The first anesthesia — "and the Lord God caused a deep sleep to fall upon Adam."

It is said that not until 1844 was there a positive cure for pain. On the afternoon of December 11 of that year, Dr. Horace Wells, a pioneer dentist of Hartford, Conn., became the first patient to have a tooth extracted under anesthesia—Nitrous Oxide.

During the operation, he remained entirely tranquil and showed no evidence of pain.

Dentistry, as a profession, has done much to make the world a better place in which to live. In the discovery of Dr. Wells, dentistry placed all mankind in its debt.
city, State, and national boxing commissions, all autonomous. The Association is an advisory body to city, State, and national boxing commissions, that recommends rules, regulations, and procedures to the commission, to include referees and ring-side physicians greater opportunities to decide whether to stop or continue a bout; use of safety mats, guard gloves, and Old Guard and Navy mouthpieces; enforcement of rest periods after knockouts or violent knockdowns; retirement of boxers on medical recommendations; use of electroencephalography; restricted use of medication on facial lacerations, forbidding Monsell's, ferrule or iron derivatives; elimination of the use of am­monia (only cold water may be used in the corners); strict physical examination (complete and thorough); and NBA national suspension (so that a boxer suspended in one state cannot box in another). Doctor Ward Wylie of Mullens, West Virginia, is the national medical director of the Association. He appoints all members of the medical advisory unit. Dentists on the board, in addition to Doctor Oddo, are Doctor B. W. West of West Virginia, who heads the dental group, and Doctor J. V. Nuriener, United States Navy. These boxing posts are non-salaried ones. The advisers to the community, as service donated in the public interest.

Doctor Oddo is only thirty years old. Born in Providence, he graduated from Providence College with a B.S. degree, and obtained his Doctor of Dental Surgery degree at Georgetown University, following his service in World War II, he returned to Providence, where he now practices at 577 Elmwood Avenue. He is a member of the staffs of St. Joseph's Hospital and Rhode Island Hospital in that city.

To Doctor Vincent J. Oddo, Jr., every day begins a New Year—a new year of the growing possibilities of his unique contribution to preventive dentistry which saves more and more young athletes from injuries, disfigurement, and even death.

THE PROBERS
For investigation a committee pursues,
The probe, no doubt, is what they use;
But a dentist's discoveries—another brand—
Are made with trusty explorer in hand!

Barbara Becker
Page Sixteen

Precision Attachments
(Continued from Page Thirteen)

On the other hand, the clasp often causes me­chanical alterations leading to tooth decay, unless it rests on metal, like a gold crown. Moreover, it is frequently bent out of correct position by the pa­tient, upon insertion or removal of the bridge, subj­ecting the clasp to greater breakage.

In unilateral cases, the attachments should be parallel vertically as well as buccolingually. This allows slight lateral as well as vertical play, which is stimulating to the surrounding tissue.

A "Remarkable Book"

Finally, the story of the precision attachment cannot be complete without mentioning that remarkable book, Movable-Renovable Bridgework, by Doctors J. O. McCall and J. M. Hugel, which is a glowing tribute to Doctor Clayes, the man who helped his colleagues understand fully the biologic and mechanical factors necessary for successful restorative dentistry.

Next Month: Part Nine.

BIBLIOGRAPHY
 Regardless of the stated causes for divorce, many an otherwise sound marriage has been dissolved because a dentist has permitted his practice to overshadow his family life. This is less a result of long office hours and night appointments than from the peripheral obligations a dentist may feel he has. These may take the form of numerous self-imposed social duties or civic obligations to the neglect of his own personal obligations to his family. 

Romantic love aside, a wife has at least a minimum claim on her husband for companionship. If she fails to get this, there may be little inducement to share the ups and downs of a dental practice. A large cash set-aside for the practice and the fascination of carrying out professional earnings due to such devotion to a practice can defeat its original purpose.

Again, this is not to moralize. But it is ironic that many a dentist who has neglected his family, in the mistaken belief that by so doing he could better provide for his wife and children, has lost both his high earnings—and his family. A large cash settlement on his wife can cripple a dentist, and blight his economic future. A heavy award for monthly alimony or child support may become an ineradicable burden in years of poor practice or retirement.

Don't Neglect Your Family

The neglect of the young children of a marriage may seem an extreme interest of a demand-}

A vacation should be a substitute. A vacation should be one in which a dentist gets completely away from his office. The expense should not be considered personal, even though it cannot be charged as a professional expense. It is an investment.

So, if a dentist wishes to completely protect himself and his practice it might be well to remember occasionally that many non-professional hazards and personal errors and attitudes of sports represent professional as well as personal liabilities. These can be extremely costly even to the point of jeopardizing a practice.

He reminds us that when a permanent tooth of little more than half the root is calcified and the opening at the root apex where blood vessels and nerves enter the pulp is wide open. Three to four years elapse before root calcification is completed and the apical opening becomes reduced to a fine canal. Later, the completed root is more tightly enclosed in a stronger bony socket lined by a thin membrane.

Don't Abuse Your Health

Personal habits are not exclusively personal—not if a practice is involved. Bad habits can often have a serious impact on a dental practice, even though the habits are tightly restricted to leisure hours. In this category is excessive drinking. This is not primarily because of the direct cost, expensive though it may be. By far the greatest cost is in the form of impaired mental faculties the next day during office hours. Few practices can afford the luxury of office holidays. A good many social drinkers, conscious of the danger of drifting into compulsive imbibing, discipline themselves to indulge only on week-ends, and then in strict moderation.

The neglect of one's health can make a dental practice sick, as it can its practitioners. Putting in excessive office hours, failing to get any diversion or change of pace, and generally, being "all business" can defeat its purpose. Where there may be occasional circumstances which oblige a dentist to drive himself unmercifully, these should be few and of short duration.

Too often, dentists who drive themselves on and on at the expense of their health do so in the mistaken belief that is the only certain road to higher income and security. Yet, any additional professional earnings due to such devotion to a practice can be quickly dissipated by a few weeks' illness.

A vacation should be a "must" for every dentist, and a trip to a dental society convention is not an adequate substitute. A vacation should be one in which a dentist gets completely away from his office. The expense should not be considered personal, even though it cannot be charged as a professional expense. It is an investment.

Thus, it is undoubtedly due to chance, but often it has seemed that it is the least skillful and least successful teams which have the most injuries. Manpower and effectiveness of coaching, quality of equipment, attention to detail, and degree of emphasis on winning—all are factors which contribute to the number of injuries. Each year there should be a review of results and an effort to correct the probable causes of injuries.

The Lessons of Research

Doctor Oddo sums up his years of research as follows:

"Any head injury, even without skull fracture or knockout, may be accompanied by pinpoint hemorrhage or other brain injury. 

"Such injuries may be suffered equally by experienced or inexperienced athletes in their first exposure to accidents or after many years of experience.

"There are many portions of the brain in which destruction of a small amount of nerve tissue does not cause paralysis or other noticeable changes in behavior. This is especially true in certain areas of the brain where the highest human faculties such as distinct coordination of memory, speech, self-control, and the powers of reasoning are lodged. Subsequent injuries add to earlier ones, since each injury is permanent. The exact location and extent of each injury and the total of all injuries will determine the extent of los of mental powers or bodily control.

"It is the solemn responsibility of the supervisor of athletics to provide complete medical and dental examinations and to provide the best of equipment and all protective devices at his disposal."

The National Boxing Association

Naturally enough, Doctor Oddo's interest in sports, especially that of boxing, has led to his appointment as dental adviser on the medical advisory and all protective devices of the National Boxing Association. The Association is an organization of ninety-four

Special Tonic

To add to the daily toil and strife it is an investment.
FOR LIVING

Effects of Brain Damage

Listing the sequelae of the generalized effects of brain injury as anesthesia, permanent defect of mental function, epilepsy, and headache and giddiness, he says:

"As a permanent sequel of the injury there is loss of memory, which is almost always complete for the events immediately preceding the accident and for the accident itself and for a variable period after the accident. As a general rule, the longer the period of anesthesia, the more extensive the brain injury." Discussing permanent defects of mental function, he says: "Total disability from permanent mental incapacity is a rare consequence of generalized brain injury. In cases of moderate or severe injury these symptoms may be very slow to recover, so that it may be a year or more after the accident before the patient has regained normal mental state." He observes that the late development of epilepsy appears to be on the whole more common in patients who have shown more severe, generalized effects of brain injury than in other patients. Speaking of headaches and giddiness, he comments: "In general, these severity and duration are greatest in the cases of severe injury, and the liability to headache is often permanent."

Lesser Morbid Sequelae

Doctor Oddo warns that the lesser morbid sequelae of head injuries are also of extreme importance. Pointing out that the most common cause of injury is a traumatic blow to the face which brings the upper incisor teeth into sudden contact with something hard, he says: "That is why, in the overwhelming majority of cases, these accidents befall people with prominent upper teeth. But a blow from a ball, a hockey stick, a tennis racket, or a kick or butt in the mouth, will serve equally, and it is accidents such as these which account for injury to the lower incisors. These accidents are most common between the ages of seven to eighteen, when the teeth are not so strong or so firmly attached as they become later."

Do you get discouraged when you see rampant decay in the mouths of your child patients? Does it make you feel like punishing the people responsible for letting these kids have cakes, Cokes, and candy at school? Here's how one group of dentists found a way to handle these conditions and they are winning hands up.

In June 1951 a committee of dentists belonging to the Third District of the Southern California State Dental Association got together to discuss the problem of dental decay among Long Beach school children. In the past their efforts to control tooth decay in these schools had not been too successful.

In spite of dental nutrition lectures by local dentists before the many P.T.A.'s, and a dental inspection program with priests in the form of Brownie Buttons and free entertainment for children with healthy mouths, the rate of tooth decay in the children in 1951 was slowly getting worse rather than better. The trouble could be traced directly to the sale of tooth-decaying foods in the school cafeterias and the sale of milk and candy and soft drinks on the school grounds and in the classrooms.

The Society had tried to tell the public school authorities that these unsatisfactory dietary conditions were contributing to the poor dental health of the pupils. However, though the school heads tried their best to cooperate, nothing much was done to correct the eating habits of the pupils and dental decay went merrily on its way, destroying the children's teeth.

At the same time the committee was having a rough time with the city council on the fluoridation of the city water system; and even if fluoridation was adopted, it was concluded, the enormous amount of sweets consumed by the children while at school would still produce too much dental decay.

However, it takes more than a little trouble to hold good dentists down.

"If we can't tell these public school officials, we'll have to show them," Doctor Virgil Ridgeway, one of the committee members, told his colleagues.

The Winning Answer

It was then that Doctor Earl Donaldson, another committee member, came up with the winning answer. He said: "Outside the public school system are fourteen private parochial schools, seven Catholic and seven Protestant, with an enrollment of over five thousand pupils. For several years the parochial schools have been asking the Society to put in a program of dental inspection in their private schools similar to the Brownie Button program in the public schools.

"Now we can promise to furnish free dental inspection to these parochial schools only if they accept a program of dental health suitable to the Society."

"I see your point," spoke Doctor Alonso B. Saunders, a member of the Third District and a former president of the Southern California State Dental Association. "If a program like the one you speak of is successful, it will act as a wedge to getting such benefits into the public schools."

"And," suggested Dr. Francis Jankovsky, a hard-working member of the committee, "why don't we ask for the limit? If they don't accept all the benefits we ask for, we can always take less."

So the committee decided to present to the parochial schools a strict dental health program in exchange for free dental inspection of the students by the Society's dentists.

In fact, so rigid were the Society's demands that it was a surprise when Doctor Donaldson announced at the next meeting of the committee that the program had been accepted in full. He explained:

"We are allowed to furnish a dental health speaker for one meeting a year for each of the schools.
Dentists illustrate to mothers and cafeteria personnel a dentally nutritious school lunch.

"Dentists conducting the survey, with a member of a mothers' club reviewing the results.

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school’s mothers’ clubs. The film, ‘It’s Your Health,’ or other dental films are to be shown at one of their other monthly meetings.

"In return, the mothers’ clubs will be responsible for collecting funds and performing social service for the Dental Health Center, which, as you know, provides means for the care of low-income children.

"In addition the mothers’ clubs will provide dental health cards for the recording of each pupil’s dental record and the personnel for the care and keeping of the cards.

"The teachers will receive talks on dental health and also a showing of ‘It’s Your Health.’ The pupils will see this great dental picture and other such dental movies on Dental Health Day. On this same program Milton Paddock will give his entertaining puppet show, which illustrates the effects of poor diet on the teeth.

Doctor Donaldson continued: "Periodically, classroom talks will be given on dental health and dental card will be sent home to parents showing what dentistry is needed and instructing the parents to take their children to the dentist for X-rays and oral examination. Bownie Button awards, if desired, will be given the pupils if the schools consent to pay for the cost of such awards.

Doctor Grosser points out that there are certain situations in which the distribution of teeth is such that clasps cannot be used efficiently. Several examples are:

1. Those in which only six anterior teeth are present.

2. Unilateral cases. These present difficulty in attaining perfect balance.

3. Those with only two canines present. Here, the internal precision attachment is the only type of retainer that will function successfully. A clasp denture with few and improperly distributed teeth will only delay full denture construction.

Doctor Grosser contends that the precision attachment will improve the esthetics, eliminate trauma, and prevent caries, displacement, tipping or rotation of the abutment teeth and settling of the partial denture.

The abutments, being parallel, help to maintain a splint-like effect. Speech difficulties are avoided because of the elimination of large bars and retainers. This type of appliance permits more normal heat, cold, and taste perception, and, according to Doctor Grosser, is the nearest to fixed bridgework in efficiency.

He practically limits his internal precision bridge to those cases in which the abutment teeth are broken down. They must be fully covered.

When perfectly good teeth are present and the denture is to be expected to function successfully, a clasps-retained appliance is justifiable to avoid cutting into them for castings.

The precision abutment tooth must be prepared with a recess so that the female attachment can be incorporated within the contour of the cast crown.

Doctor Grosser maintains that when patients present only two canines in either arch, and they have good, healthy alveolar bone with no periodontal or gingival involvement, the use of a fixed anterior bridge with full crown coverage and an internal attachment on one of the central pontics, as well as on the distal of the cuspid crowns, provides good retention. In addition, carrying the saddles over the maxillary tuberosities or the mandibular retromolar pads for good seating will usually insure the success of the denture.

The unilateral edentulous jaw has always been a problem. With full tooth coverage and a well-constructed saddle for the edentulous area, precision attachments offer far better efficiency than crib clasps.

According to Doctor A. S. Young, in upper posterior unilateral cases, with the mechanical and biological factors answered positively, fixed bridges are preferred in all cases where one or two teeth are to be replaced, except in such cases which cannot be made self-cleansing. When the vertical dimension is so short that space is insufficient for this purpose, or in cases where the healed ridge is positioned so far to the lingual of the buccal alignment that an extreme buccal ridge lap is required in the appliance, the precision bridge makes a more satisfactory restoration.

Views of Doctor Schweitzer

In a previous article I discussed briefly Doctor J. M. Schweitzer’s comparison of the clasp with the precision denture. It may be appropriate at this time to review some of his statements.

As a rule, says he, the precision case is more expensive to construct, although markedly superior esthetically to the clasp denture. The former allows slight vertical and lateral play, which is stimulating to the surrounding tissue.

Precision bridgework is more difficult to adjust, is more costly, and requires greater skill to repair. It is contraindicated where the abutment teeth are too short or all tipped forward. In the former case, it is almost impossible to make a normal attachment.

In the latter instance, the precision case can push the bridge out of position too readily.

Also, in the case of the lower lingual bar, distal extension case (no posterior abutments) with precision attachments, the forces of occlusion will cause an unwanted force on the posterior segment, causing abnormal pull on the abutment teeth. Tipping and bending of these teeth is not nearly so great when clasps are used.

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4 The dual impression technique as described in "Impression Techniques," October 1953 TIC compensates for this abnormal leverage in free ending saddles.

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mements. Doctor Leff holds that quite often in such cases, the aid of the periodontist can be enlisted to lengthen the clinical crown and reduce pocket depth by constructive gingivectomy.

If necessary, additional retention can be secured by the use of lingual clasps. It is Doctor Leff's opinion that the type of attachment most favorable with short teeth is one which has leaves that open along the entire length of the maleattachment, so that it will maintain a spring action when it is shortened.

Doctor Leff divides the construction of a precision appliance into three phases:

1. Abutment planning:
   A wide distribution of stress is accomplished by means of fixed bridgework, multiple splinting, and wherever possible, by full crown coverage, with a acrylic veneer when necessary.

2. Saddle design:
   The denture saddle should be a faithful reproduction of the maximum denture-bearing area, taken with the tissues in their passive state.

3. Relationship of saddles to abutments, both at rest and during occlusal stress:
   This can be accomplished by the dual impression technique, making an accurate impression (with free-flowing impression paste) of the saddle areas at rest in an individual shimmery tray then exerting final functional stress on this tray while a second impression (in plaster) is made, which records the relationship of the abutment teeth to the first impression and to each other.2

Cases of Extension Saddles
After more than thirty years of experience in their construction, Doctor G. M. Hollenback feels that precision attachments are particularly indicated in cases of extension saddles and in extension cases which have an abutment at each end of the saddle. In this instance he suggests that the denture can be further stabilized by the use of a lingual or palatal bar. Furthermore, if extension cases are to function properly and not be a menace to the remaining teeth, some type of stress-breaker must be utilized, says Doctor Hollenback.

To date, the Chayes' distal extension stress-breaker is the best appliance for the purpose. Doctor Chayes used it in conjunction with the Peeso split pin and tube for the purpose of permitting the abutment tooth to undergo its normal cycle of movement.

Doctor B. B. McCollum combined Doctor Chayes' buccolingual attachment and distal extension stress-breaker, thereby developing the most useful retaining device known today. Its move-

cility can be readily adjusted to various types of mucosa, increasing or decreasing the movement—depending upon whether the mucosa is soft and spongy or firm and resistant.

It is the belief of Doctor David Groser that in many instances where few teeth remain, the internal precision attachment is the only method of retaining a partial restoration and it avoids the necessity for resorting to full dentures.

When indicated, he feels this attachment offers a method of denture construction conducive to emotional stability, excellent esthetics and good masticatory function.

Clasp Retainer or Precision Attachment?
As for the clasp retainer or the precision attachment—which shall it be?

According to Doctor Grosser, direct clasp retention is indicated when:

1. The general hygiene promises to be good.
2. The remaining teeth have no periodontal involvement and are properly distributed for clamping.
3. The abutment teeth have the necessary convexity and lend themselves to proper clamping.
4. The denture can be expected to render many years of service.

As for the internal precision attachment, Doctor Groser indicates its use when:

1. Few remaining teeth are present.
2. The mouth hygiene promises to be poor.
3. The abutment teeth are overfilled or broken down, yet are serviceable if they are restored by full coverage.
4. Splinting of teeth is indicated to aid in their preservation.
5. The economic status of the patient will permit its use.

The committee members found it took time to change the old ideas on nutrition held by many of those in charge of the preparation of foods.

However, interest in dental health was growing. The mothers' were devoted one meeting of the year to dental health exclusively and appointed dental health chairmen, as well as health chairman, in their respective chapters.

In the classrooms, dental health teaching manuals were passed out to children in the grades.

In the schools, dental health teaching manuals were passed out to teachers in the elementary grades.

Mothers and teachers requested more dental lectures and Doctor Taylor Dykes, Public Dental Health Officer for the State of California, gave two talks, "The Importance and Possibilities of Dental Health Education and What the Teaching Staff Can Do to Put Into Action a Better Dental Health Program," and "They Are Our Children." In the latter talk, Doctor Dykes used case histories to show the relationship between dental ill health and academic standing, and emotional and personality maladjustments. Adelle Davis gave two talks, "Fundamentals of Nutrition and School Lunches" and "More About Basic Nutrition."

Doctor O. W. Van Derhoel, pediatrician, gave a talk on children's dentistry, and the health officer and the health educator of Long Beach each gave dental health reports.

Recordings were made of all the speeches for the future use by smaller parent and teacher groups.

Children Prefer Good Food

When the committee and the school authorities first talked of removing candy, Coke and other soft drink vending machines from the school grounds, it was feared that there might be trouble from the children. In fact, the experiment was conducted in a nearby school.

Two tables in the gymnasium were filled with food, one with so-called junk food, that is, candy, soft drinks, cookies, doughnuts, and such, and the other with so-called good foods—milk, fruit, nuts, cheese, celery, radishes.

The children were let in from afternoon play and told to take their choice of the food. To the surprise of many of the adults, more children partook of the "good" foods, although they were not particularly cooked. When they had finished, some of the candy, cakes, and soft drinks were still left on the "junk" table, untouched, while the "good" food table was clean.

It was concluded from this study that most children eat because they are hungry. If good food is available, they prefer it to the sweets. However, they will fill up on whatever is handy. Moreover, the sweets fill them up quicker, although they take in more calories in less time, the candy eaters eat less actual bulk and, of course, receive few if any nutrients.

With this in mind, the committee decided to have all candy and Coke machines on the school grounds and buildings replaced with milk, peanut, apple, and popcorn machines. This program has been slow in getting started, but a large dairy has purchased a number of milk-vending machines, which will be placed in the schools in the near future. Popcorn and peanuts: machines are already installed in most of the schools. It is encouraging to see that the children are patronizing the new vending machines as heavily as they did the old candy and Coke ones.

As was expected, the improvement shown in the children's teeth between the first and second year: surveys was small. It will take time to produce results. However, with the cafeteria program getting into high gear, and with the elimination of the soft drink and candy-vending machines, future surveys should record substantial improvement.

P.T.A. groups from the public schools are watching the parochial school program and are already putting pressure on public school officials to bring about the adoption of similar programs of dental health. However, in the public schools we have a larger, mixed group to influence, with manufacturers of soft drinks and candy blocking the way. But the wedge is in. The parochial school program is off to a running start. As it gains momentum and shows the results of good diet on children's teeth, the public schools will be forced to adopt similar programs.

We in the Third District hope that, as other dental societies throughout the country see the effective results of this community dental health program, they too will install similar projects. Someday this approach to dental health may prove to be the most advanced step in preventive dentistry since fluoridation. Perhaps, too, this education of mothers, teachers, and children may be the answer to socialized dentistry.
Dental Wives:

A Man Needs A Rich Wife

by Kay Lipke

The dentist's wife was frankly exasperating. In the seat behind her on the bus, a boy in his late teens was expressing some of his ideas to the girl who sat beside him.

"Well, there's one thing certain," he announced, "when I marry I'm going to pick me out a rich wife."

"What a hard-boiled thing to say!" the girl protested. "You should be ashamed of yourself."

"Not at all! It should be just as easy to fall honestly in love with a girl with money as with a girl who hasn't a dime. With the present crazy economic set-up, a fellow can't hope to earn enough to support a wife and have children before he's thirty. His wife either has to get a job or have an allowance.

His wife either has to get a job or have some sort of outside income of her own. Now I want to make a home and have children and a home of my own, and I don't want my wife to work all day in an office. There is only one choice left. It's a case of facing facts. A man these days needs a rich wife."

The dentist's wife was lost in thought all the rest of the way downtown. With erode, ruthless frankness, the boy had voiced a present-day truth—and problem. Because she had been married to a dentist for a great many years, she thought of it in regard to her husband's profession. A boy spends six years going through dental college, getting ready to begin to practise his chosen profession. Then, with his diploma in hand, and come home feeling fully satisfied with her own marriage, without creating the impression that she is a martyr.

Her pride and her happiness in the life she shares and the plans they have for their future together.

A man does need a rich wife. That is very true. He needs a wife rich in understanding, who will use her energy and her love to create for him the sort of home life he desires, whether it be in a small apartment or in a many-roomed home with a stretch of green lawn reaching from here to there. He needs a wife rich in the ability to adapt her life to his, without creating the impression that she is a martyr. She should be rich in resources within herself, and in the pleasant faculty of enjoying life as it comes, and people as she finds them.

There is no such thing as a better phrase, let us call it "abundant consciousness."

This means that she feels happy and rich wherever she goes. She can enjoy an afternoon in a large and elaborate home, expensively furnished, and come home feeling fully satisfied with her own home and her own husband. Neither does she feel the unmitigated urge to prod her tired husband with stories of the grandeur she left behind her. She feels so rich with what she has that it does not occur to her that anyone else has more.

This type of wife creates wealth in any home. Her pride and her happiness in the life she shares with her husband is "money in the bank."

WITHDRAWALS

The Removable Partial Denture

PRECISION ATTACHMENTS

The eighth article in a series
by Joseph Murray, D.D.S.

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Although the removable restoration was not his invention, the name "precision, internal or buccolingual attachment," often used to describe the system of movable-removable bridgework introduced to the dental profession by Doctor Herman E. S. Chayes (1886-1935) in 1915, under the title, "A System of Bridgework Conductive to Health and the Attachments Necessary to Construct It," is his monument.

Some of Doctor Chayes' specific teachings have never been or are no longer accepted by his professional colleagues (condemnation of fixed bridgework, tooth movement in function) but few men can claim a wider or deeper influence on their age. Many of the principles he advocated (parallelism of abutment attachments, balanced occlusion, the role of the saddle in relieving stresses on abutments) have been incorporated in other branches of dentistry and are rigidly observed to this day by some of our noted clinicians.

Briefly, from Doctor Chayes' own description, the buccolingual attachment consists of two parts, male and female. The latter is a box which is to be incorporated buccolingually in a proximocclusal or other suitable inlay, made for a cavity prepared in the abutment tooth.

It is made with a slot running orthogonally facing towards the edentulous space. The male part consists of a T-shaped plate of which the "cross" member fits snugly into the box of the female part. At the appropriate time the male part is incorporated into the bridge proper.

Doctor C. H. Schuyler feels that rotation of a tooth can be prevented by means of a sliding key which provides the walls of the keyway are parallel and make sufficient contact with an accurate fiting key before the arms of the clasps contact the tooth.

This, of course, is the principle of the Gillett clasp. It is fundamentally a deep-seated, straight-sided rest, maintained in position on the tooth by means of the clasp arms.

Pressure from the bridge to the abutment tooth is transmitted by the rest instead of the clasp arms, and this prevents torsion by the clasp on the tooth. It is important to relate the male attachment to the saddle in such a manner as to prevent complete seating in the female jacket. This is accomplished by making certain that about 10 mm. of space is permitted between the gingival end of the female attachment and male part, so that vertical stress will permit the saddles to displace the mucosa and receive support from the bony structures, thus eliminating trauma on abutment teeth.

Doctor Leff's Three Phases

According to Doctor Alexander Leff, a precision attachment appliance, from the patient's viewpoint, offers more comfort and security than a corresponding appliance with clasps, with an obvious advantage in esthetics.

Regarding the factor of short teeth often mentioned as a contraindication for internal attach-
this procedure. Invariably she will explain, "Why, Doctor! I never knew I had any tartar there!"

Now a few words of caution. Even the most skillful job of scaling is often very sensitive. To lessen the pain, apply a topical anesthetic directly to the tissue and dip your scalers into the solution as you work. Finally, scaling is a messy job. Don't use the patient's towel to wipe your instruments.

REMOVAL OF STAIN

The removal of all the stain is expected by the patient when she has her teeth cleaned. Unfortunately, however, most patients expect to see beautiful shiny white teeth when you are finished, even though the teeth may normally possess deep yellow coloration. Be sure to inform the patient that all food and tobacco stain will be removed (which is often a tedious task in itself) but that the natural color of the teeth cannot be altered. A stiff brush with flour of pumice mixed with a flavoring agent will usually remove the stain—if you stick to it. For the inaccessible places, a Rocate polisher will prove handy. After the brushing, which should include all the teeth and all surfaces, a rubber cup may be used for further polishing.

And now, another word of caution. Even though your patient's clothing is protected with a large plastic apron, the face is a sure target for wet pumice. To minimize the splashing, apply the pumice directly to the teeth instead of carrying it on the brush.

RECHECK THE MOUTH

When you are going over each tooth carefully during the prophylaxis it is a good time to recheck the mouth for any cavities that might have "slipped" by unnoticed. It is also a good time to be sure that all the restorations, old and new, are polished and that all high-spots are eliminated.

DENTAL FLOSS

Dental floss or the wider dental tape should be dipped into the pumice and used to clean the interproximal stain and remove any loose particles of calculus that might have lodged between the teeth after the scaling and brushing.

INSTITUTE PROPHYLACTIC MEASURES

Smooth out all cracks and chips in the enamel by light grinding and polishing. This will reduce the chances of cavities in those "broken enamel" areas. Any anti-caries treatment you deem advisable should be given at this time, as well as treatment for carious areas with zinc chloride, Impregum or other precipitating agent.

TOOTHBRUSHING INSTRUCTION

After the prophylaxis is completed and the patient's mouth has been flushed with a pleasant tasting astringent mouth wash, you may teach her how to properly brush her teeth. At a previous visit you will have told her to bring her toothbrush and at this time you can have her follow you as you demonstrate upon a model or in the patient's mouth.

When these six steps are completed, you will have a satisfied patient, a good fee, and the right to enter the word "prophylaxis" on your record card—for you will have rendered a service in the prevention of disease.

M. T.

1954—For Good Times' Sake—1954

Now is the hour when friends combine
Their voices to sing "Auld Lang Syne"—
Baker, broker, banker, teacher,
Salesman, plumber, artist, preacher,
As the chimes of New Year ring.
Open wide their mouths to sing.
I am with them, loud and joyous.
Faith in our several prospects buoy us up.
Hurray! The old year's dead
And though we came out in the red,
We foresee no grim austerity.
Fifty-four though we came out in the red,
And though we came out in the red,
We foresee no grim austerity.
Fifty-four

Fifty-four will bring prosperity!

Bigger profits this next year.

My "business" may not be secure—
No swimming pools—but it is sure.
I survey with some serenity
Evidence of work for me:
Tenors, baritones, and basses.
All have teeth within their ranks!

So I reflect on proper maintenance,
While we sing of "old acquaintance;"
For I have a premonition
Mouths in similar position.

Are what will bring—eventually—Prosperity face to face with me!

Helen Harrington

All of them expect to clear
Their voices to sing "Auld Lang Syne"—
Baker, broker, banker, teacher,
Salesman, plumber, artist, preacher,
As the chimes of New Year ring.
Open wide their mouths to sing.
I am with them, loud and joyous.
Faith in our several prospects buoy us up.
Hurray! The old year's dead
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Music and Dentistry

Now a few words of caution. Even the most skillful job of scaling is often very sensitive. To lessen the pain, apply a topical anesthetic directly to the tissue and dip your scalers into the solution as you work. Finally, scaling is a messy job. Don't use the patient's towel to wipe your instruments.

Toothbrushing Instruction

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M. T.
It's not his mouthpiece!

Dental Thisa and Data:

A big, fat, happy 1954 to you. . . . From across the Atlantic comes the report that the British government will soon be asked to consider the problem of fluoridation of public water supplies. A group of British scientists who recently completed an extensive investigation of fluoridation in the U. S. and Canada have returned with a most favorable report on the procedure. The mission found that great benefits were to be had from the fluoridation process and that there was no harm in it. . . .

In endeavoring to help the dentists in the Armed Forces keep abreast of the latest developments and techniques in dentistry, the Armed Forces Journal regularly includes articles of interest to the various military district commanders, in Europe in particular, hold monthly scientific meetings and bring before the dental officers highly qualified lecturers and clinicians.

In-dentals:

It's Hard-to-Believe Dept.: Every two seconds at least one person is admitted to a hospital in the U. S. . . . With the automobile the potential weapon that it is, of the 60,000,000 car drivers in the country, more than 15% ever had any formal training in driving.

Everyone is making predictions about 1954, and we thought we'd like to get into the act. So don't count us if we're wrong, but:

Although the drafting of doctors will ease up considerably by next summer, a relatively large number of men will find that for them, Life (Army, that is) Begins at 40.

More dentists home from the service and starting practice in a new location will shy away from the big city areas. Somebody in Virginia, Illinois, Texas or Pennsylvania is going to go to jail or pay a fine for hurling a denture at somebody else.

Some celebrity is going to make the front page because he or she was hospitalized for the surgical removal of a third molar.

There will be at least one photograph in the newspapers of a newborn baby with teeth.

One of the Nation's large zoos will reveal the fact that one of its lions, tigers, hippos or other beasts had a toothache.

In-dental Opinion:

The child who talks big and brave before getting into the dental chair is the first one to start crying. Metal appliances are the cleanest looking ones in the mouth.

The patient with whom you usually run into unexpected trouble is a member of the family or a special friend.

Nothing is as annoying as a patient without patience. Generally speaking, dentists don't have good-looking teeth.

The dentist whose hobby is sculpturing or painting is usually a very good operator.

The idea that women are better dental patients than men is a myth.

Female patients with neglected mouth seems to be the most critical ones about matching up silicates.

European dentistry is far better than most Americans realize.

Young dentists seem to have more confidence in their ability than young men of other professions.

Most dentists don't have any hopes of amassing a fortune in dentistry to be able to retire at 65.

The dentist who cannot carve up wax patterns well in the mouth thinks the indirect method of making inlays is the best.

The dentist who orders rubber dam often, is an excellent worker.

Most specialists go out of their way to be very friendly at dental meetings.

Patients who owe money are rarely completely satisfied.

Patients are more favorably impressed when the dentist has an assistant working for him and they see other patients enter or leave the operating room.

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