one of the most readable, award-winning dental magazines in America, comes to you, doctor, as a professional courtesy of your Ticonium Laboratory.
Dentistry in the Next Decade

(Continued from Page 14)

There are many ways to solve the sleep problem. The simplest are the "warm bath-drink-reading a bit" technique that usually takes care of the mild insomnia, but for the really suffering of the condition that causes depression and anxiety disorders. Sophisticated restorative procedures will be in demand in an aging population.

The generalist of tomorrow will render some of the treatment now referred to specialists. There will be some restructuring and redefining of the specialties, especially in the area of dental implants.

In most instances, the dentist-patient relationship will become less personal. An elite class of practice may arise because of the demand of a minority of patients and practitioners who wish, and can afford, to retain the former type of relationship. (Di Salvo, Nicholas A. Columbia University, New York, New York. Orthodontics 1985-90: A panel discussion.)

Dentistry in the Next Decade

"The generalist of tomorrow will render some of the treatment now referred to specialists.

Nursery Rhymes—Updated

There once was a woman who lived in a shoe. Who had so many children she didn't know what to do — And she would have her problem still, if her gynecologist hadn't prescribed the pill.

Handy sphynd, Jack-a-Dandy Loves plum cake and sugar candy. Eats the sweet foods night and day — Now he's full of tooth decay.

 Sentry's...
Clayton's problems began, as he puts it, "years ago—back in the 50's—when a front tooth weakened and broke off." He had a bridge put in, but after 12 years it weakened and began cutting into his lip. The inside of the lip was damaged to such an extent that he had to have an operation in which the lip was sewed up.

"It hurt so much when I tried to blow that I felt I couldn't play," Clayton recalled.

In 1969, it was too much and Clayton gave up the effort to play, surrendering a career that had become a hallmark of American jazz since early in the 1930's.

He gave up playing and worked at different jobs, among them selling newspaper advertising space for the musicians' union. But eventually he put most of his time into writing arrangements, something he had been doing since he first joined the famed Count Basie band and contributed "Taps Miller," "Red Bank Boogie," and "Avenue C" to the Basie book.

In the fall of 1975, he went to the annual jazz party given by Dick Gibson in Boulder, Colorado, where he met Trummy Young, the trombonist who starred for so many years with the Jimmy Lunceford band and contributed a hallmark of American jazz since early in the 1930's.

Young, who had a similar problem, told him about the two Boston dentists, Drs. Minichelli and Becker—both jazz fans—who had devised and implanted a star-shaped protective shield, he would test it with a few notes sounded on his horn. The usually sedate dental office of the two Boston dentists would be filled with the sweet sound of jazz, as necessary a part of the treatment program as any mold or form.

Clayton came to the offices of Drs. Becker and Minichelli, trumpet in hand. As they fitted a specially fashioned protective shield, he would test it with a few notes. Substitution of a cast metal palate was the answer.

"Back brought his trumpet, played for us in the office and showed us and described his problems," Dr. Becker recalls.

According to Dr. Becker, the method for treating wind musicians who have a special problem is: "Listen to them. They know more about the anatomy and physiology of the mouth and the teeth as they apply to their profession than we do." "For example, a trumpeter who continued to play despite a full upper denture had no trouble reaching all the low notes, but when he blew high, he couldn't get it "thin enough to screen." Examination showed a denture with an acrylic palate that had been thinned through tongue action, but was still too thick. Substitution of a cast metal palate was the answer.

It was necessary, Dr. Becker explained, to reshape the teeth for the size and thickness of the contour so as to assure a sufficient and sustained air flow—the breathing that creates the music.

The denture, Dr. Becker explained, must preserve the air space and at the same time must be free from anchors so as not to increase the pressure of the tongue on the lips, a pressure that can become intensely painful. It was this pain that forced Clayton to give up playing until his denture was redesigned by the dentists.

The Boston dentists prepare two different dentures for their musician-patients. One for eating and for playing, and a more comfortable, less dense one for playing. A carefully designed shield would be filled with the sweet sound of jazz..."
Dentistry in the Next Decade

The author foresees a decline in the extent of postgraduate dental education in all of the specialties in the next decade. An increasing emphasis on orthodontics in the predoctoral curriculum can be anticipated, and advances in technology and in diagnostic techniques will facilitate the teaching of clinical orthodontic procedures at the predoctoral level.

Multiple-specialty designation will probably become a reality, and may flourish best in rural areas which cannot support single-specialty practices.

Requirements for continuing education for relicensure and for specialty board recertification will spread.

Routine restorative procedures in the young and more deformities, control of periodontal disease, and infection will employ expanded-function auxiliaries.

Specialize will decrease. Dental schools will be forced to reduce the number of openings in specialty programs.

II The Overlay That Corrects Notes

by Twanette Morehead

A modest man, Dr. Thomas D. Van Osdel of Wau-
saw, Indiana, is a bit chagrined by the attention he is receiving after another of his creations.

"The overlay isn’t really all that great a piece of dentistry," he says.

But for now, Dr. Van Osdel’s name is becoming known to musicians not only in Indiana, but elsewhere for his work on a plastic overlay that helps musicians attain higher notes.

"Hitting a high note depends on fast vibration of the lip," he explains. "If the teeth are too flat, the pressure of the trumpet mouthpiece against the teeth causes diastema and treatment must be forced. Deformities, control of periodontal disease, and infection also cause loss of teeth."

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a position with Grace College in Winona Lake, Indiana, he worked with Dr. Eugene Dellinger, an orthodontist in Fort Wayne, Indiana, to adjust the teeth of his students through braces, and with his own dentist, Dr. Van Osdol, who has done the crowning of teeth of Franks' students for about three years.

Dr. Van Osdol, an Indiana University graduate, who "just practices general dentistry but seeks perfection with accepted techniques," says that at first he hated to spoil good teeth. "In some cases the teeth were not too nice so they needed crowning anyway, but when the teeth are nice, I hate to do it. But one student helped me see that if the trumpet is the way he makes his living, just like a movie star, it's worth it to go through all the trouble of crowning and changing the teeth.

About a year ago, however, a development occurred that made both Dr. Van Osdol and Jerry Franks happier. Franks, still in contact with Dr. Gordon in Pennsylvania, learned that Dr. Gordon was using a hard-shell overlay to correct overbites. Franks asked Dr. Gordon to send him one, and upon seeing the piece of plastic, thought: "Why not turn it upside down, put a wedge in it, and use it on the top teeth." So Franks went to Dr. Van Osdol.

"I didn't know musically what he meant," the dentist said, "but it was no problem. Jerry drew pictures and diagrams and told me how he wanted the wedges shaped, according to air flow and so on, and then we took an impression of the mouth. After the model is made, I dub dental stone into the impression, trim the model, and adapt soft wax to the model. I contour, curve, and shape it the way we want it and send it to the laboratory." At the laboratory, work proceeds as for other dentures, with application of plaster, melting away of wax, and packing denture acrylic into the void. After breaking away of the plaster, the dental technician cuts, sands, and shines the overlay and sends it to the dentist.

"When the acrylic overlay comes back," says Dr. Van Osdol, "it still needs some fitting and adjustment in the mouth of the patient." But after that, the musician has a removable wedge that provides the "bumpershaped" effect that Franks seeks. "It's like a bumper on a car, it protects your grill," says Franks.

In the telling, Dr. Van Osdol made the process sound simple, but upon watching him work it became apparent that the shaping of the wax, after the impression, was a task requiring much patience. With the use of a hot wax spatula, he shapes the wax little by little onto the mold. The incial edge must be as short or thin as we can make it without fracturing." he points out. "The lingual portion must be rounded out smooth, no sharp edges, so that we get a nice air flow. And the labial surface comes out to a wedge in the

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Dr. Van Osdol and Jerry Franks discuss the model and overlay for one of Franks' students.

Kris Douth having an overlay fitted over his teeth.

Tom Richardson having an impression made of his lower teeth.

Nineteenth Century

No. 1

and described as "more appropriate to fill the cavities of the teeth and to replace lost fillings, gold and silver which are usually used for this purpose." Meanwhile, in 1833, two French quacks, the Crawcour Brothers, had come to New York and begun to practice dentistry with the aid of unscrupulous advertising and displays. They made use of a new filling material containing mercury; pompously imitating their compatriots, the Mallans, they dubbed it "Royal Mineral Succedaneum." Their unprofessional conduct aroused the surprise and indignation of the better dentists. The marvelous virtues the Crawcours attributed to the new compound, their exclamatory property, lured thousands, among them the best patients of New York's prominent dentists. The quacks quickly made a fortune. "Our grandfathers and grandmothers," says one report on the Crawcours episode, "naturally preferred a few moments reclining in a luxurious easy-chair and the taste and pleasant operation necessary to the introduction of a gold filling. Liberated attendants heeded their slightest wants; the principals themselves were polite even to adulation; and everything was artfully calculated to make the operations matters of pleasure rather than of pain and endurance." The noisy competition offered by the Crawcours and their new filling material did more and more harm to the practice of honest dentists; the conduct of these empirics and, more important, the dangerous nature of their filling material, were vehemently denounced. New York dentists reacted insistently against mercantile salivation and its injurious effects. In addition to the peril of the amalgam, the accusations of American dentists were supported by the Crawcours' observable bad results: their filling material, to save time, was hastily prepared, so that it retained a large excess of mercury, which was then squeezed out into the mouth during mastication. The cavities were never excavated or even dried, and after a short time the filling came out. In many cases also the "Royal Mineral Succedaneum" was stuffed between the teeth where there was no cavity at all. This sort of malpractice and the attacks of their professional opponents led to the early downfall of the Crawcour Brothers.

First College, Magazine

The Baltimore College of Dental Surgery, the world's first dental college (1839), opened a new era in dental education. One of its founders, Chapin A. Harris, in the first volume of the first dental magazine, The American Journal of Dental Science, also published in 1839, gives a highly dramatic description of the Crawcours' activities and their "amalgam of mercury and silver." More recently an amalgam has been highly extolled by a few practitioners, both in this and other countries; but by most of those who have had teeth filled with it, bitterly denounced. It is certainly one of the most objectionable articles for filling teeth that can be employed, as it is from the wonderful virtues ascribed to this precious compound by those who used it, thousands were induced to try its efficacy. The employment
With end of the eighteenth century came not only great technical progress in dentistry through the invention of the porcelain dentures, but also important scientific development. The effect of the latter did not manifest itself until the first quarter of the nineteenth century. It was not a dentist but a surgeon-anatomist, John Hunter (1728-1793), whose The Natural History of the Human Teeth (published in London in 1771) and A Practical Treatise on the Diseases of the Teeth (1778), gave the first real impulse to dental and oral anatomy, comparative anatomy, physiology, histology, and pathology. Hunter experimented with the transplantation of teeth, a method known as early as the sixteenth century. It soon became a fad. A paltry healthy, handsome teeth be wrenched out and set in some rich patient's mouth in place of the latter's own. Naturally an effort was made to match the other teeth of the acquiring patient as closely as possible. Hunter also did much transplanting of parts of one animal to another. His climactic achievement was the transplantation of a human tooth to a cock's comb, where it held firm and became attached by blood vessels.

The first half of the nineteenth century showed great improvement in the materials used for filling teeth. Wax or some other kneadable substance had been used since early times; later on, the soft, ductile metals tin and lead were also used. Gold was first employed for filling front teeth in Central and South America, not for protection but as a kind of ornamentation like the covering of teeth three or in primitive cultures of our own time. We read in the Practica of the Italian Renaissance physician Giovanni d'Arcole (Arculanus) how curious teeth are filled cum folis auri, with gold foil. But since this method was rather difficult and time-consuming and its perfect application was nearly impossible until the introduction of the rubber dam to keep the cavity dry, it is understandable that dentists wanted a material easier and faster to manipulate and also less expensive and less uncomfortable for the patient. They now directed their efforts toward plastic fillings, and in 1818 Louis-Nicolas Regnart came forward with the first fusible amalgam, the so-called Dracet Alloy. Shortly after this the Paris dentist Taveau introduced a combination of silver coin filings and mercury, he called this new plastic filling material amalgam d'argent, silver paste. When the free mercury had been pressed out with plexus, the remainder of the paste was stuffed into the cavity, where it quickly hardened. In 1840 the Mallan family, also Parisian dentists, obtained letter patent for precisely the same combination, which they called succeedaeus mineral

Jerry Franks, Director of Instrumental Music at Grace College since 1966, has worked as a professional musician doing film, television, and recording studio work with such greats as Harvey Phillips, Buddy Morrow, Gene Krupa, and Doc Severinson. The latter has spoken of Franks on the Tonight Show. When Johnny Carson asked Severinson one night if he knew anyone who played the trumpet as well as he (Severinson) did, Severinson answered: "Yes. There's this tubby little guy in the hick town of Winona Lake, Indiana."

It was probably because of this incident that Franks was offered the conductorship of the Tonight Show orchestra when a contract dispute arose between Severinson and NBC in 1977, but Franks had been offered other jobs before the Tonight Show. In 1966, on the same day that Les Brown offered Franks the lead trumpet in the Dean Martin Show band and with Bob Hope in Vietnam, Franks was also offered the job of featured soloist and associate conductor of the United States Marine Band. He has also been offered posts in many universities, as well as leadership of the Disney World Band.

He has performed at Dodger Stadium, the only trumpet to play there four times, and has an open invitation to play there whenever he's in the area. He has been featured soloist three times at the Midwest National Band Clinic. He considers this his highest honor because "it's musicians selecting musicians."

In spite of acclaim and enticing offers of positions elsewhere, Franks remains at Grace College because of "deep faith and commitment to God" that has helped him build a teaching program of 90 students a week, gives him conductorship of the Dimensions in Brass, which travels over the United States giving 150 concerts a year—and enabling him to cope with his blindness.

When he had forewarnings of the diabetic blindness to come, he memorized 55 books of music. He believes that his memory and hearing have been "stepped up to take over" for his lost vision. He can play duets with his students, and rehearse, conduct, listen, and learn all at once before the Dimensions in Brass group. The Dimensions orchestra gives 150 concerts annually throughout the country, and is recognized by professional music publications as one of the finest in the United States.

Like all educators, he enjoys the accomplishments of his students. Many of them appear with such organizations as Boston Pops, the Chicago, Cincinnati, Fort Wayne and South Bend symphonies, and major military bands. He finds time to demonstrate instruments and give concerts at music clinics under the auspices of the Cona Instrument Co., an assignment that began when he was still working as a studio musician.
The Overlay Continued from Page 4

center for support. The wedge must be as thin as possible. The overlay is made to cover the six front teeth, upper or lower, down to soft tissue.

The need for a wedge on the upper teeth seems obvious after explanation of a brass player's needs, but often a wedge on the lower teeth is needed, too. Kris Deub, a member of the Grace College Dimensions in Brass group that travels throughout the United States, has overlays for both upper and lower teeth. Because his lower teeth extend inward there is no straight, rigid plane for the trumpet mouthpiece to rest on, thus the overlay to bring the lower teeth to a level with the upper.

Tom Richeson, recently of the Tommy Dorsey band and the University of Tennessee, and now with the Diana Ross show was, recently fitted with a lower overlay, Richeson, seeking "overall competence in his profession," was helped by a teacher, to Doc Severinson, who in turn referred him to Franks and Dr. Van Osdol. "I tried four or five directions," said Richeson. "All directions pointed to Jerry Franks."

Though Dr. Van Osdol still does crowning in some cases, both he and Franks feel that the overlay is the "best answer yet" to helping brass players with range and endurance. "It's ideal," says the dentist, "because it's removable, less costly, and we're not cutting teeth down."

And the word is getting out about the acrylic overlay.

Society's View of the Dentist!

One of the major problems confronting the dental profession in many modern societies is that large segments of their populations regard dental health as nonessential. This attitude may stem from the separation between the medical and dental professions; that most specialty health sciences are practically and theoretically affiliated as branches of the field of medicine, whereas dental science is isolated.

Data available for the United States and Canada indicate that dentists tend to be accorded fairly high prestige. O'Shea and Cohen (1967) in a review of findings dealing with the prestige of dentistry in the United States, state that "there appears to be clear consensus among professionals and the public that dentistry stands high, though never highest, in ranking the order of occupational prestige."

Although dentists are generally attributed high prestige by the public at large, there is not a consistent explanation as to why this occurs. One way in which the dental profession has responded to the various studies carried out by social scientists has been to include a social science component in the dental curriculum. This is intended to sensitize the student to the needs of the community in which he will function. But if the dental profession seriously wishes to improve its image and its role in the dental health as a nonessential. This attitude may stem from the separation between the medical and dental professions; that most specialty health sciences are practically and theoretically affiliated as branches of the field of medicine, whereas dental science is isolated.

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There is enough evidence to suggest that the vision of dental education alone is not enough to motivate people to use dental services to influence involved in preventive health programs. One of the most important factors in predicting whether a person is likely to use dental services is that person's past experience in the dental health care system. Given the fact that a large percentage of the population in most modern societies does not appear to use dental services on a regular basis, it is evident that unless there are major changes in the way dental care is delivered, as well as in the educational programs, little if any change is likely to take place.


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TIC and my local dentist—who just made me a glorious partial—were about the only links left with the profession for which I trained in Brussels, Edinburgh, and Pittsburgh (where in pre-historic times I craved less for perfection than for reasonable skill. I never practiced for more than three days a week, the profession for which I trained in Brussels, assistant, whose beautiful smile was marred by the symbol of such importance, made entire tribes so I needed the rest to practice other things in which I craved less for perfection than for reasonable skill. So I practiced Bach on my piano, painting on my easel, drawing on my sketch pad, and meanwhile wrote a few books.

I also practiced in Central Africa during the years I set up the dental emergency clinic at Albert Schweitzer's hospital in Lambarene, where I became more or less adept at tackling the most spectacular impactions, cysts, and the other extravaganzas of jungle dentistry. My equatorial career was perhaps cut short by an imprudent dental intervention: that of making a little partial for Joseph, my African assistant, whose beautiful smile was marred by the absence of four anterior. This partial, unique in a territory of immeasurable vastness, proved to be a status symbol of such importance, made entire tribes so envious, that it made my life very burdensome. For the locals either threatened me with violent demise unless I supplied them, too, with this portable equivalent of a Rolls Royce, or tried to bribe me by offering me a nubile daughter in exchange for a decorative restoration in every career he has chosen to pursue—dentist, artist, author, lecturer. He holds degrees in dentistry, medicine, and fine arts.

I have lived reasonably happy ever after. At the request of the editor of TIC, I have provided a few drawings for this issue. They are from my 21st opus The Awakened Eye, which is the just-published companion volume to The Zen of Seeing—Seeing/Drawing As Meditations. The Zen of Seeing has, for this kind of book, been a remarkable bestseller. Neither I nor the publisher had dared to hope that some 150,000 copies would find their way to people for whom it had such meaning. Innumerable letters I have told me how it restored joie de vivre and the lost art of seeing, so typical for our era of passive entertainment and active frustration. For the more we "look," snap pictures as a substitute for seeing the world around us, the more impoverished we become: we know the labels on all the bottles, but never taste the wine of life. In these books I reveal that happiness, that greatest luxury still available and free in this noisy century: to stop the car somewhere (assuming you have gas to get it going,) and plunk down in the grass. Take a pencil and try to draw—however well or badly; that is secondary!—leaves, flowers, grasses around you. At last, suddenly, and for the first time, you are in contact with Creation! Both books are companion volume to The Zen of Seeing—Seeing/Drawing As Meditations. The Zen of Seeing came out, is the subject of The Awakened Eye—actually a "written workshop for all..."
Dr. Albert Schweitzer at work, surrounded by his pets, drawn in Lambaréné, when Dr. Franck was on the staff of the legendary jungle hospital. The original drawing is in the collection of the Museum of Modern Art.

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A landscape near Warwick, N.Y.

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