

Century's End—It's been quite a Trip!

Reflecting on Dentistry

Dentistry has had a great ride! At century's end we can reflect back and be very proud. Look at any and all aspects of our profession. We have:

- created an identifiable and creditable academic base;
- contributed valid and usable findings in the biologic and material sciences;
- emphasized a steadfast adherence to correct ethical principles;
- stressed involvement and active participation in our communities;
- developed learned societies, academies, and organizations;
- been a willing and active participant in our nation's armed forces during war and peace;
- developed and carried out business practices that were sensible and affordable to our patients;
- without fanfare, widened the female gender's involvement in every aspect of dentistry;
- and last, but not finally, recognized our global responsibilities by sharing and spreading our knowledge in ever increasing amounts throughout the entire world.

Viewed singularly, dentistry's achievements in this past century are quite noteworthy. Taken together, the achievements and the example they set are positively breathtaking. If one can step back and view the total achievement, the overwhelming conclusion that can be drawn is

that sensible, caring, and concerned professionals have worked at creating the best in oral health care. They developed systems that delivered this care in ways best for the patient. And these same dental pioneers did it with little thought given to making a "quick buck" or by any means advertising themselves into notoriety.

In today's light these pioneers might be pictured as plodders, but their century-end accomplishments prove that they were listeners, compromisers, planners, hard workers, testers, supporters, mentors, developers, contributors, and en visionaries. The evidence speaks for itself!

Reflecting on The Specialty

We know too that the specialty of prosthodontics evolved during this century. Its achievements have been similar to and no less remarkable than those of its dental parent.

At the turn of the century widely spread clinicians decided that organized groups would better allow them to study and amass information in the disciplines of their interest. One such group formed itself in 1918 as The National Society of Denture Prosthetists (later called The Academy of Denture Prosthetics and today called The Academy of Prosthodontics). Other groups forming were the American Denture Society (now the American Prosthodontic Society) and the Pacific Coast Society of Prosthodontists.

In mid century trained men in these groups saw the need for the American Dental Association to recognize a specialty in prosthodontics. Nine founders incorporated The American Board of Prosthodontics in February 1947, and in 1949 the first group of Board members, 64 members strong, was recognized.

These same groups envisioned a quality journal dedicated to advancing knowledge and research in prosthodontics, thereby strengthening the specialty. In 1951 The Academy of Denture Prosthetics, The American Prosthodontic Society and The Pacific Coast Society of Prosthodontists formed an Editorial

Board to work with the Mosby, Inc. publishing company in initiating one of the most successful dental journals ever, *The Journal of Prosthetic Dentistry*. A viable specialty was well on its way!

The men who in the decades between 1910 and 1960 worked tirelessly to lay the good foundations for the specialty of prosthodontics were exceptional individuals. A few remain, most are gone. Their greatest achievement, the specialty, remains strong. At century's end we cannot help but reflect, and say Thank You! □

A Talk with a 20th Century Dentist

In order to better tell the story of prosthodontics in this century, ProsStars interviewed Dr. Louis Blatterfein in his New York City apartment on August 8, 1999. Dr. Blatterfein started dental school at New York University in 1929, and graduated in 1932. At graduation he was 21 years old. He served on NYU's faculty for over 60 years, and retired as Professor. He is a Charter Member of the American Board of Prosthodontics. He served as a Section Editor of *The Journal of Prosthetic Dentistry* for over 17 years. He developed, taught and popularized precision and semi precision attachment removable partial denture techniques, one of only a very few currently used RPD techniques. Dr. Blatterfein is 88 years old.

[The questions are ProsStars'; the responses, Dr. Blatterfein's.]

How did you get your start in prosthodontics, Dr. Blatterfein?

I was a very fortunate young person in prosthodontics. During my dental school years I was taught by Clyde Schuyler, Merrill Swenson, and Vincent Trapozzano. Dr. Swenson was the department chairman my senior year. In memory of that I have an original of his Complete Dentures textbook that he autographed personally for me.

Tell me about Dr. Swenson.

During his time, Swenson was very special. He was a very pragmatic person. His predecessor, Dr. Schuyler was technical and dogmatic - you couldn't change him.

How did Swenson change the techniques?

Schuyler was using a sectional compound impression. Swenson began taking impressions with Dentacol - no more plaster breakouts. Swenson, being interested in hydrocolloid, sought out Dr. [F.M.] Hight who was using it to duplicate casts. Swenson pirated a laboratory

technician, Mossberger, from Dr. Hight's office and brought him to NYU in order to help make removable partial denture castings. At that time they were having trouble with casting investments because there wasn't sufficient expansion (they still couldn't cast crowns). Kerr developed Crystobalite casting investment and also the Control Powder, which could modify the expansions [for inlay castings]. In the middle 30s Kerr came out with a modeling investment that had the right expansion to make up for the contraction of gold, and you were then able to make a bilateral removable partial denture casting that would fit.

How did this alter RPD techniques?

Before that we had to make sectional castings and solder them together. Being able to cast one piece frameworks lessened the need for wrought wire clasps. Before hydrocolloid [duplicating material and modern day casting investments] we had to bend wrought wire clasps. In those days you could put the clasp anywhere you wanted but you had the torque of the clasp. You would put a little platinum for an occlusal rest, and solder everything to the lingual or palatal bar. This was the way partial dentures were made. Finally, with the cast partial framework you had to consider the contour of the tooth, and Wolf developed the surveyor.

Explain your involvement with the precision attachment.

In the early 30s fixed [partial dentures] were described as garbage. As I said, cast crowns were not being made and shell crowns with soldered pin facings were used. They didn't fit; they were dirty; there were open margins; and people would return because wanted cleanliness. Following graduation I worked in an elite private office that instead used one and two tooth removable unilateral bridges using Herman Chayes attachments. They had to be parallel. Chayes bridgework, now called precision attachments, was the Lexus of dentistry, compared to a Chevrolet, and I saw and learned their use in this private office. As a point aside, this office was one of few that did root canal treatments on molars. They used an ionization machine that used iodine and an electrode in the canal with current for half an hour. But it was also said that the best treatment for a root canal was the forceps. To answer your question, I begin the use of precision attachments in this private office.

How did this technique become incorporated into removable partial dentures?

Dr. Swenson asked me to join the faculty at NYU. I worked in complete dentures for one year, and then because I had the experience in the private office moved to removable partial dentures. Dr. Swenson was advocating cast partial dentures and Dr. Schuyler wanted to stick to wrought wire partial dentures. This put me in a difficult position although I knew the advantages of the cast framework. Who would want to bend wrought wires? We

compromised by doing half and half, and later Schuyler became interested in occlusion and finally moved from Montclair, New Jersey to Florida.

What other developments influenced your technique?

In 1938 there were no water cooled trays. We knew hydrocolloid impressions were good for tooth supported RPDs, and wanted to adapt it for distal extension RPDs. Finally, in 1940 we had water cooled trays. Then in the distal extension cases we could take a water cooled tray, build up the distal extension in compound; trim it up nicely leaving space for the hydrocolloid; heat the compound slightly with a water syringe and test it for softness with a T burnisher; and then make the hydrocolloid impression of the entire arch. We would have just a thin layer of hydrocolloid over the compound and if we saw compound, we would do it over.

Do you think the students of today could make such a technique sensitive impression?

I don't know, but they did it in my day!

The problems associated with the distal extension RPD were attacked in many ways. Elaborate on this.

I wasn't a Founder of the New York Academy of Prosthodontics, but I was a Charter Fellow. As such, I had to give a paper and my paper was on rebasing removable partial dentures. I gave another paper on rebasing [RPDs] before the Academy of Denture Prosthetics in 1956 [later published]. Based on Applegate's thinking I taught students rebasing techniques for distal extension removable partial dentures.

What did you think about any newer materials as they were introduced?

When rubber base came in, that was the end of it. Rubber was no good. Rubber was easy, but was a regression. Understand, hydrocolloid and compound are thermoplastic; they soften and harden with temperature changes. The other materials chemically set. That's why alginate doesn't work with compound.

Why did you stick with the precision attachment?

I didn't! With precision attachments the conditions to control the cutting of rests is very difficult and very costly; they have to be perfectly parallel; there is no tolerance; and there is a high degree of skill required. The double dove tail is a substitute for a fixed connection. It works well in tooth supported RPDs, but they are very costly. In distal extension cases you have to involve stress breaking and that becomes a can of worms. Semiprecision attachments became more favored because they act as a cushion in situations other than tooth supported partials. Now partial dentures are becoming obsolete. Why? Because of implants.

That takes us to the present. What are you seeing now?

I reviewed the articles in the 1999 *Journal of Prosthetic Dentistry* and found only four articles relating to removable partial dentures and one of those really was a dental technology article. Dr. Blatterfein described his activities as a Section Editor of *The Journal of Prosthetic Dentistry* and related interests in various techniques and treatments to the number of articles submitted to the journal. He went on to say: There is a new era now. Everything is implants. Interest in removable partial dentures is down considerably and it is a secondary service. I observe that the use of RPDs is greater in poor areas, areas where laboratory skills are not as great and in people who want to spend less on dentistry. Along with that the era of advertising in dentistry [looking at the New York City telephone book yellow pages] and easy credit with credit cards puts implant dentistry on a par with face lifts and weight reductions. People want to eliminate age; they want replacements for natural teeth; and they are cosmetically oriented.

How do you see your removable partial technique in comparison to other techniques as advocated by say Kratochvil, Krol, Holmes or others?

Kratochvil had too much contact distal with the plate [guiding plane]; Krol was better. Their techniques applies more to distal extension situations, not tooth supported. These techniques put too much stress on the tissues. I do not like exposed minor connectors - the only good one is a dead one. There are no lateral stabilizers. There should be consideration given to what is in the opposing jaw.

What is your feeling about Board certification? I am a charter member of the Board and let me show you my certificates from the start of the Board. The training is about the right length, but the Board should have a surgery component. The prosthodontist should be able to do the surgery because they know what the restoration will amount to. The Board has maxillofacial [component]; why not surgery? The Board has prestige. Money can't buy prestige. The idea that patients don't know the difference if the Boards aren't taken is rationalization and sour grapes.

Historically, we've talked about a lot of big names in prosthodontics. Do you see big names today and in the future in prosthodontics?

The big names today are educators who are also practicing prosthodontics. The practice component is necessary because you can deal with troublesome patients, laboratories, dental assistants, and patients who will sue you. You don't have that experience in education. You have to practice, otherwise when you talk, you talk sterile.

Do you have any worries about prosthodontics today?

There will be a remodeling of prosthodontics. Poor people

and the medically disadvantaged will have removable work. If your patients are predominantly in the suburbs or in rural areas you will have to teach complete dentures. If you are in the city you will have to teach implants. NYU advertises free implant consultations. Further, our school [NYU] should simulate Gordon Christensen's operation. We should do all materials testing, and then the manufacturers will come to us. There would be no end to the different materials needing testing. Of course this would generate or be a source of money. **Would this be academic?** It's an integral part of it. The administrators would accept it because the money would roll in. You know the ADA stamp of approval; just suppose at NYU we had a stamp of approval?

Finally do you see any problem in finding teachers in prosthodontics today?

In the old days practices were not so lucrative, but now days practices are lucrative and they [the trained prosthodontists] don't want to teach. You get some pure academicians. The teachers should be practitioners, and they should be paid, certainly. You have to put your money where your mouth is. At one time NYU had a program for training teachers. It didn't work out. Why? There was no future for them. I do believe that intermural practices in schools are the answer.

What about other changes in teaching as we leave this century? Computers take away individuality. Computers are a blessing and curse. The kids today can't write; they can't think. Everything is automatic; you don't have to think anymore.

What are your last thoughts?

I've seen three generations, you know. My parents were solid as rocks. My parents came here and they wanted to be Americans. They learned the language and spoke it well. They worked hard; there was no welfare. I was fortunate. I've been blessed.

Dr. Blatterfein, thank you very much. □

The Last Chapters

Oral histories can be important. Relating to the past gives us better vision for the future. When the last chapters are written on those pioneer dentists of the 20th century who founded our specialty, our conclusions will have to include the following:

✓ They were dedicated to bettering their profession, their disciplines, and their evolving specialties. The word dedicated has to be stressed.

✓ They were very controlled. Their sense of purpose was clear and their work at it was intense, not diluted by multiple interests or self interest.

✓ They were able to see the big picture, tying organizations, education, teaching, patient interests, and the financial needs of the profession together.

✓ They were able to see and plan and predict far into the future. By doing so, they were able to thoroughly and systematically plan solutions to existing problems that would last far into the future.

✓ They were profoundly professional. They wanted their projected personalities to exemplify a role model that would be noted and copied by other professions, community leaders, professional coworkers, students and patients. The image projected by action and accomplishment was important to them.

✓ They were not as interested in following trends as they were in setting them. They used dental answers to satisfy dental needs. They avoided devoting time to commercialism, advertising, marketing techniques, and sales seminars. Their trend setting was directed to journals, departments, education, dental technique, mentoring, and personal interaction.

✓ Success was not measured by size of practice, bank account, or number of material goods. Success was measured by respect and worth of individual contribution.

✓ Their technique was profoundly influenced by commercial developments. The worst became better because new materials and devices came on the market and caused revolutionary changes in method of restoration.

✓ They worked at thoroughly understanding the way things worked. This included biologic, physiologic and pathologic complexities, materials, instruments and equipment. Nothing was taken for granted.

As Dr. Blatterfein says, "We've been blessed!" □