeting in Prentice's book and memoirs, but a meeting was held February 8, 1896 in Mr. Cross' office attended by a large number of opticians from across the state. At this meeting, Mr. Press gave his report of reactions from oculists interviewed and following the report the dispensing opticians arose and apologized for not being able to be a part of this organization. They wished the others good luck and retired from the room. This left the original 11 men plus Mr. Boger in the room. These eleven opticians were Prentice, Bausch, Cross, Bissell, Mackeown, Kenney, Mason, Appleton, Guy, Newing and Robbins.

Following the opticians' departure, Prentice, addressed the group and told them this was the reaction he expected and that they should proceed to Albany and place the drafted bill before the legislature at once. Mr. Cross cautioned against such hasty action and thought that opticians needed more education to a higher plane of efficiency and increased membership. Since no other attendees seemed in accord with Cross' suggestions, Prentice compared Cross' action to building a house on land you do not own. Furthermore, he stated "oculists don't care how much education we have, but they seriously object to our being allowed to use it. We must strike now". Prentice, many years later, told a meeting in Los Angeles, California in 1923 that it was that moment that determined the future of optometry in the United States. Following this all of the 11 men paid their respective shares of money and officers of the Optical Society of New York were elected. Prentice was elected as President, George Bausch, Vice President, Andrew J. Cross, Secretary and Frederick Boger, Treasurer. The Executive Committee consisted of Messrs Bissell, Bausch, Cross, Mackeown, Kenny and Mason.

Opticians Challenge Oculists

First Attempt to Pass Legislation

Within a week's time of the organization of The Optical Society of the State of New York, a bill was drafted and introduced in the Assembly (House) of the New State Legislature in Albany, New York. It was accorded a hearing before the Committee on Public Health on February 26, 1896. It was during this hearing that Prentice used his "Class Model", his "Astigmatic Eye Model" and another model developed for layman to explain the defects of vision and their correction by lenses. By February 19, 1896 the oculists had been granted a hearing and had already filed briefs in opposition to the bill. In an attempt to pass this legislation on its merits the opticians presented some 600 signatures in support of the bill. Mr. Press described how the groups harmonized and where they differed. Letters were read from prominent physicians and

five volumes of letters were placed in evidence sent by physicians to five of the opticians. Press answered the Committee member's questions and Prentice used the various models referred to above to demonstrate the various defects in vision and the manner of their correction by lenses. Prentice also emphasized that the art of adapting lenses is "the treating of light and not the treating of the eye". In fact, one of his models bore the inscription "A Lens Treats Light" – "Physics Not Physic" – "A Lens Is Not a Pill". It was this particular model that was presented to the Rochester School of Optometry in 1921. Of these three phrases, the latter is the most famous. Following this Prentice read a very lengthy paper entitled "Defense of the Optician".

On March 11, 1896 the Optical Society's bill, No. 727, was favorably reported to the Assembly by the Committee. A few days later, the Chairman of the Committee had the bill brought back and amended. On March 18, 1896 the Committee granted a hearing to the dispensing opticians and oculists opposing the bill. On March 25, 1896 Prentice, Cross, Mackeown and Press called on Committee members in Albany but were unable to have the bill favorably reported. This ended the first attempt to pass an optometry practice act in the State of New York.

A special meeting of the original members of the Society was held at Cross' office on March 28, 1896 to frame a Constitution and By-Laws for the Society. It was also decided at this meeting, by the Executive Committee, to hold the first Society meeting in Syracuse, New York on June 2, 1896. In a subsequent special meeting on April 14, 1896 plans were formalized to hold the meeting at the Yates Hotel in Syracuse. This meeting was well attended by opticians from all over the state. Their interest had been aroused by the Society's legislation and the published program of scientific lectures to be presented by ophthalmologist and opticians at the Syracuse meeting.

Perhaps the most notable aspect of the Syracuse meeting was Prentice's presentation of a paper on "Prismdioptry" and also one entitled "The Optician Treats Light – The Oculist Treats Disease". The latter paper prompted a series of exchanges which were either reprinted or published in the *Optical Journal* from July through September, 1896. Prentice again suggested the title optician to help distinguish refracting from dispensing opticians. Early on he was also opposed to the title "Doctor" and chose the designation "Physical Eye Specialist".

Second Attempt to Pass Legislation

At the annual meeting of the Society on October 6, 1896 at the Fifth Avenue Hotel in New York City, Prentice, presented his revised legislation, Bill 459. This Bill was discussed, amended and presented to the State Assembly on January 28, 1897 where it was referred to the Committee on General Laws. On the advice of a Dr. H. Bendell, an Albany ophthalmologist, Prentice wrote to each medical society in the state to explain his purpose in advocating an Optometry Bill. This Bill received numerous hearings and subsequently was favorably reported by the Committee. It

failed by three votes when acted on by the full Assembly. In the Senate, the Bill was introduced and referred to the Committee on Public Health where the original Bill was amended to specify that two Board members must be physicians. Prentice pointed out in his letter to the medical societies that since it was the responsibility of the State Board of Regents to appoint Board members such an amendment was unnecessary.

However, the real opposition by the ophthalmologists seemed to be an objection to being regulated in any manner by a Board of Optometry and this Bill was never brought up for a hearing. The opposition to the Bill was so strong because it provided for the examination of oculists and opticians engaged in the practice of optometry. In the Bill, Prentice, used the word optometry since opticians were at that time engaged lawfully in the practice of optometry. Optometry being defined as involving a knowledge of theoretical, practical and applied optics, all of which the Bill was seeking to compel qualification. Prentice also felt the use of the title optometrist would assist in decreasing the confusion created by two types of opticians. Following the defeat of this Bill, Prentice, did not attend anymore Society meetings until the optometry practice act was passed in 1908.

In Reflection

In retrospect it is evident that such a bill was not likely to pass during the first attempt given the lack of the establishment of a practice act and its supporting infrastructure. That is to say, the power for such a bill was vested in the Optical Society and not in the State. In the second attempt, the efforts of the organization were devoted to trying to pass the bill on the merits of the argument. Another factor that affected the outcome was that oculists had no education in any optics and were opposed to such an examination.

Beyond this important issue, they felt that medicine already incorporated all those aspects optometry was attempting to bring under its control. At this point in the profession's history, and for many years thereafter, optometry did not clearly understand that the political reality of counting votes was, relatively speaking, more important than the merits of the legislation. It seemed clear that optometry could only control its destiny and not that of the oculists. Being the idealist he was, it is not surprising that Prentice made the decision to bow out of the political arena and devote his energies to other pursuits.

At the Society's June 8, 1897 meeting the defeat of the bill was discussed but Prentice apparently missed this meeting due to illness. However, as a result of advice from friendly ophthalmologists as well as legislators, Prentice visited, by letter, each State Medical Society to explain his interest in the bill. The Society's Executive Committee had also agreed that any Board of Examiners established as a consequence of the passage of this legislation would consist of at least four physicians. Originally as Prentice had written the Bill, Board members

were to be appointed annually by the Board of Regents of the University of the State of New York, two being versed in physiology and pathology and two in practical, theoretical and applied optics. This change essentially placed the profession of optometry in the hands of ophthalmology.

At the October 5, 1897 meeting of the Society Mr. Andrew J. Cross was elected its second President. Although no longer directly involved in the Society, Prentice, did retain his interest in the profession and his efforts continued as he made personal appeals to the Governor, the legislature and ophthalmologists.

This era can be summarized in the following manner. The Optical Society of the State of New York was organized on February 8, 1896. Thus this organization became the third formed before any legislation had been enacted anywhere. The first two states to enact optometry practice acts were Minnesota and California. The bills introduced by these states, while not exactly the same, were patterned after the first optometry bill that had been advocated by The Optical Society of the State of New York and first introduced in 1897. New York became the 13th State to enact its original optometry practice act in 1908.

MOVING FORWARD

With the election of Cross as President of the Society, Prentice, was of the opinion that Cross followed the line of least resistance as exemplified through the belief "One can catch more flies with molasses than vinegar". Cross also earned Prentice's criticism for failing to introduce a bill in the 1898 legislature and coming very close to ruining the aspirations of the Optical Society. According to Prentice, "the weak and irresolute policy of Cross gave medical opponents the opportunity to introduce a bill that placed fear in the heart of opticians, chiropodists, truss makers, bandagists, department stores, and Christian Scientists". If not for the determined interests of the organizations, opticians would have been eliminated.

This scare gave rise to the awareness there was a need for more aggressive leadership of the Society. In 1903 Mr. B. B. Clark of Rochester, New York became the third President serving for the next three years. An aggressive policy was again resumed and another Optometry Bill was introduced in 1904 in which it became necessary to grant exemption to the physicians. The concession of physician exemption and the administration of a Board of Optometry by the New York State Board of Regents resulted in the Bill being passed in the next legislative session on May 8, 1908. Clark appointed E. E. Arrington Chairman of the Legislative Committee and lobbyist for The Optical Society of the State of New York in 1904. Prentice has given full credit to Arrington for his achievement in passing this historic legislation in spite of Arrington's weaknesses of seeking popularity and esteem. It was due to Arrington's persistent efforts that it became possible for other states to follow the example of New York. Interestingly Arrington

never mentions Prentice's earlier efforts in his book entitled *The History of Optometry, Chapter II, Legislative Efforts* (24).

Thus, it had been 12 years since the effort to establish and regulate the profession of optometry had begun in the State of New York. It had proved not possible to regulate the profession through a professional organization or to establish a single standard for all future eye practitioners to qualify alike. Prentice stated it was not his intent through the enactment to establish a new breed of optician, later designated as optometrists, but to establish a law that through agreement with the oculists would lead to a just Ophthalmic Practice Act.

New York State Board of Optometry

It was Arrington's wish that Prentice help the Society prepare plans for carrying out the provisions of the law even though Prentice had not been active in the Society for 10 years. As a result, Prentice, served as the President of the newly formed, or more properly stated, appointed New York State Board of Examiners in Optometry from 1908 to 1918. At the Society's June, 1908 meeting at the Savoy Hotel in New York City, Prentice, had presented his paper in support of a proposal that the subjects for board qualifications for future practitioners should be the following: theoretical optics, practical optics, physiological optics, theoretical optometry, practical optometry, and anatomy and physiology of the eye. Although Cross believed this proposal was too advanced, it was nevertheless approved by the Board of Examiners.

An announcement was made to the optical press that at its meeting on October 8 & 9, 1908 an examination syllabus had been established by the State Board. This syllabus determined that the complete examination would cover six subject areas: Theoretical Optics, Practical Optics, Physiological Optics, Theoretical Optometry, Practical Optometry and Anatomy and Physiology of the Eye. Therefore, the New York State Board of Optometry, with concurrence of the New York State Educational Department, would permit graduates of programs that required at least three month's attendance to take examinations in all subjects except theoretical optics and pathologic conditions of the eye. Thus, the abbreviated examination of 1909 covered limited knowledge. The complete board examination was offered from January 1, 1910.

Prentice served as the President of the New York State Board of Optometry beginning this same year of 1908. The first comprehensive board examinations were administered in early 1910. Downing had decided that since theoretical optics was not being taught by current trade schools this section could be omitted until the 1910 administration of the examination. During the first 18 months of the Board's existence it passed 2,000 candidates for exemption certificates. This served as the nucleus of the first optometrists licensed in the State of New York.

Columbia University Course in Optometry

During a banquet at the Ten Eyck Hotel in Albany, New York, attended by Governor Charles E. Hughes, in 1909, Prentice met Dr. Augustus S. Downing. Many years later Prentice would dedicate the first chapter of his book on "Legalized Optometry" to Governor Hughes for signing the Optometry Practice Act. The second chapter of his "Memoirs" would be dedicated to Dr. Augustus Downing for his support, during Prentice's time as President of the New York State Board of Optometric Examiners. During this time Downing was the First Assistant Commissioner of Education and Director of Professional Education for the State of New York. At a later time, Prentice, brought to Dr. Downing's attention that none of the then current trade schools taught theoretical optics, and this would pose a problem for candidates taking the state board examination.

The Inception of the Columbia University Optometry Course

It was Dr. Downing who introduced Prentice to Professor William Hallock, Head of the Physics Department, Columbia University on December 28, 1909. This was after Dr. Nicholas Murray Bulter, President of Columbia University had consented to establish a course in optometry. Dr. Downing had taken Prentice's plea to heart regarding the need for an optometry course at the university level and conferred with Dr. Bulter in a meeting at Columbia University. Prentice followed his meeting with Hallock with a memorandum on January 3, 1910.

In an unfortunate turn of events, Professor Hallock departed for Europe without notifying Prentice. After this, the program was quickly placed in the hands of Professor J. C. Egbert. Egbert requested that Prentice provide an outline of the expected courses to be taught by the University that would satisfactorily comply with the New York State Education Department. Prentice prepared this synopsis for Professor Egbert in six weeks time. The University would provide instructors in physics and theoretical optics and asked Prentice to lecture as well as provide the names of others who could teach the other subjects.

Equipment and Course Syllabus

Mr. Prentice suggested the names of Andrew J. Cross and Mr. Frederick A. Woll as other possible instructors for this program. A medical faculty was requested from the College of Physicians and Surgeons as the instructor in Anatomy and Physiology. The necessary equipment was solicited or donated from the Bausch and Lomb Optical Company and Stantard Optical Company. Members of the Society individually contributed other necessary items. The synopsis was provided using two copies of five books and rearranging and classifying the pages such that three new books emerged containing subject matter that applied only to the contents designated by the titles "Physiological Optics", "Theoretical Optics", and "Practical Optics". In a memorandum dated April 8, 1910 to Professor Egbert, Prentice expressed his opinion that this

course or program be in the Department of Physics. These new books were bound in Moroccan leather and after approval by the Board of Optometry presented to Columbia University. The cost of printing and binding were paid for by the Society.

Announcement of the Course

Formal announcement of the Course in Optometry at Columbia University was made in the optical press in the spring of 1910. Prentice received several congratulatory telegrams or letters from colleagues about this program on May 10, 1910. At the Society's 1910 Convention in Rochester, New York Prentice announced to the Convention the establishment of the Course in Optometry at Columbia University. This was the first university-based optometry program in America. The University amended the announcement that a collegiate course in optometry was offered by Columbia University in its Extension Education Department to medical and non-medical candidates, the latter of who must have two years of high school training. Prentice also wrote an article for publication in the public press and received the commendation of the *Brooklyn Eagle* on June 23, 1910.

Connection to Alabama

In late 1910 Prentice published a two-leafed folder entitled "An Object Lesson in Optometry" designed to explain to the public the corrective effect of lenses on defective vision. This folder was also printed and distributed by the American Optical Association for legislators where legislation was in progress. This folder's contents was endorsed by Professor James P.C. Southall from Alabama Polytechnic Institute, Department of Physics, Auburn, Alabama in a letter dated December 15, 1910. Southall was to become a Professor in the Department of Physics and Director of the Columbia University Optometry Program in 1914. He also published several well-known books. The first book was *Principles of Geometrical Optics* published in 1910, the second was *Mirrors, Prisms and Lenses* published first in 1918 and revised in 1923 and 1934. Southall was also the Editor of the American Edition of Helmholtz's *Physiological Optics*.

Medical Opposition to the Optometry Program

Not surprisingly, shortly after the optometry course had begun in October 1910 the medical instructor, Dr. Opitz, had withdrawn his services as a result of objections made by the faculty of the College of Physicians and Surgeons. Another faculty was found, Dr. Louis R. Welzmilller, to take Opitz's place. The oculists continued to petition the President and others at Columbia to eliminate the optometry courses. They were promptly referred to Albany and the State Legislature.

Other Personalities and Issues

Prentice and Cross

Prentice did not care for Andrew J. Cross since, in Prentice's opinion, the latter sought popularity and esteem. Cross had been one of the original three men who began the effort for organizational and legal recognition of optometry. It was Cross' willingness to compromise that seemed to disturb Prentice the most. Prentice was of the opinion that Cross had been a less than forceful leader when President of the Optical Society of New York. He thought that Cross and, later his loyal syncophant, Arrington were at opposite ends of the same appendage. Prentice thought Arrington was at the barking end and Cross the wagging end. In addition, Cross favored the title "doctor" for optometrists which Prentice opposed.

Cross did much to develop the technique of dynamic retinoscopy for clinical practice. According to Prentice, as learned from Burnett, it was Bowman who first discussed the possibility of applying the skiascopy mirror for measurement of refractive error. However, Bowman did not pursue the clinical development of this subject. Certainly Cross did much to popularize dynamic retinoscopy within optometry. In this technique the patient fixated the light or a near target rather than a distance object. The advantage of this technique was that it rendered cycloplegia unnecessary and gave the clinician insight as to the response of accommodation and convergence. Static skiametry was performed through a dilated pupil and thus not utilized by early optometrists. Also for many years he worked to develop a monocentric bifocal and, near the end of his professional career, this lens went into production.

Cross was elected the second President of the Optical Society of the State of New York in 1898 and the President of the American Association of Opticians in 1900. (It became the American Optical Association in 1910 and the American Optometric Association in 1918). According to Hirsch and Wick, Cross was an unusual man but imbued with a vision that moved optometry forward. Cross recognized the need for education and helped establish the New York Institute of Optometry which never came into being because Prentice offered him the instructorship position at Columbia University. One of Cross' greatest assets was his ability to get people to work together. It was Cross and Arrington who worked together to secure legislative success not only in New York but on a national basis.

Prentice's Goals and the Title Doctor of Optometry

Prentice's primary goal from the beginning of his efforts to pass legislation was the establishment of a just and uniform ophthalmic practice act. His desire was for both optometry and ophthalmology to have education in optics and refraction (optometry) and co-related medicine and surgery. He did not support the title of "doctor" and even went so far as to have an amendment (S.B. 868) introduced to the New York State Optometry Practice Act on

February 13, 1913. This bill would prohibit such a title unless conferred by a duly authorized college or university. He had instigated the amendment on November 29, 1912 and was aware by February 5, 1913 of its introduction the next week. This was no doubt an unpopular move by Prentice.

Conflicts Between Prentice, Cross and Arrington

Beginning in 1912 Prentice exchanged correspondence with both Arrington and Cross regarding their views versus his own on several issues. It is clear Cross and Arrington had differing ideas and goals than Prentice. No doubt all three of these men were considering how posterity would view their respective roles in the history of the founding of the profession. Prentice reiterates his belief that qualifications in optics is the only excuse for the practice of optometry as a special branch of applied science. He also believed the public was best served from the services of the practitioner who has had accredited knowledge of both optics and medicine. One of his great disappointments was the exemption granted oculists in the very beginning from the optometry practice act. Prentice felt that if oculists realized their own situation (shortcomings) in this area they would ask for a proper modification of optometry laws to establish the logical ophthalmic practice acts. Other issues were related to who should receive credit for the optometry law, of being ahead of the times regarding educational requirements, securing uniform ophthalmic practice acts with one class of practitioners and the title doctor. This brief outline illustrates some of the differences in philosophy and approach.

Resignation From the New York State Society

On May 12, 1913 Prentice resigned from the Optical Society of the State of New York over the issue of the incoming President insisting on using the title doctor based on a degree known to be for sale by so-called chartered colleges in another state. This action was part of the ongoing disagreement Prentice had with Cross on what Prentice perceived as Cross's approach to issues and character. It is difficult to perceive that many contemporary optometrists would agree with Prentice on issues related to title and scope of practice. In spite of either Cross or Arrington's failings, or perceived failings, it seems they were both politically pragmatic.

OTHER PROJECTS

Prentice spent much time between 1912 and 1921 working on contributions to the American Encyclopedia of Ophthalmology in the area of Physical and Physiological Optics. Prentice and Dr. Casey Wood, the Editor-in-Chief, had many exchanges regarding the status of optometry and its rightful title. Unfortunately the beginning of World War I prevented a conclusion of this discussion. These discussions were not resumed following the conclusion of the War.

Prentice learned of the intention of The Ohio State University to begin an optometry program in its Department of Physics. He wrote to OSU President W. O. Thompson and received a reply on August 29, 1914. This program began in 1914 as a two-year course and became a four year program in 1915 with a B. S. degree in Applied Optics from the College of Engineering. There can be little doubt that the inception of the OSU program and, later the University of California at Berkeley, was influenced by the existence of the program at Columbia University.

Resignation From the Board of Examiners in Optometry

In a letter dated May 15, 1918 Prentice resigned from the New York State Board of Examiners in Optometry for reasons of health. He was now 64 years of age and had served for 10 years. Likewise, after seven years, he had completed his contributions to the Encyclopedia of Ophthalmology of which the last volume was published in 1921. He sold his practice as well in 1921 to his assistant Mr. Perry Hanuer. Prentice moved to the Pacific coast area of British Columbia that same year following his retirement. On March 17, 1926 he received a letter from Professor Southall informing him the optometry program at Columbia continued to flourish and that a new four-year curriculum leading to a B.S. degree, as well as a certificate of graduation in optometry, would be offered under the direct supervision of the Council of the University. This meant the optometry program would no longer be under the University Extension Program.

The Optometry Program at Columbia University was in existence from 1910 until 1950 when the decision was made by the University to close the program. The last students of the program graduated in 1954.

Legalized Optometry and the Memoirs of its Founder

It is not clear in what year Prentice began writing this book. The book is 416 pages in total length. It was published in 1926 by Casperian Fletcher Press, Publishers, Seattle, Washington. The Preface from the publisher is dated May 1, 1926. This book was divided into two chapters. The first chapter is 179 pages in length and describes the events and issues related to the founding and legalization of the profession at its inception. It provides great detail of the various individuals involved and the actions taken that led to the legalization of the profession in New York and other states. It is both striking and remarkable that in many ways the behaviors of those opposed to optometry has not changed in 120 years.

The second chapter is 199 pages not counting the Author's Preface or Postscript and the Back Matter. This chapter is the Memoir portion of the book and describes Prentice's life, family, his entry into the profession, and participation in various professional organizations and boards, the beginning of university optometric education and his various publications. The Postscript to this chapter is dated August 1926. Prentice died on July 2, 1946 at age 92 having never

remarried. He was a courageous, if idealist man, who deserves the credit of the title “Father of Optometry” even though he was not successful in passing legislation in the State of New York. He took a position for the establishment of an independent profession that otherwise might not have come into existence and contributed to its early formation in many valuable ways. For any optometry student, optometry resident, or optometrist who wants to understand the heritage of the profession this book is highly recommended.

REFERENCES

1. Prentice CF. Legalized Optometry and the Memoirs of its Founder. Casperian Fletcher Press, Publishers, Seattle, WA, 1926; 1-416.
2. Classe JG. The Legal Asects of Optometry. Part One/History. Optometry – A Legal History. Butterworth Publishers, 1989; 3-48.

APPENDIX II

ALABAMA LEGISLATIVE PROCESS

INTRODUCTION

For those unfamiliar with the legislative process in Alabama the efforts of the ALOA will have even more meaning if the process is described in general terms. The success of the ALOA over the years of its existence is impressive considering the complexity of the process. The legislative process that exists today has undoubtedly changed some over the years but its main elements remain the same. This second appendix provides an outline of the steps necessary to enact a law in the State of Alabama. This outline provides some context concerning the difficulty the members of the ALOA encountered for each law enacted. This is made all the more remarkable given the circumstances surrounding these efforts. All legislation undertaken by the ALOA was done so through efforts of its officers, trustees and members on a volunteer basis. The ALOA did not have an Executive Director or staff members until 1975

LEGISLATIVE PROCESS

In the example of the ALOA, the leadership of the Association, such as the President, Board of Directors, Governmental Relations Committee or other entity such as the Alabama Board of Optometry, will request or suggest specific legislation. If such an effort is approved by the ALOA Board of Directors, a standing or ad hoc committee is charged by the President to draft the legislation or an outline of such legislation. This effort also now includes the Executive Director (Amanda Buttenshaw) but the ALOA did not have the executive director position until 1975. The draft of the bill may then be circulated among committee members, officers or other individuals with specific knowledge or experience for comment related to its content. The final draft of the bill is then sent to the Legislative Reference Service (LRS) of the State of Alabama to ensure it is in the proper format and language.

Before, during the same time, or perhaps following the drafted legislation, sponsors and co-sponsors are identified in the House and Senate. The sponsors are the elected officials who will introduce the bill and guide it through the legislative process. The ease of obtaining sponsorships is, to some degree, a measure or indicator of the benefit, clarity of intent and purpose, and future legislative success of the bill.

Once a bill is introduced in the House or Senate it will be given a first reading and then assigned to a committee by the Speaker of the House and in the Senate by the Presiding Officer of the Senate. The assignment of a bill to a committee is an important step in the legislative process. It is important, to the extent possible, for the organization or group proposing the legislation to suggest or have input into the process when the decision is made as to which committee the

bill will be assigned. In many instances healthcare legislation will be assigned to the Committee on Health in one of the chambers. The bill may then be assigned a public hearing by the Committee to which it has been assigned. In fact, a public hearing may be called when the opponents of the legislation request a hearing. Failure to secure some form of hearing will most likely result in the bill dying. If scheduled for a hearing, the bill will be discussed by the committee and it may be amended, tabled or a substitution bill offered at any time it is before the respective House or Senate committee. The bill may die in committee from lack of action or by vote.

If the bill passes the committee, it is then sent to the House or Senate for a second reading and placement on the Special Order calendar by the Chair of the Rules committee. When the bill comes up for discussion it may again be amended, debated, tabled or a substitute offered. If the bill moves forward, it is read again a third time and voted on by the full House or Senate. The bill may be sent to the other chamber for consideration if there are differences in the versions of the bill. It is also possible that one chamber may vote to accept the chambers version of the bill as opposed to passing two separate bills and having to send these bills to a Conference Committee.

If the bill, in identical form, is passed by the House and Senate it is returned to each chamber to be enrolled and signed by the presiding officer of each body. The bill then goes to the Governor for signature. If the Governor signs the bill it becomes law. If the Governor does not act on the bill within a specified number of days, it may become law without his or her signature. If the Governor vetoes the bill, the veto may be overridden by a simple majority vote in both chambers. If not re-passed, the bill is dead.

If the bill passes with an amendment from one chamber and the other chamber concurs, it is enrolled, signed by both presiding officers and sent to the Governor for signature. If there is not concurrence, the bill may be sent to a Conference committee composed of members of each chamber as appointed by the presiding officer. If the Conference Committee agrees to a compromise, a report of the Committee is then sent to both chambers. If there is no Conference Committee report, the bill dies from a lack of action or another Conference Committee may be appointed to resolve the differences. If both chambers accept the compromise, the bill is enrolled, signed by the presiding officers of each chamber and sent to the Governor.

The process of passing legislation is both complex and deliberate by design. The process is structured to prevent hasty action and ensures that no bill becomes law without ample opportunity for due consideration and input from all interested parties. For this reason, good legislation often takes years to pass. The long-term nature of this process is often to the irritation and anxiety of its proponents and the delight of its detractors. In many situations it is

only by persistence that good legislation becomes law. Clearly this was the case in passing several of the optometry laws in the State of Alabama.

APPENDIX III

THE CHRONOLOGICAL ENACTMENT OF ORIGINAL OPTOMETRY PRACTICE ACTS

DATA PROVIDED BY AMERICAN OPTOMETRIC ASSOCIATION

YEAR THE LAW PASSED	STATE	CHRONOLOGICAL RANK
1901	MINNESOTA	1
1903	CALIFORNIA	2
1903	NORTH DAKOTA	3
1905	OREGON	4
1905	NEW MEXICO	5
1907	ARIZONA	6
1907	MONTANA	7
1907	IDAHO	8
1907	UTAH	9
1907	TENNESSEE	10
1907	INDIANA	11
1907	NEBRASKA	12
1908	NEW YORK	13
1909	VERMONT	14
1909	WEST VIRGINIA	15
1909	NORTH CAROLINA	16
1909	DELAWARE	17

1909	MAINE	18
1909	WASHINGTON	19
1909	IOWA	20
1909	RHODE ISLAND	21
1909	KANSAS	22
1909	MICHIGAN	23
1909	FLORIDA	24
1911	OKLAHOMA	25
1911	NEW HAMPSHIRE	26
1912	MASSACHUSETTS	27
1913	SOUTH DAKOTA	28
1913	NEVADA	29
1913	COLORADO	30
1913	CONNECTICUT	31
1914	MARYLAND	32
1914	NEW JERSEY	33
1915	ARKANSAS	34
1915	WISCONSIN	35
1916	VIRGINIA	36
1916	GEORGIA	37
1917	SOUTH CAROLINA	38
1917	WYOMING	39
1917	PENNSYLVANIA	40
1918	LOUISIANA	41

1919	OHIO	42
1919	ILLINOIS	43
1919	ALABAMA	44
1920	MISSISSIPPI	45
1920	KENTUCKY	46
1921	MISSOURI	47
1921	TEXAS	48
1924	DISTRICT OF COLUMBIA	49
	TERRITORIAL ENACTMENT	
1917	HAWAII	50
1917	ALASKA	51
1982	GUAM	52
	COMMONWEALTH ENACTMENT	
1984	PUERTO RICO	53