

"It was a fantastic experience"

By Norman Wahl, DDS, MS

Early in 1927, Dr. Edward H. Angle closed the doors of his fourth and last school, The Angle College of Orthodontia. During intermittent periods since 1900, Angle had turned out almost 200 orthodontic pioneers and leaders. Now these leaders were concerned about the future of their profession and were asking: should the study of dentistry's first recognized specialty be left in the hands of the mechanistic "diploma mills"? How could future orthodontists be instilled with the high ideals set by Angle? Who would pick up the gauntlet?

In the three-part "roundtable" which follows, we shall find out how this challenge was met. The nine "participants" are former University of Illinois faculty members and students. Two of these, Drs. Angel and Furstman, recalled their experiences during recent interviews. The other seven speak through the medium of the printed page, their recollections having been published between 1930 and 1975. Continuity is supplied by the moderator. With the exception of some of Dr. Goldstein's remarks, which have been paraphrased to conform to the past tense, all statements herein are direct quotations. The participants are:

Fred J. Angel, Class of 1935

Allan G. Brodie, Former Chairman, Department of Orthodontics



Lawrence L. Furstman, Class of 1934
Abraham Goldstein, Class of 1932; later, an instructor
Robert R. McGonagle, Class of 1948
Ernest Myer, Class of 1931; later, an instructor
Frederick B. Noyes, Angle graduate and Former Dean, College of Dentistry
George H. Prewitt, Class of 1935
Chester F. Wright, Class of 1931

College of Dentistry (the "Old Building") at 1838 W. Harrison Street, built in 1881. Originally the College of Physicians and Surgeons, it was used by the University of Illinois from 1901 to 1937. Courtesy, University of Illinois Archives.

I.

"Alarm and fear." Establishing the department.
Getting in. "Humble beginnings"

Moderator: Gentlemen, could someone describe the situation with respect to orthodontic education during the mid-1920s?

Dr. Noyes: The status of orthodontia in the colleges of dentistry was not much better than it had been when Dr. Angle had sought to teach in them. The proprietary schools had not progressed beyond the three-month mechanical training program.¹

Dr. Myer: The orthodontic profession was in a very chaotic condition. There was a great deal of heat but no light. The profession was led by emotion rather than knowledge. Many of our former ideas could not stand in the light of present knowledge.²

Moderator: How could one obtain orthodontic training at that time?

Dr. Wright: Becoming a competent orthodontist prior to 1930 was no small task — it was a major undertaking. The colleges and universities had entrusted orthodontic education to private schools and these were the order of the day. The aspirant had a choice of one of three such schools. Two of these offered courses of eight weeks duration conducted at intervals throughout the year. . . . The third school (The Angle College) offered a full year of instruction. Entrance requirements to the former were the possession of the DDS degree and a letter of recommendation indicating good intentions on the part of the applicant.

These short-session schools were operated upon the belief that orthodontia was a part of dentistry not unlike crown and bridge, or prosthetics and that an adequate orthodontic training could be acquired in a short concentrated course following the conventional dental training. . . .

Lectures consisted of the most elementary considerations of the denture, theories regarding tooth movement, and etiology with reference to malocclusion. . . . Three mornings each week were spent in an orthodontic clinic observing appliance manipulation and its results. The remainder of the time was devoted to the mechanics of orthodontia at the laboratory bench. There were neither assignments, quizzes, nor examinations and, believe it or not, the diploma was granted without the candidate even having had the meager experience of placing a separation wire in the mouth of a patient.³

Moderator: How did the profession react to the closure of the Angle College?

Dr. Wright: Alarm and fear for the future of orthodontia was apparent on every hand. There were those who were still content to push teeth into some semblance of an alignment and to them, the short concentrated course with mechanical training was sufficient. Quite naturally, they defended the proprietary school.³

Dr. Noyes: The question was in the mind of every Angle-trained man. "Is there no way by which the advantages of Dr. Angle's methods of teaching. . . can be preserved and advanced?" The establishment of another proprietary school was out of the question.¹

Dr. Wright: On the other hand, there were those who were convinced that the destiny of orthodontia lay in the application of fundamental biological knowledge. To them it was clear that organized effort and leadership were needed to reaffirm the basic concepts of occlusion upon which orthodontia was founded. . . . They believed this could best be done by the university.

Just as Dr. Angle had the courage to take orthodontia out of the universities in order to demonstrate its mission, another brilliant orthodontist had the courage to bring it back and in so doing place it on a comprehensive graduate level. Dr. Noyes . . . knew that only . . . where men of widely diverse scientific interests work together, derive mutual help, and are subject to mutual restraint, could orthodontia maintain its position as an integral division of applied science. So firmly was he convinced of this that in 1930 he succeeded in establishing a graduate course of study in orthodontia at the University of Illinois.³

Dr. Noyes: Faced with these conditions an effort was made to interest Dr. Carmichael, Dean of the Graduate School of the University of Illinois, in establishing a course of training in orthodontia at the graduate level. This would be a new departure in clinical dental science but Dr. Carmichael did not hesitate on those grounds. His sole insistence was that the work given actually be of graduate calibre, which meant that all control of courses be vested in the graduate faculty. . . . Successful completion requirements would lead to the degree of Master of Science. The Board of Trustees authorized the course as laid out and granted a small budget, together with a salary of \$4,500.00 for a half-time man to direct the work. For a year no man could be found.¹

Dr. Goldstein: After considerable search . . . Dr. Noyes recommended Dr. Allan G. Brodie for appointment as professor of graduate orthodontia. For the first time in history, the specialty of orthodontia had become officially recognized by a great university as being sufficiently

important to deserve graduate rank. Through this recognition all the facilities of the Graduate School including the Schools of Medicine and Dentistry were made available for the teaching of orthodontia.⁴

Dr. Wright: It now seems oddly prophetic that Dr. Brodie, a member of Dr. Angle's last formal class, was given the post.³

Dr. Brodie: When the department ... was established ... in the fall of 1929, a small, two-page announcement was printed for the benefit of applicants. In this announcement three objectives were set forth. They were (1) the training of scientific practitioners of orthodontia, (2) the conducting of research, and (3) the training of teachers.⁵

Moderator: Dr. Furstman, Dr. Angel, when you applied to Illinois, were there any other opportunities for graduate orthodontic training?

Dr. Furstman: No, the only other ones were the short courses, like in Kansas City they had a two-week course (The International School). And then there was another one in New York (The Dewey School) of 30 days, but nothing that was very formal where you could get a graduate degree.

Moderator: How did you get interested in ortho?

Dr. Furstman: My father was a physician, and he recommended that I become an orthodontist. He thought it was the coming field.

Dr. Angel: When I was 13, I had my teeth straightened by Dr. Cecil Steiner, so I became very interested in the profession at that time. Steiner, in turn, took an interest in me and put me to work in his office during the summer, doing lab work. So I decided that's what I wanted to do. During my last summer in high school, he introduced me to Dr. Angle and, for the next three summers I studied with him and worked in his laboratory at his home in Pasadena. I also attended some of the lectures at the school. Needless to say, it was the experience of a lifetime.

Moderator: Dr. Wright, how did you take the big step from proprietary school to the first class at Illinois?

Dr. Wright: At a reunion of graduates of the school in which I had received my orthodontic instruction, one of my classmates introduced a guest (Dr. Brodie) and mentioned that he was a graduate of the Angle College. ... I can assure you that (the discussions) were warm because no love was lost between the followers of the two schools. Our guest was bombarded with questions concerning everything from appliance design to "Simon's Systematic Diagnosis of



Dr. Frederick B. Noyes,
Dean of the College of
Dentistry, 1924-1940.
Courtesy, University of
Illinois Archives.

Dental Anomalies." Each question brought forth a calm and scholarly answer based on scientific evidence which I, and most of my colleagues with our superficial knowledge, could follow only with difficulty. ...

This was a shock rude enough to convince me that I would have to return to school for further training in the fundamental sciences. When I inquired of our guest about the Angle College he informed me that it had closed its doors. This made the future look dark indeed. ...³

Moderator: But later, didn't Dr. Brodie carry on a "correspondence course" with you?

Dr. Wright: For some two years I followed this plan. ... It was a slow and laborious process but some progress was made. In the midst of this struggle I received a telephone call one night ... that he was moving to Chicago and was to head a Department of Graduate Orthodontia at the University of Illinois. ... It was discouraging to learn that I could not qualify for the training to be offered in this new curriculum. However, there remained about three months in which to convince someone that I should be afforded the opportunity. With the help of both Dr. Noyes and Dr. Brodie I became a member of the first class. I trust that ... it vividly illustrates the disillusionment and confusion that attended the acquisition of orthodontic training in 1925 and how even chance played a part.³

Moderator: Dr. Angel, did you finally get to study formally under Dr. Angle?

Dr. Angel: Of course, I was hoping that I could take my graduate work with him, but he

Class of 1934, Department of Orthodontia. From left to right, Drs. Tobiasz, Steadman, and Furstman. Courtesy University of Illinois at Chicago. The University Library. University Archives.



passed away a year or two before I finished dental school. So Dr. Steiner suggested that I try to get into Illinois under Dr. Brodie.

Moderator: What did you have to do to get accepted?

Dr. Angel: I had to submit a transcript of all my grades. Then, of course, I had a letter or recommendation from Dr. Steiner. There must have been a couple hundred applicants for only five places, so I considered myself very fortunate to be one of those five.

Moderator: Were there any other schools available to you at that time?

Dr. Angel: Cal had a course at that time and there were a few others, but Steiner said "There's only one course for you and that's Illinois."

Moderator: What made Illinois stand out as the graduate course of choice?

Dr. Angel: Probably Dr. Brodie's reputation as one of Dr. Angle's outstanding pupils, and as one of the profession's finest teachers.

Moderator: To help clarify the issue of available schools, let me read from a letter I received (in January, 1989) from Tod (Dr. B.F.) Dewel: "I do not believe established graduate orthodontic programs really existed in the *early* 1920s and I do not recall any full-time undergraduate orthodontic chairmen at that time. But there were a few qualified dentists treating orthodontic patients at Northwestern, Columbia, Pennsylvania and Michigan during the middle 1920s under supervision by part-time undergraduate orthodontic teachers. The students may have received certificates but not graduate degrees... By that time (1930) most of the other schools (above) had established their graduate programs full time..."

Dr. Dewel also mentions that, as a full-time teaching assistant and orthodontic instructor at the University of Iowa, he helped establish that

school's full-time graduate program in 1928.

Now, Dr. Furstman, how did you go about applying to orthodontic school?

Dr. Furstman: I wasn't sure that I wanted to do that so I took an internship and residency in oral surgery at Cedars of Lebanon Hospital (in Los Angeles). But, after a year, I decided that oral surgery wasn't what I wanted. So I started inquiring about orthodontic schools. At that time, there was a school in London. Some American company had it — Eastman Dental Clinic I think it was — but they didn't answer my letters.

They had Cal in San Francisco that was just getting started — a graduate level course — and I was accepted there right away. I also heard about the University of Illinois, so I wrote to Dr. Brodie and I received a nice letter from him, but he said he wouldn't take me unless I did certain work ahead of time. That kind of piqued my interest, since California would have taken me without any strings attached.

Moderator: What kind of work did Dr. Brodie want you to do?

Dr. Furstman: He wanted me to study with Malcolm McKenzie (an Angle graduate), to go through several textbooks like Angle's Seventh Edition, etc., which I did. I was still interning at Cedars, so I'd go to McKenzie's office at least once a week and he'd give me an assignment. I did that for about a year, in addition to which I started to re-study histology and gross anatomy. Then, in 1932, I was accepted.

Dr. Brodie: At Illinois a preliminary period of preparation has always been demanded. This takes the form of a thorough review of the anatomy of the head and neck with emphasis on osteology, myology and syndesmology, histology of the dental tissues, dental anatomy, general and dental embryology.⁶



Moderator: In order to get a master's degree, you had to take eight units. Four of those units were in orthodontia, and two units each in anatomy and histology. Actually, you ended up with eleven or more units, as the course extended for a full calendar year, with August as the vacation period.⁷

Dr. Myer, what was it like being a member of Dr. Brodie's first class?

Dr. Myer: On a dreary morning, typical of early February in Chicago, Doctors Bell, Downs, Jentzsch, Naftzger, Wright and myself, met with Dr. Noyes and Dr. Brodie in the old school building. The year was 1930. Dr. Noyes gave us a brief summary of the path orthodontic education had pursued until that time and spoke of his desire to establish such work at the graduate level in the university.

Dr. Brodie spoke on the aims that had been set up for this department. . . . These aims I believe are still the objectives of the department. With these remarks by Dr. Noyes and Dr. Brodie the Graduate Department of Orthodontia of the University of Illinois was officially opened.

In those days the course started with two days of written examinations, designed to determine whether the advised preliminary studying had been done. . . . The results must have been discouraging because Dr. Brodie started right from scratch. He spent a great deal of time with us in the mornings and some afternoons.²

Moderator: Dr. Furstman, who was in your class?

Dr. Furstman: I was in the third class. I had only two classmates: Sherwood Steadman, who had been a graduate of Princeton before he went to the University of Minnesota; and Olga Tobiasz, who had just finished the course in orthodontics at Northwestern. She had decided

to take the course at Illinois because she wasn't pleased with what she learned at Northwestern.

Dr. Myer: One must realize the humble beginnings of the department to be able to appreciate what it has become. The Old Building was of a period characterized by architecture of the Rube Goldberg variety. It was cut up and seemingly twisted, with the floors set at half levels and quarter levels and tied together with circular staircases where death forever lurked. It was scrupulously clean, kept so by "Old Faithful" Paul but nevertheless a far, far cry from the fine building that houses the department today.²

Moderator: Dr. Brodie, what were some of the difficulties you experienced from the faculty point of view?

Dr. Brodie: During the early years the department suffered under some very trying difficulties some of which were of a physical nature and some of which were less tangible. At first we were quartered with the undergraduate departments of Orthodontia and Children's Dentistry, where by adroit scheduling only, we were able to keep the three ventures from becoming entangled. The clinic was equipped with two rows of four chairs and tables each and these left little room to move around. The space behind this was divided into an inside waiting room and a long narrow laboratory. . . .

In back of the waiting room and laboratory were two other small rooms. One was dignified by the label "Department Office." It barely held a roll-top desk and this served for all three departments. The other originally designed as a rest room for worn out mothers . . . was taken over by us when not otherwise occupied, as a seminar room. It held two white-enamelled-top kitchen tables which had to be placed end to end and even then left only sitting room at the sides. If

Class of 1935, Department of Orthodontia. From left to right, Drs. Sturman, Prewitt, Truesdell, Angel, and Lewis. Courtesy University of Illinois at Chicago. The University Library. University Archives.

anyone wished to leave during a session the whole group had to cooperate. . . .

All laboratory benches and the Angle Wuerpel tables had been designed by Dr. Sippy, who was in charge of undergraduate orthodontic instruction and who was well over six feet tall. He liked to work standing up and without bending over so he designed his furniture accordingly. The rest of us had to climb up on draftsmen's stools to work at the laboratory benches. In the clinic we had to be careful not to bump our heads against the sides of the tables.⁸

Moderator: What about the "less tangible" difficulties?

Dr. Brodie: When the course was opened certain principles were laid down and these principles became the subject of considerable propaganda that was used against us. The first of these was that we would accept only full time students for training. Every other school was offering part time courses so that the students could "earn and learn" simultaneously. We restricted cases to a number of six to a man and this also caused much raucous laughter. Stu-

dents from other schools boasted that they were treating forty to fifty. . . .

Finally, we taught only one appliance and for this we were criticized from one end of the country to the other as Angle appliance salesmen and narrow minded bigots. While other schools were attracting classes of ten to twenty men, we were forced to be satisfied with two some years and our capacity of six was attained only two or three times. Only the enthusiasm of our own students and their insistence that we stick to our principles kept us going.⁸

Part II of "*It was a fantastic experience*" will appear in the winter edition of *The Angle Orthodontist*.

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