The period we call the Middle Ages is one of the darkest ages of history. During that difficult time, however, civilization persisted — even flourished. To that period we dedicate this issue of TIC.

This beautiful TIC cover is adapted from the Cathedral Group at Pisa (1067-1173). One of the most celebrated Romanesque groups, its companion is one of the wonders of the world. The Leaning Tower of Pisa, as we know it, is 179 feet high and leans more than 16 feet out of perpendicular.

Historians agree that the architects never intended to have the tower lean.

It was during this period that the Occident, theretofore the leader in the field, ceded to the Orient, for some centuries, its heritage of ancient medicine and with it ancient dentistry.

* tic is sent to you with the compliments of your Ticonium Laboratory
by Maurice J. Teltzbaum, D.D.S.

Dental Thing and Data

Th e new $3,000,000 dental school of the University of Oregon will be completed by June 1956. This year marks the 90th anniversary of the New York College of Dentistry. A poll of dentists showed that, for 80 per cent of them, dentistry was their first choice as a career. The majority of those who said that dentistry was not their first choice, favored medicine, with engineering next.

A British research team reports that tea contains just as much fluoride as the fluoridated water in the water supplies of American cities. Perhaps a report will be forthcoming as to the fluoride content in wine and beer from the French and German researchers respectively.

incl-dentals

Springtime is the time for love, flowers, and the veterans" or "crippled soldiers" . . . Anyway, the best way to work slowly and carefully and to do my best to make the work easy on them.

The first chapter is entitled, "The Fading Voice." One of my greatest faults was the fading voice. Perhaps you too have been troubled with a voice that disappears into a thin whisper at the most critical moment. For example, when your patient says, "How much did you say that one tooth bridge would cost?" do you reply, "Well—er—it really isn't—that is—and fade out? If that's your trouble, the author suggests a helpful exercise. Stand before the mirror and repeat twenty-five times each day, "Teeth take time to trim—so do patients."

The second chapter is called, "The Unfriendly Voice." Friendliness is very essential in your practice. In fact, I have always felt that friendliness should be next to neatness—only cleanliness got there first. Always greet your patients with a smile and a friendly voice. Even if you had a spat with your wife, your son spilt salad on your new trousers, and you get a RIgue from the Ridge, she told me.


"Go on in, he's kind and easy," she persuaded.

When I opened the hall door, the patient was chewing her finger nails, still upset by a dental experience that took place less than an hour before. "I nearly died the evening when he jerked a large abscess and starved him of blood and oxygen," she said to me.

It took a half hour to convince her that she could trust the dental profession. I was careful to promise her nothing except to work slowly and carefully and to do my best to make the work easy on her.

To avoid the risk of breaking promises and of frightening patients, we should never use words that suggest pain, such as "stick," "cut," "needle," "hurt," "sting," "knife," "lance," and so forth. We can say "open the abscess," rather than "lance it" or "cut it." We can use a "spring" instead of a "needle." We can say, "You may feel this," instead of "This will hurt a little." We can tell our apprehensive patients that we will take it slowly and carefully so that it will be easy on them.

Promises to Patients

Recently I heard the words of a dentist at work on a little girl. "I won't hurt you," he kept saying, but the child continued to cry.

However, the operator obviously was hurting the younger. After such a broken promise, the child could not be expected to fully trust the dentist. It would have been difficult for him to regain her cooperation and confidence.

How would a dentist have felt, I wondered, if a patient had promised to pay him $300 at a specified time, but failed to make his promise good?

It would help dentistry if dentists' deceptions, however well-intentioned, never happened. But they do occur, and too often—both with children and adults.

I always remember a situation that occurred thirty-five years ago. A young woman, accompanied by a friend, came to me just after running out on another dentist. The two stood in the hall, the friend trying to persuade the patient to enter my office. "Go on in, he's kind and easy," she persuaded.

When I opened the hall door, the patient was chewing her finger nails, still upset by a dental experience that took place less than an hour before. "I nearly died the evening when he jerked a large abscess," she said to me.

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Calm, kind words denote friendliness and make tasks seem easier; harsh words provoke anger, make our work more difficult,
and cause patients to desert us. As one of my patients said about her former dentist, who had died: "I liked him very much. He was gentle and always let me know what to expect."

Let's look at denture work, for example. What a difference there is in months. No two are alike and no two persons judge the value of dentures similarly. One patient will complain about the "fit" of her denture which has to be dialogued with an elevator, almost; while another—as one dentist wrote, "will wear hers upside down with complete satisfaction and pride." It depends upon what patients expect.

We can never foresee what each and every patient may expect. Therefore, if we cannot make our pledges with big "ifs," we had better not make any at all. We can only give a patient an approximate picture of what to look forward to—no more.

If we promise about 70 per cent satisfaction from a service, some patients will nevertheless expect 100 per cent. Suppose we could construct a certain appliance for $500, another for $250, and the best for $300. A patient would hope to have as much art, face-lift, glamour, and quality from the least expensive item as she would from the best one, even if we explain the difference beforehand. We can, however, head off some complaints by being explicit in our explanations.

Then there is the matter of "curing" trench mouth or pyorrhea, or healing a broken jaw, or doing a successful apicoectomy and whatnot.

"Guaranteeing" our work is, of course, another way of making promises. I remember a patient who came to me from another dentist who had guaranteed a bridge, which broke before the guarantee ran out. "Then the dentist wanted $17 to repair it," the patient told me. "That's why I came to you. His work didn't stand up and he reneged on his promise."

Another patient wearing ill-fitting dentures wanted me to make her a new set and guarantee them. I refused. She went to another dentist for the work, but was disappointed a second time. A year later she returned to me. "I remembered that you said you wouldn't guarantee your work but would do your best," she said. "I guess that's good enough for me this time."

"Guaranteeing" our services is a more dependable profession by avoiding promises that we cannot keep.

We feel a patient has gone to us for help. Remember what a famous medical man wrote, "Nothing is said about stopping decayed teeth."

"Guaranteeing" our work is, of course, another way of making promises. I remember a patient who

**A DENTAL SOLUTION**

_Whenever I have a problem child_

The best solution I've found to be:

Is more and more of toys and such

And less and less of psychology.

Alvin A. Shure, D.D.S.

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Decayed teeth were also crownied with a red hot iron or with a lighted piece of ash-tree wood, a treatment held to be much more effective if the cavities had previously been filled with the paste. Nothing is said about stopping decayed teeth. We are advised to clean carious cavities with aqua fortis, enlarging them so they are less liable to collect alimentary residues.

**Fumigation**

For the relief of toothache it is recommended that the mouth be fumigated with the age-old narcotic herbicide; a pencil drawing from a thirteenth-century French manuscript of the Chirurgia, by the South-Italian Roger Fugardi, shows the patient bending his head with open mouth over a coal-fire. After more than seven centuries we are fortunate enough to have a series of such drawings giving the sequence of events like a movie. The fumigation is without any effect and an abscess develops, producing a swollen face. The patient approaches with supplicating gestures the surgeon; the latter, in a magnificent gown and round hood with earlaps, is sitting gravely on a richly ornamented chair. He takes a pearsahed knife and opens the abscess, the patient's hands being bound together and his head gripped firmly by an assistant. A compress is held over the wound by a narrow bandage after the operation.

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**March 1955 tic**
The period we shall now consider, the Middle Ages, is generally regarded as one of the darkest ages. In this era, civilization persisted and even progressed. It is true that political conditions in that era hindered the development of medicine. The Crusades played a role in the field, which led to the Orient, for centuries, its heritage of ancient medicine and with it ancient dentistry.

To the Arabs, care of the teeth was an almost religious obligation. The modem Alhucasis, who died about 1015, is only Arab to write on surgery, in his Cyriaca gives detailed directions for removing hardened tartar, an operation he considered to facilitate easy scraping and chipping of the tartar scales on the inner and outer surfaces of the teeth and between the teeth. To give the holder a more secure grasp and enable him to guide the little instrument steadily, the handle is grooved, spiked, covered with blunt, odontoid or buttonlike projections, or bent in wavy or even zig-zag lines. What seems to us strange, Alhucasis puts the blame for bad breath not only on rot in the mouth or stomach, but also on putrid juices flowing down from the middle brain ventricle to the palate. He recommends that vinegar in which gold has been cooled many times, or that gold itself, be held in the mouth.

Brief chapters relating to dental diseases and their treatment can be found in nearly all medieval works on general medicine and surgery written by oriental and western authors such as John of Gaddesden, Konstantinou Athanasius, Guglielmo di Sallietto, Lanfranc, Gug de Chauliac, Rhazes, Avicenna, Alhucasis, and others.

The Cautery

The usual instrument for treating dental caries, gingivitis, gingival fasciae, pyorrhea, epulis or other tumors of gums and maxilla was the cautery, a small, red-hot iron bar, variously shaped, which was highly important. The patient is to sit between the hands of the surgeon and lean his head back on the doctor's chest; this position makes possible the cleaning of front and back teeth in one or a few sessions. Alhucasis describes and represents in drawings a large group of small instruments to be used for this work, the rasum dentium. These instruments look quite different in the various extant handwritten copies of the Cyriaca (as at that time there were no printed books), depending on the greater or lesser skill of the writer or draftsman who copied text and pictures from an earlier manuscript. Many of these tartar-removing instruments are two-edged, some single-edged; the edges are properly shaped to facilitate easy scraping and chipping of the tartar scales on the inner and outer surfaces of the teeth and between the teeth. To give the holder a more secure grasp and enable him to guide the little instrument steadily, the handle is grooved, spiked, covered with blunt, odontoid or buttonlike projections, or bent in wavy or even zig-zag lines. What seems to us strange, Alhucasis puts the blame for bad breath not only on rot in the mouth or stomach, but also on putrid juices flowing down from the middle brain ventricle to the palate. He recommends that vinegar in which gold has been cooled many times, or that gold itself, be held in the mouth.

Because of space limitations, no attempt will be made to go into all of the ramifications of the new Code. Only those aspects of the law which may be generally helpful to dentists will be discussed and only in sufficient detail to set forth the principles and applications.

DIVIDEND EXCLUSIONS. The first $50 of dividend income can now be excluded from an individual income tax return if the joint return the exclusion is $100, it both husband and wife receive dividends. In addition, a credit against tax is allowed on dividends received after July 1, 1954, which will reduce the tax bill.

MEDICAL EXPENSES. The ceiling on medical expenses has been increased from $1,000 to $2,500 for each exemption, with a top limit of $10,000 for joint returns or "head of household" status. The 5 per cent exclusion rule for medical-dentai deductions is no longer in effect: the allowable deductions is now the amount in excess of 3 per cent of adjusted gross income. (A dentist and his wife, if either is over sixty-five, may ignore the 3 per cent exclusion). Drug expenses, however, are now subject to 1 per cent exclusion, the balance being added to medical bills before the 3 per cent exclusion is figured.

Example: A dentist has adjusted gross income of $8,000. His medical bills are $500 and drugs $150. He excludes $80 (1 per cent of $8,000) of drug expense and adds the remaining $70 to medical bills, making $570. Next, he excludes $240 (3 per cent of $8,000), leaving $530 deductible. Under earlier regulations only $520 would be deductible, $650 less 5 per cent exclusion. This liberalization of medical-dental deductions alone may make itemization of personal deductions a tax-saver when added to other deductible expenses.

If travel is necessary for medical care, transportation costs are deductible as part of medical expenses although meals and shelter incident to such travel is not.

CONTRIBUTIONS. Contributions can now be more generous and result in added tax benefits. To religious organizations, schools, and hospitals 30 per cent of adjusted gross income may be contributed and be deducted in a tax return. To other qualified organizations and institutions, the 20 per cent limit of the past applies. However, by careful apportionment, a dentist may contribute a total of 30 per cent, even though part goes to organizations confined to the 20 per cent limit. Thus, he can contribute 20 per cent or less of his adjusted gross income to organizations with the lower ceiling.

INSTALLMENT INTEREST. The interest charges on time-payment purchases may now be deducted even though the exact amount of the interest is not known. A taxpayer is permitted to calculate this interest at a rate of 6 per cent of the average unpaid balance. Parenthetically, a recent court decision has ruled that "carrying charges" are interest for tax deduction purposes. Heretofore, carrying charges, if not expressly stated as interest, have been disallowed. It will still result usually in greater deductions to ascertain the actual interest or carrying charges paid, as generally these will exceed the arbitrary 6 per cent allowed by the Code.

SALE OF A HOME. In today's real estate market, many private homes are sold at a profit. If a new home is not purchased, the sale profit must be reported as a gain. Until now the gain on such a transaction has been determined by subtracting cost from selling price. Now, the gain, if any, may be reduced by adding to the cost any expenses incident to fixing up the home to make it more readily salable, such as painting and repairs. These expenses, however, must be incurred within 90 days of the date of the sale, or the balance of the sale must be paid not later than 90 days after the sale. Other costs incident to the sale are also deductible such as a broker's commission.

EMBEZZLEMENT AND THEFT LOSSES. These losses can now be deducted only in the year discovered, so if such losses have been discovered in 1953 they must be reflected in the 1954 return.

CIRCLE CARE. Under certain conditions a dentist may be permitted to deduct up to $600 for the care of a dependent child. To qualify, he must either be a widower or be legally separated or divorced, and the child must be under 21 years of age and mentally unable to care for himself. The same rules apply to a woman dentist who is a widow or
who is legally separated or divorced. The payment must be a matter of fact and it may not be made to another dependent.

If a dependent's wife works, a deduction may still be taken if: (a) a joint return is filed, (b) combined adjusted gross income is $4,500 or less. If it is over $4,500, the deduction is reduced by the amount it exceeds $4,500. Combined adjusted gross income is $4,500, resulting in an exclusion of $90, with only $150 deductible. If a wife works only part of a year, the deduction limit must be pro rata in relation to the length of time worked. Thus, if a wife works only four months, only $90 is deductible, subject to the other qualifications. It should be noted that in order to take the child care deduction, it must be financed and this bars the use of any of the standard deduction.

**DEPENDENT PARENTS**

Dependency rules have been liberalized and need watching. If a dependent is contributing to the support of a parent an exemption may be available if he can prove that no one else can support the parent. The new Code provides that any individual can be claimed as a dependent, if such is the fact, provided the dependent is domiciled in the taxpayer's home. Dependents not residing in the home are still limited to the same close relationship as in the past.

**Death or Depriving of Support**

If a dependent's wife dies, he may continue to have the benefit of split-income taxation, as conferred on him by a joint income tax return. This benefit is available for two years but only if there are dependent children.

**HEAD OF HOUSEHOLD**

A dentist is now able to qualify as the head of a household, affording him about half of the tax-saving advantages of split-income tax return, if he supports a parent, even though the parent does not live with him. The fact of support, not the place of residence, is the controlling factor.

**Separate Support**

A court decree is no longer necessary to qualify payments made to a wife, provided they live apart and they do not file a joint income tax return. Such payments may be deducted by the husband and they are taxable to the wife. The separation agreement must be in writing, be signed subsequent to passage of the new law. Court ordered support payments, even in the absence of a divorce or written separation agreement, are also deductible if made after passage of the law. However, the court order must have been signed after March 1, 1954.

**Filing Deadline**

Final date for filing individual income tax returns is March 1, 1954.

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**Under the listing of dentists in the Los Angeles telephone directory is the name of Doctor L. C. Bud Houser.**

A good many thousands of sports-minded Americans will remember Bud Houser as one of the great athletes of all time. The nickname Bud, given to him as the youngest of a family of eleven children, followed him into the sports world, and became a part of his professional name as a dentist.

Young Houser's brilliant athletic career started in high school, in track as well as football and baseball. He was sought by the Chicago Cubs as catcher. However, most of his athletic fame came from track. He won approximately twenty national championships, and was a three-time winner in the Olympic games, taking the shot put and discus events in Paris in 1924 and the discus event in Amsterdam in 1928. He is probably the only dentist so to distinguish himself in the Olympic games.

In the stands cheering him on in Paris in 1924 was an attractive Los Angeles girl to whom he was engaged. In Amsterdam the same girl was in the stands, again cheering him on to victory. However, this time she was Mrs. Bud Houser, having married the track star in 1924, when both were sophomores at the University of Southern California, where Bud was studying dentistry.

That was thirty years ago, and Dawn Houser has been cheering him on ever since. She has always been proud of his athletic accomplishments. She understands many of the problems connected with his dental career, for her father was a Los Angeles dentist. In fact, he built the first bungalow office in the city. At his death, Doctor Houser took over the office and is practicing there today.

Bud and Dawn Houser are a charming, well-adapted couple. They have two children, who are attending the University of Southern California. Both Bud and Dawn are interested in all collegiate athletic activities and attend as many home games as possible. In fact, few people in their "middle years" get more fun out of college sports.

They have a mountain cabin at Lake Arrowhead, and the whole family takes a keen interest in all take sports. Doctor Houser is in charge of sports for the yacht club there.

In the den of their attractive Los Angeles home there is an endless display of trophies. However, they do not all belong to the dentist of the family. His son has added a spoon and inoculated his daughter, for boat racing and skiing competition.

The living room is given over to music, with a big bass viol standing in the window. It was given to Doctor Houser as a gag birthday gift, and he immediately learned to play it. However, he is a guitarist at heart, and likes nothing better than an evening jam session with old friends. His guitar and his son's reposit in a corner ready for instant use. Then, of course, there is a piano, for the Housers cherish music.

"Bud is essentially a man who loves his family and likes to have us do things together," his wife explained. "I have always gone on hunting and fishing trips with him, and so feel a part of all his hobbies and enthusiasms."

She is interested in a great many activities and looks after most of the business affairs for the family, leaving her husband free to devote his time to his profession.

"If I had it to do over again, I would still marry a dentist," she says emphatically. "Naturally, there have been readjustments, but they have been good readjustments. I think a wife is far more of a person when she learns to place her husband's welfare and best interests ahead of her own. After all, a dentist spends his day looking after the health of a lot of highly nervous people and listening to many of their problems. He certainly wants a cheerful atmosphere and a warm welcome when he comes home."

With thirty years of good, solid teamwork between them, the Housers have developed a smoothly running family organization. Doctor L. C. Bud Houser is vitally interested in his profession, and Dawn Houser is still at his side, cheering him on.
HOW A TAPE RECORDER CAN HELP YOUR PRACTICE

by Donz Z. Mollach

Has a patient ever said to you, "But Doctor, I understood you to say . . ." and then state exactly the opposite of what you said? It happens often, too often, especially in complicated cases. Mrs. Patient may pretend to have misunderstood you; or she may not have been listening intently; or you may not have stated all the facts completely, or explained them in terms she could comprehend. Whatever the cause, there is misunderstanding and perhaps embarrassment—or worse.

To avoid such situations, it may pay you to invest in a tape recorder. No, not to play the tape back to the patient to prove you said such and such; but to hear how you sound when you present a case, whether or not you help the patient to grasp all the factors involved.

Many dentists still speak too technically for the average patient to understand. A patient, not wishing to display his ignorance, may say nothing at that time. However, on the next visit he may ask questions that cover every phase you have already explained. The dentist will then have to repeat everything.

Identify Your Faults

One dentist used a tape recorder faithfully with every new patient who entered his office for three months. As soon as the patient entered, the dentist assistant turned on the machine and recorded the entire conversation. In his spare time, the dentist replayed the recording, made notes of his errors and tried to correct them. If he felt a patient had not grasped the full import of a statement, he made a note on his work card and fully explained, on the next visit, anything which originally had not been made clear.

Self-Correction

He discovered he spoke much louder than was necessary in his small office, causing echoes, voice distortion, and unnecessary nervous tension. He practiced modulating his voice and hang draped on the windows to absorb some of the sound. He even had his telephone bell tuned down. He learned that he slurred words, and consequently made a concentrated effort to correct both his enunciation and his grammar. All the corrective measures produced smoother doctor-patient relationships, more effective use of office time, and less nervous strain for all concerned, especially the dentist.

Another dentist we know felt he was losing women patients too rapidly. The cause was undetermined and frustrating. He recorded a half dozen office conversations, then listened critically to them. To his amazement he learned that, in his efforts to project personality and exude friendliness, he had made many comments that could be interpreted in more ways than one. He quickly changed his methods, with good results.

Look over your appointment book for the last few months, doctor. Did some of these patients who should have come back, fail to do so? Think back. Have you ever had to compromise a fee because of some minor misunderstanding?

Buy or Rent a Recorder

Good tape recorders can be purchased for approximately $200. In most models, the tape may be played over and over or erased and the tape used again for a new recording. In some areas, recorders can be rented. If used intelligently, a recorder will be needed for only a few months. It can, however, be put to practical use for many years.

A tape recorder may help to improve your practice in a short time, doctor.

Partners in Progress

by Dick LaCoste

Americans living in the lap of luxury in the United States seldom, if ever, think of their Latin American brethren.

When they do, they're more likely to think of them in terms of South American millionaires. Or perhaps sinuous senoritas.

However, thoughtful Americans for many years have been aware of the primitive conditions in which many Latin Americans live. But only since 1942 have they done much about it. For it is those thoughtful Americans, who, in bringing help to Latin Americans, also help themselves.

Take the dental industry, for instance.

When the U.S. sends technicians and dentists to the rural Latin American sections, they bring the promise of better health through more efficient dental treatment. That, of course, is the primary benefit received by the Latin Americans.

income tax returns on a calendar year basis has been pushed forward one month to April 15, and an additional month's time is also given to those reporting on a fiscal year basis. Partnership returns are also due one month later than in the past.

Declaraln of Estimated Income Tax. The Declaration of Estimated Income Tax form is also due on April 15 instead of March 15. However, the dates for quarterly installments on the estimated tax, after the initial filing and payment, remain the same: June 15, September 15 and January 15. These are the dates also on which an amended estimate, if required by changing circumstances, must be filed.

In addition to giving serious consideration to the possible tax implications in the changes in the tax law, a dentist should not neglect traditional steps to insure that all professional expenses are reflected in his income tax return. Every $100 of overlooked professional expenses results in an additional income tax bill of at least $20.

It has been aptly observed that the 1954 income tax law offers something to almost everyone. However, there is nothing in the Code that automatically forces any or all of these benefits on a taxpayer. Ample time should be allowed to the careful assembly of all needed data and every effort should be made to see that all tax-saving advantages are reflected in the final income tax return. The fact to keep uppermost in mind is that the government shares taxable income with a dentist on the basis of a division of at least $1 for the government for every $41 retained by the dentist.
Operative Dentistry:

Part IV—Cavity Preparation, Class III, IV, V

by Arthur Levine, D.D.S.

"Class III cavities are smooth-surfaced cavities occurring on the proximal surfaces of the anterior teeth and not requiring a fault in the enamel for their inception," Doctor Arthur B. Gabel says. He continues: These cavities, owing to the triangular form of the proximal surfaces of the anterior teeth on which they are located, demand the formation of a triangular cavity with converging labial and lingual walls rather than the square-formed box indicated in other localities. The small size of the tooth and the close proximity of the pulp to the surface, as well as the necessity for operating in close interproximal spaces, require the use of small instruments and careful cutting to avoid pulp exposure and damage to the approximating tooth and to the interproximal gingival tissues. Approach to the cavity is obtained through the embrasure, either labially or lingually, depending on the extent of the decay."

Class III

In comparing the mechanical problems presented by Class III cavities with those of Class II, he comments: "The Class III cavity does not offer the mechanical problems offered by the Class II cavity as there is no wedge action of the cusps and very little occlusal stress at any time. As a result, little more than the retention against the pull of sticky food is required.

"If, as is usually the case, it is necessary to extend the labial, lingual, and gingival margins for prevention, a small inverted cone (in the straight handpiece) should be used to undermine the enamel and the unsupported enamel removed with hand instruments." (see Fig. 1).

Removal of decay is best accomplished with small round burs. Since the accessibility is usually limited in some class III cavities, it is easier to work with a small bur. For one thing, it gives the operator a chance to move around within the cavity without fear of bind or being "locked" in. In addition, the small bur is more easily tolerated by the patient since the blades are smaller and more closely spaced than in the large bur. The discomfort from the vibration of a large bur has to be felt to be appreciated.

As in other cavity preparations, the gingival floor (or ceiling) must be flat to resist displacement of the filling. This is best accomplished with small inverted cone burs.

In class III preparations for direct filling resins (plastics) more attention has to be given to retention. This will be described in greater detail later in the series.

"In cavity preparation for silicate cement, the extension for prevention should be omitted as the material is more prone to dissolution than the enamel," Doctor Gabel explains. "The labial and lingual walls should converge from the axial so as to form a dovetail, as the material usually shrinks on setting. The cavo-surface bevel should be omitted because silicate cement has a lower edge strength than enamel."

A word of warning about pulp exposure in class III cavities. All authors of standard texts on cavity preparation agree that the pulp is more vulnerable to exposure from a class III cavity than, for instance, a class I. The practicing dentist knows how much abuse the pulp can take in a deep class I cavity in a molar. Many such teeth have been saved even though the invasion of decay seemed hopelessly beyond repair.

But the situation is different in anterior teeth in which the interproximal cavity creates an invasion from the side of the pulp. The amount of protecting tooth structure remaining between the cavity and the pulp is never great to start with. In addition, the pulp has no place to run. The reaction of a healthy pulp to pull away from the source of irritation is not as evident in this type of cavity as it is in a class I cavity in a molar.

only sixteen or seventeen years old," he says, remembering his own experience. "You are worried about whether or not you can do what is expected of you, about whether your employer will treat you decently or abuse you; about the kind of place you will have to live in; about the cost of food and clothing and other things you will need; and, worst of all, you have that dread feeling of being so alone, so completely on your own, so inadequate—without a single other human being to help you, to fall back on if you should fail."

He grins, but grimly, "I thought that was bad—and it was. But what would I have done—I and thousands like me—without the education, training, guidance, and help that Boys Town gave me? How easy it would have been to become a rebel, a so-called juvenile delinquent! To all the good people who are understandably concerned about juvenile delinquency, let me say this: Boys Town is an outstanding example of what can be done, on a large-scale basis, to prevent delinquency. Boys Town is not a treatment program but a preventive program. It has shown the way to delinquency prevention to every community in America: give children the care and attention and opportunities they need and you won't have to worry about juvenile delinquency."

Father Flanagan put it this way: "Given the love, care and guidance which is the heritage of every boy, and the opportunity for good moral, mental and spiritual training, a boy will grow to useful manhood, a credit to himself, to Boys Town, and to his community."

America is indebted to Boys Town for countless achievements, but none more splendid than the training and guidance it gave to the homeless, friendless boy from Hurley, Wisconsin, whom it taught to be self-reliant, helpful, and kind so that he might use his skill and strength and wisdom to help others—as fate would have it, the citizens of Boys Town—look upon the stern face of the world without flinching, without faltering, and without striking back in vengeance.

May they, too, find their "homes" during this stage of the long, inexplicable journey.

Page Six
and provides his needs in food, clothing, recreation, health care, religious activity, and education, but that every effort is made to prevent institutionalizing the boy.

In the words of Monsignor Nicholas H. Wegner, the distinguished successor to Father Flanagan as director of Boys Town: "We try to keep supervision as a controlling factor than as an advisory and friendly parental influence. The boys enjoy the freedom to work out the relationships within the group according to their interest and likings, and supervision enters the picture only when a situation may get beyond their understanding.

The Boys Town program is a permissive one. There is no regimentation. Physical punishment is not permitted. There is no 'lost privilege' cottage. There are none of the usual devices associated with corrective institutions. Just as there are no barriers of race or creed to keep deserving boys out of Boys Town, there are no gates, no locks and no fences to keep them in.

It is said that the boys at Boys Town need less rehabilitation than habilitation.

Boys Town has a self-government program, which includes a mayor, councilors, and twenty commissioners, all elected for a six-month term, from among the boys, by the boys themselves. Duties include the supervision of the student government program, including a boys' court which administers justice for infractions of Boys Town rules. Punishment consists of withdrawal of privileges or assignment of additional duties. This system is for the high-school section. A similar self-government program is followed in the grade section.

Boys Town has facilities for one thousand boys, five hundred of high-school age and five hundred of grade-school age. These facilities, spread over six hundred acres, include the following:

- Grade-school section - school building, gymnasium, dining hall, four apartment buildings (each having four apartments), chapel, and dental and medical center.
- High-school section - high-school building, trade-school building, dining hall and recreation center, auditorium, administration and welfare building, twenty-five cottages to house twenty boys each, reception center, field house, and visitors' center.
- Farm - dairy barn, pasture-building, canning, slaughter house, root cellar, farm residence, storage barns, and sixty-acre vegetable garden.

"In addition to the academic curriculum, there is an extensive program of vocational education." Doctor Carlalto explains. "The trades taught include tailoring, shoe repairing, barbering, baking, wood working and cabinet making, printing, ceramics, auto mechanics, machine shop, sheet metal, radio and electronics, vocational agriculture, cooking and catering, and arboriculture. The emphasis upon vocational training stems from the fact that only a few of each year's graduates go on to college. Most of the graduates, having no one to help them, become established in business or a profession, must be prepared to stand on their own feet -- living immediately when they leave Boys Town. That is why job placement is arranged for every boy before he graduates from high school, if he has to 'go it alone'."

One Answer to Juvenile Delinquency

Frank Carlalto gets quite serious when he talks about "going it alone." It can be a pretty frightening thing to try to make a living on your own with no family or friends -- especially when one is

Conservative cavity preparation, therefore, is the procedure of choice. In children, particularly, the sensitivity of the dentin can be extreme.

In cases, a minimum of cutting is imperative. Better to leave discolored tooth structure if instantly (or experience) dictates that a few more revolutions of the bur may expose the pulp.

Class IV

Concerning the class IV cavity Doctors McCooch, True, and Inskip (Fig. 2) state: "In these cavities the location or extent of the caries on the proximal surfaces of the incisors or cuspids has either destroyed the incisal angle or it becomes necessary to remove it during the preparation owing to its weakened condition. Cavities of this type are met with more frequently on mesial than on distal surfaces. This is due to the fact that the mesial surfaces of these teeth are flatter than the distal surfaces and the contact points are nearer the incisal angle. In some cases, moderate-sized cavities beginning slightly gingivally to a contact point located close to the incisal angle will so weaken it that its removal will be required. In the majority of cases, however, the caries is deep and widespread involving the proximal surface and burrowing under the labial and lingual enamel plates to such a degree that marked extension of these margins will be required to touch sound dentin.

"In the former instance, a cavity of moderate size may be prepared on the proximal surface which will not necessarily involve a great deal of the mesial or distal lobe of the tooth. In the latter, a great extent of this lobe may be involved."

From Doctor G. V. Black: "Two principal plans are available for restorations. First, by preparing a step at the incisal edge of the tooth, which corresponds in general plan to the step preparation for proximo-occlusal restorations in the bicuspids and molars. The incisal step is prepared for the most part, by cutting away the lingual enamel sufficiently to prepare a step in the dentine without weakening the support of the labial enamel. The second plan is to prepare a step in the lingual surface, about midway the length of the crown. In addition, there are a limited number of cases in which sufficient anchorage may be secured in the dentin by undercutting the incisal edge. In this case the cavity preparation is a modification of that for proximal decay which does not involve the incisal angle."

Many teeth do not have the thickness to permit the use of the incisal step without weakening the tooth and endangering the pulp. In such cases, the lock, (or step, or dovetail, as it is often called) is cut into the lingual part of the tooth.

According to Doctor Norman R. Haig, "this lock is made at a sacrifice to mechanical advantage and must be placed as close to the incisal surface as the anatomy of the tooth will permit."

Class V

The class V cavity, as a rule, offers fewer complications in its preparation. In many respects it is like the simple class I cavity. The greatest weakness seems to be the failure to extend the margins of the cavity far enough into sound tooth structure.

There is also some difference of opinion concerning the diagnosis of a class V cavity. Frequently, the gingival margin of a tooth may be discolored or indented and yet not actually decayed.

Doctor Gabel makes his diagnosis this way: "In the early stages of this type of cavity the enamel may present merely an etched appearance. If the surface is highly polished and kept clean, caries may be prevented. Once the enamel has become chalky so that a fine-pointed explorer will catch in it, the breaking down process has progressed to the point where enamel rods have become loosened and begun to fall out. Nothing remains now except to prepare a cavity including all the affected enamel and as much more as is required to prevent recurrence of decay."

One special situation found in class V cavities deserves mentioning. Cavities that are sometimes found that the gum has grown into the cavity. Cavity preparation in this case can be messy and unmanageable. According to Doctor W. Clyde Davis: "In such cases, if the pulp is not involved, much assistance is secured by packing the cavity full of gutta-percha base, allowing it to crowd well down upon the gum. In a few days the gum will have reedled or will have absorbed sufficiently to permit convenient access."

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Boys Town Infirmary, New Medical and Dental Clinic.
The Dentist From Boys Town

by Joseph George Strack

The great problem of all human existence is to find the answer to the eternal question, Where is home? Every individual must answer it for himself. Home, in this larger sense, is the way of life through which an individual can realize his full potential for living and express it within the framework of his all-important interests and goals. It is the crucible in which one's spiritual life is forged and developed. This is the story of one who found his home—a one who, bereft of parents at the age of two years, was reared in an orphanage, later at Boys Town, and finally in the Army, to mature in the way of life in which his spiritual life is forged and developed.

One day in 1953 a young man and a young woman got out of a car in front of the Boys Town administration building at world-famous Boys Town, Nebraska. The couple looked about the attractive community of stone and brick buildings and lush acreage. The young man pressed the girl's arm meaningly. "I am home again, Stella," he said with the gravity one uses to report an incredible happening.

His wife looked up at him and smiled gravely. "Yes, Frank," she said quietly, "you are home again—and it is a lovely place."

And thus Frank A. Carlotto, one of the homeless boys of America who had become an alumnus of Boys Town, returned. Some fifteen years later, an educated man, a Doctor of Dental Surgery, a citizen with social sense and vision, to help serve thousands of his younger brothers so that they, too, might face life with a healthy body, a wholesome mind and an undamaged personality.

Father Flanagan Helped Him

Frank Carlotto's story is short and simple and severe. His father died the year he was born. His mother died two years later. He and his three sisters were placed in a children's home. Ten years later he had to find another place to live, for, having finished grade school, he was no longer eligible to remain at the children's home. The legendary Father Flanagan made a place for Frank at Boys Town. There, in this unique community of boys, young Carlotto met a thousand youngsters whose plight seemed no less than his. He learned that self-pity was profitless; was taught to take care of himself in a pathetically few brief years; graduated from high school—and was out in the world on his own at seventeen years of age.

Before he left Boys Town Frank confided to the magnificent Father Ed that he wanted to be a dentist, that he always wanted to be a dentist.

The founder of Boys Town replied, "If you desire it hard enough, Frank, you'll be a dentist."

When Frank Carlotto was ready to leave he was happy to learn that a job had been obtained for him in a dental laboratory in the State of Washington. But shortly after came World War II and a four-year hitch in the Air Corps. During those years he planned his dental education: pre-dental studies at the University of New Mexico and professional training at the Creighton University College of Dentistry.

In 1953 his hopes were realized; he received his dental degree. Hours later he and the proud young girl who had shared his dreams, his prayers, and his heartaches started for Boys Town, their "home," their way of life for all the years to come. Doctor Frank A. Carlotto was to be the resident dentist at Boys Town.

The Dental Staff

Doctor Carlotto and his colleagues in the medical and dental clinic at Boys Town have a potential patient caseload of one thousand boys. Most of them between the ages of ten and sixteen. The dental staff consists of five part-time dentists, each of whom works one day per week; Doctor Carlotto, who is the full-time staff member; and a dental assistant. The part-time men include an orthodontist, a researchman, and three general practitioners. The medical men include a physician-surgeon who is on emergency call and performs all operations, and a staff of consultants, all of whom are prominent specialists in their respective fields. Three nurses, one of whom is on duty at all times, complete the staff.

"The health services are, I believe, the best obtainable anywhere," Frank Carlotto says proudly. "Our infirmary and our medical and dental clinic are housed in splendid buildings and offer the finest facilities.

Boys Town

Contrary to popular belief, Boys Town is not an institution for juvenile delinquents. "It is a home and school for homeless, abandoned, neglected or otherwise underprivileged boys of every race, color, and creed," he explains. "More than six thousand boys have been given the benefits of its grade-school and high-school programs, its vocational training, and its spiritual guidance."

Boys Town is not supported by any church, religious organization or public or private agency. Its support comes from citizens who appreciate the need for such social facilities for boys who require them but who come from communities that do not have such resources.

"Social agencies from all over the United States seek the services and care of Boys Town for youngsters from their communities," the dentist says. "Nearly thirty-five hundred applications for admission are received annually, but we can accept less than ten per cent of them."

He stresses that Boys Town assumes quasi-parental rights over a boy upon acceptance of him.