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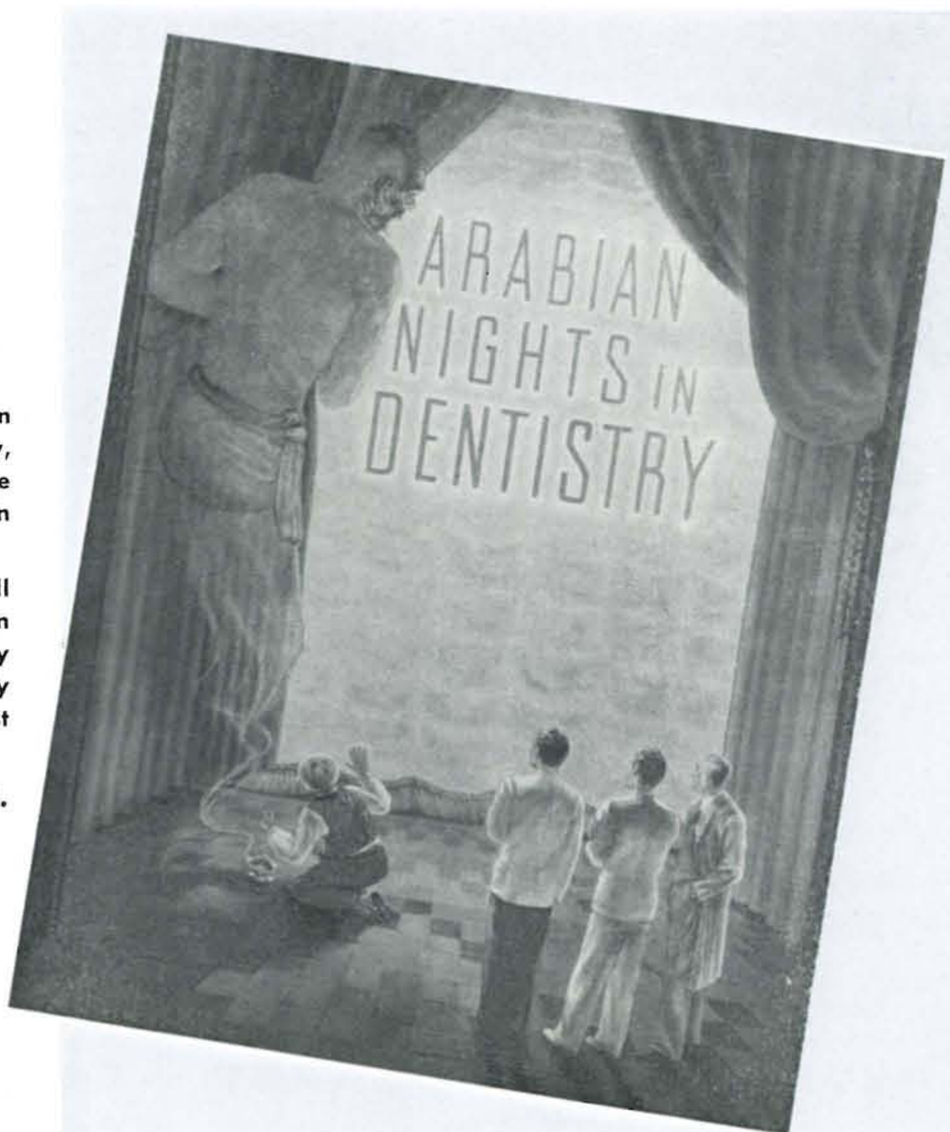
## COMING NEXT YEAR IN TIC

One of the most popular Patient Education pieces ever to be introduced to Dentistry, the "Arabian Nights in Dentistry" will be featured in a series of articles next year, in TIC — another TIC exclusive.

Watch for the January issue of TIC which will contain the first segment of the "Arabian Nights in Dentistry" expertly rewritten by TIC editor, Joseph Strack, and masterfully illustrated by one of America's foremost young artists, Edward Kasper.

**Save each issue for your waiting room.**

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# T/C

VOL. XVIII DECEMBER NO. 12 1959 25c

*"HARK! THE HERALD ANGELS SING . . ."*

Kasper

# THE NEWS IS GOOD

By KAY LIPKE

Each year during the Christmas season we look forward to hearing from friends. It is as if a bright ribbon of good will encircled us all, no matter how separated we may be in actual miles.

Our wishes, expressed by Christmas cards and letters, go out by the hundreds to personal and professional friends and acquaintances. In return we look forward eagerly to their messages telling how life has treated them through the year. With all our hearts we hope the news is good.

During the years this page has appeared in TIC, we have been in contact with a great many dentists and dental wives, dental assistants and hygienists. A few we see socially. Others we have met only when interviewing them for TIC. Still others have made our acquaintance through letters written to us from all parts of the United States and Canada.

As a sort of advance Christmas gift, a letter arrived the other day from a dental wife in Alberta, Canada, whom we met for the first time in 1954 when she wrote to say that she read TIC, and was the wife of a dentist practicing in a prosperous wheat-producing center in Western Canada. She had worked to help put her husband through dental college, and TIC published a story about this family under the title "Success Story."

This year's letter sang with well-being. The dentist had just completed building his own very modern dental clinic building in the town of Raymond, where he practiced. His wife was studying for her teacher's degree in music, in addition to looking after five children. Their eldest daughter had received piano honors at sixteen from the Toronto Conservatory of Music, their son was deep in Boy Scout work, and the three little daughters were well and happy. She ended her letter by stating, "Life has been so good to us. My husband simply loves his work, and we both love Canada." As you see, the news is very good with this family.

It is far from Alberta, Canada, to Huntingdon, Pa., but the news seems to be good there also. A young dental assistant wrote us not too long ago to tell how much she enjoyed her contact with dentistry, working as the assistant to a busy dentist in that prosperous farming community of 9,000 people. She emphatically stated that she liked her dentist, her dentist's wife and her job, and thought dentistry was wonderful. Her letter was filled with youthful enthusiasm and we enjoyed getting it.

From Wisconsin to California, from Nevada to Iowa, the letters have come, constructive, enthusiastic and, for the most part, filled with good news about dentistry and the men and women connected with it.

As we reviewed the past year we suddenly realized that there has been an almost uniform spirit of optimism among the members of the dental profession and their wives whom we have contacted for TIC.

Even some of the dentists who have been practicing long years and have lost a good deal of that first bright enthusiasm for their profession have confessed that, while they relish getting away for periodic holidays, they were always eager to get back on the job.

The picture seems good, too, for the women married to dentists. In fact, especially does it seem good for them. All we have to do is to plant ourselves in the middle of a group of dental wives and listen to them talk. Their enthusiasm bubbles like champagne. Of course, as long as the dentists keep well and prosper, and the families get along smoothly, dental wives as a rule are contented.

Of course, there have been problems, frustrations, and annoyances, but who cares as long as there have been no deep troubles to mar our lives?

This page does not presume to take on the professional appearance of Mr. Gallup's famous poll but, viewed by the small cross-section of dental families contacted during this year of 1959, the dental news has been very good.

On this optimistic note we say, with heartfelt sincerity: "MERRY CHRISTMAS TO YOU!" (And may the news from you always be good!)

1993 Lucile Avenue
Los Angeles 39, Calif.



TIC

A MAGAZINE FOR
DENTISTS
DENTAL HYGIENISTS
DENTAL ASSISTANTS

Editor,
**Joseph Strack**

Contributing Editors,
**Arthur H. Levine, D.D.S.**
**Joseph Murray, D.D.S.**

Art Director,
**Edward Kasper**

December 1959 Vol. XVIII No. 12

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# *Dentistry* IN A CHANGING NEIGHBORHOOD

By CHARLES P. FITZ-PATRICK

What several dentists looked upon as poison to their practices has become food on the table, education for his children, and money in the bank for another practitioner. This man, when faced with a problem-situation in his practice, elected to capitalize on potentials revealed through thoughtful study and testing.

The special condition in this case was the change in the neighborhood surrounding the dentist's office. The large no-longer-new homes in his area had been built originally to house single families, but were being converted into multiple dwellings. Where once individual family incomes ran from eight to ten thousand preinflation dollars, the average had slipped below five thousand dollars with depressed buying power.

As the dentist watched this condition snowball, he was aware also that many former patients were no longer calling for appointments. His office, located directly in the center of the changing area, had been his family home, formerly owned by his parents. They were still living there when he finished dental school. Because of the generous size of the house, the ground floor was converted into a reception room and operating quarters. That was fifteen years ago.

"But of course you are going to move," people said again and again as the new residents started moving into the surrounding properties. "Where do you expect to relocate?" At first he simply brushed aside these queries. His income was maintaining an acceptable level, even though strangers were replacing some of his reception-room regulars. He weighed the cost of the physical move, studied the uncertainty of starting again as a new dentist in a new section. To stay or to move? Each offered distinctive problems.

He elected to continue in his original office for a test period. For a year or so. Then another. And another. But now the dentist is pretty well settled into a new routine and the thought of rebuilding another practice has become less urgent.

The "new routine" requires a bit of explaining. For one thing, it called for a reversal of many of his former procedures. Today he has a very limited number of open accounts, each new patient is promptly introduced to the advantages of cash payments as

services are rendered. Denture work and more costly operations are financed through pre-arrangements with a local lending organization. This is in contrast with previous practices that required him to "carry" patients who were inclined to become indignant if questioned about finances. One of these families came to him early in the spring for complete and searching dental treatment. The inclusiveness of his work brought the fee up to $375, but when he mailed the bill the family had already left for a European vacation. It was October before he collected the money.

"I do spend considerably more time today estimating the cost of returning patients to good oral health," he says. "It is also necessary at times to plan appointments to match patients' periods of income." His own return, however, has moved up sufficiently to keep ahead of the inflation trend.

The dentist still mails out recall notices to patients, even though the percentage of responses is not as large as he enjoyed earlier. One of the reasons for this, he learned, is that many of his current patients are unfamiliar with the technique. Many of them had, previously, simply searched out a dentist or a clinic when a painful need presented itself. The offending tooth was then either restored or extracted and the dental relationship terminated. "I am attempting to educate these men and women to the need for some degree of regularity in attending to their dental health," he points out. He knows that the task cannot be accomplished in a short time.

When questioned about the prospects of replacing former patients who have moved away with those who now live near his office, the dentist said that there are now approximately three and a half times as many people close by than there were a dozen years ago. And there are two less dentists in the area. Thus his potentials have a mathematical advantage.

### Schools Help

A factor he believes will also work in his favor is the practice of the local school board to include oral health instructions and regular dental examinations of all children in the neighborhood schools. Many of these youngsters find their way to his office as a result of school reports on the condition of their teeth. "This adds to my patient list and also brings me into contact with their parents," he explains. In the dentist's opinion, as the youngsters move into adulthood they will have greater interest in maintaining dental health than their less educated parents. "This has already been proved to a limited extent," he says. "Those who complete their schooling and find work in retail selling, government offices, and other positions call for professional dental treatment because of the resulting social and economic advantages." Incidentally, the dentist maintains a fee level equal to the state average.

### Why Neighborhoods Change

As part of the study the dentist gave his situation, he learned some interesting facts about developments in most neighborhoods. The experts to whom he turned for information informed him that changes of one sort or another may be expected every seven to ten years. An area is inclined, they told him, to move upward during its initial seven-to-ten-year period, level off during the following same number of years, and then tend downward.

In new developments particularly, there are certain very logical reasons for these steps. Young couples bring into an area fresh enthusiasm and interest that are reflected in the attention they give their properties. As their children grow up, the owners' interests become divided and there are increased demands on their spendable dollars. By the end of the second period, which may run to twenty years, and perhaps even more, some of the children have married and moved on to homes of their own. Thus the house that was family size before becomes too much for the father and mother to care for.

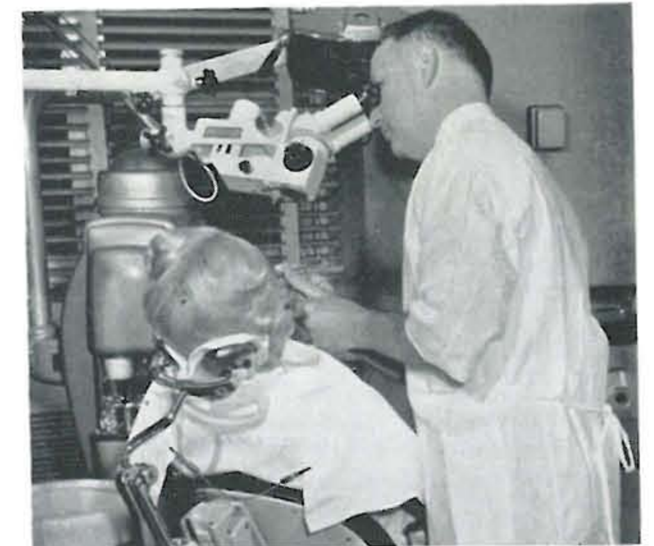
At this point most of the properties in the section are nearing the quarter-century mark in age and, unless maintenance has been regular, extensive repairs and replacements are due. While disintegration may not set in, the homes have become dated. The second owners who may begin to take over around this time usually attempt to revitalize the properties through bath and kitchen remodeling projects. But a change in the community has nevertheless taken place.

This is the pattern many authorities expect to see in the future as a result of the numerous developments that have grown up within recent years. However, certain factors can speed up or slow down the normal trend. Strangely enough, periods of boom hurry the change of most sections because those on all economic levels have sufficient funds to step up their living standards.

There are isolated cases in which a dentist who senses a coming change has opened a second office in an economically better area. He then divides his work week between the two until calls for appointments from residents in the new territory justify closing the original office.

The dentist mentioned earlier who elected to "sit out" the changes going on about him believes that anyone needing dental care is a patient regardless of his financial position. It is simply a case of adjusting. But, he admits, every professional man is not temperamentally equipped to do this. So far he has been, and it may become easier as habit takes over. Only time will prove that.

Doctor Paul N. Baer, periodontist, with histopathology technician, evaluating a periodontal research case.



Doctor Robert M. Stephan, Acting Chief, Clinical Investigations Branch, NIDR, taking samples of material from oral lesions.

gations by its own staff and through research-grant studies by outside staffs, is probing all aspects of periodontal disease. It has expanded epidemiological and biometric studies to include population groups in this country, in India, and in Ethiopia; it is realizing a better understanding of oral disease patterns, and it is improving methods for the assessment of periodontal disease.

It has under way basic studies in the fields of oral bacteriology, using germ-free animals to assess the cause and effect of tartar formation and its possible relationship to diseases of oral soft tissues; and in biochemistry it is seeking to determine the nutritional and enzyme relationships to this disease. Recognizing the increasing financial burden imposed by periodontal disease and the urgency of mounting a broadened research attack on this major health problem, the National Advisory Dental Research Council is now studying ways and means of providing more effective support to clinical and basic research teams in institutions here and abroad.

Doctor Francis A. Arnold, Jr., Director, National Institute of Dental Research.

But a formidable problem exists—the scarcity of competent personnel in the research field. One NIDR official puts it this way:

"Historically, the field of epidemiology is the only discipline which has led to control of a disease process of unknown etiology. Its practice requires skills and experience beyond the training of the dental practitioner; and current epidemiological research is severely limited by a scarcity of competent personnel. It is in this field that the support of training in the dental and basic sciences shows greatest promise for the attainment of more complete knowledge of the cause and control of periodontal disease. Parallel achievements through support of basic biological research serves to broaden the attack on this and other dental diseases."

The NIDR is attacking this difficult problem vigorously. Upon the success of that attack rests the oral health status of the nation and the growth of the dental profession. Through full-time graduate fellowships to individuals, and graduate training grants to institutions, the NIDR is helping to develop manpower to continue, and to extend, research in a wide range of basic research fields.

It is this high level of social leadership and productive professional performance that has always made the American people proud of their Public Health Service, and that makes the dentists of America especially proud of the National Institute of Dental Research.

At your service:

# WHAT THE ADA MEANS TO YOU

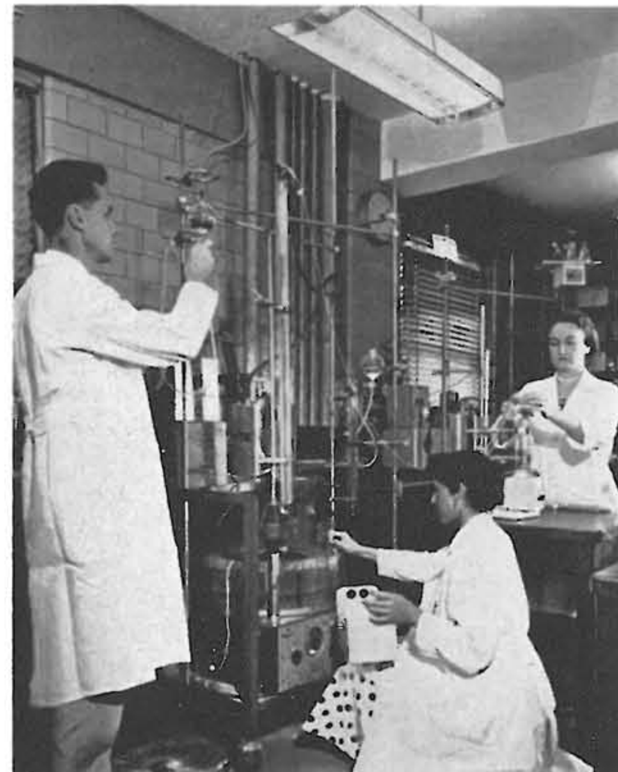
FINAL INSTALLMENT: By JOSEPH GEORGE STRACK

The American Dental Association, and dentists everywhere, are proud of the twelve-year-old National Institute of Dental Research, one of the largest and most productive dental study programs in existence.

Through the tremendous achievement of the Institute's predecessor staff in the Public Health Service in discovering the efficacy of fluoridation of public water supplies, and the further development by the NIDR staff of the application of this mass control program to the prevention of dental caries, this government unit will save the American people annually in reduced dental bills a hundred times the yearly cost of operating the whole Institute. The Institute is moving ahead on a score of fronts today. Periodontal disease, for example. An estimated 22 million persons in the United States today are in need of treatment, or extraction, or both, because of periodontal disease. This represents a dental bill of approximately $750 million.

Spelled out by a spokesman of the Institute, this is the problem: "As more teeth are saved, more teeth will remain to be attacked by other diseases. Although the onset of periodontal disease may occur early in life, its onset is insidious and its destructive progress so slow that major tooth loss is usually delayed to middle and later years of life. Hence, the preservation of increased numbers of teeth into these years has the effect of exposing them to a new hazard, heretofore relatively unimportant in a short-lived population. Current studies show that over 50 percent of the population by age forty-five are affected by periodontal disease and that about 1 person in 6 requires definitive periodontal treatment, or extraction, or both."

Today the NIDR, through direct clinical investi-



Doctor Karl A. Piez, chemist, in the Laboratory of Biochemistry, NIDR, is assisted in the analysis of amino acids by ion exchange chromatography.

Doctor David B. Scott, Chief, Laboratory of Histology and Pathology, NIDR, studies crystalline structure of dental enamel with aid of an electron microscope.

# HOW IS YOUR SPEAKING VOICE ?

By DOUGLAS W. STEPHENS, D.D.S.

Recently I was surprised to see on television a man I hadn't seen for over thirty years. I recognized his face as soon as he came on the screen, but not his voice. As I remembered him in high school, he had been a tall thin boy with such a high-pitched squeaky voice that everyone in class laughed the first time he got up to speak.

In the beginning, they called him Squeaky, but after he punched a few noses we learned to keep a straight face whenever he spoke. Hearing him now on TV, his voice was as strong and as clear as any good radio or television announcer. Later I heard that he had fought this irritable, unpleasant voice as he had done the boys who laughed at him in school, until he had conquered it. His determination to make his voice pleasant was, I am sure, only one of the things he did to succeed. I cannot imagine the man rising to the heights he has, where his position depended on a great deal of public speaking, with that old high, squeaky voice.

I suppose a dentist can be a good dentist, and perhaps a moderately successful one, and scarcely open his mouth to speak. One dentist I knew did just this. However, he hired an efficient desk secretary who did all the talking to the patients. This dentist would step in his operating room, mumble good morning or good afternoon to his patient, who would automatically open his mouth, and the dentist would go to work. When the dentist finished, he would leave the room, before the patient had a chance to talk, and let the secretary take over. He claimed he liked it quiet while he worked and patients did not waste his time with talk.

All went well until his secretary got married and quit her job. After that, the dentist never reached the heights of success he had when the girl was with him. He discovered to his sorrow that many of the patients had been coming to his office because they liked the girl. Somehow, other girls he hired never seemed to instill the same patient-confidence she had.

In reality it is the dentist himself who must talk to the patients and diagnose the cases. Like personal appearance, the dentist's voice is another one of the things by which he is judged. A pleasant speaking voice will often influence the patient in his choice of a dentist.

There is nothing more charming than a pure, mellow, resonant voice, whether it is heard on TV, in the lecture hall, in song, or in everyday conversation in the dental office.

Pope, in the *Odyssey of Homer*, said,

> "He ceas'd; but left so pleasing on the ear
> His voice, that list'ning still they seem'd to hear."

A great many times the tone and manner of a voice demonstrates culture, intelligence, and refinement. It has been said that the sweetest music known to man is the human voice. No musical instrument can be so melodious in tone and pitch. Words spoken in the proper tone and with the

"I WAS HAVING A SWELL DAY AT THE OFFICE—AND COULDN'T UNDERSTAND IT. THEN I REALIZED I WAS IN THE WRONG OFFICE!"

proper phonetic stress, as the upward or downward stroke on a musical scale, can excite passion, invite friendship, provoke laughter, thrill souls, create sympathy, stimulate courage, and move men to action.

In the dental office, it can make people like or dislike their dentist, and, if he speaks correctly, they will listen with attention and trust.

If a dentist's voice is not as good as it should be, good voice teachers can give the help needed. Proper voice training must include good enunciation, good vocabulary, and the proper methods of presenting words. To speak so as to be heard and understood, it is necessary to speak with good tone, give phonetic stress to the right words, and to use those that will best express the right meaning simply and clearly.

Public speaking is an art every dentist should learn early in his career. If it does not come natural, he should join some sort of toastmasters' or speakers' club to learn the fundamentals.

### Community Recognition

A dentist who knows how to express himself in public has a golden opportunity to ethically make himself known. He may accept invitations to talk before such organizations as the PTA, YMCA, YWCA, women's and men's clubs, Boy Scouts, breakfast, luncheon, and dinner clubs, and any other groups that may be in need of a speaker.

Prepared talks on any subject of interest will be useful, though educational ones on dentistry that encourage dental health and prevention usually are considered ethical. If a dentist is in doubt about the ethics of a dental subject he is about to give in public, the local dental society will be glad to advise and pass on the proposed material.

A dentist who becomes well-known and liked on the speaker's platform, whether dentistry is the subject of the talks he gives or not, will find his practice also has been helped. However, every dentist is warned to stay clear of controversial subjects especially in the realm of religion or politics, unless he is certain his audience believes as he does on the issues in question.

Public speaking, however, does give the speaker the power of influencing individuals and audiences. The spoken appeal carries the psychological force of persuasion that affects men's conduct and moves them to action.

There are many good books on public speaking in the local public library where the dentist can learn about motivating forces, suggestion, and crowd psychology. It can be learned how to render groups suggestible and of holding and securing their attention.

### Overcome Fear

Some people have a great fear when they get up before an audience. Simply by learning to relax in front of an audience will often help overcome this. Stand slowly and naturally erect with the entire body relaxed. If a person is inclined to stiffen, he can begin relaxing before he stands by pushing his hips back against the chair to give the abdominal muscles a chance to relax. Take at least one deep breath before getting up. Deep breathing gives the body the needed oxygen. Often the reason a beginning speaker stutters and appears ill at ease is because when he gets up to talk, his lungs are nearly empty. A deep breath of air fills the lungs and brings the body erect. New energy surges throughout the body. In the second or two while this is being done, the speaker is given time to look out over the audience and when he begins to speak there is enough air in his lungs to allow his voice to come out full and strong.

Another way to eliminate fear when confronting crowds is for the speaker to forget he is talking to a large group. Most people are perfectly calm when speaking to one or two persons, but when facing hundreds they freeze up and are unable to think. If a beginner will look out over the audience and select one kind, sympathetic face in the center rear and talk loud enough for this person to hear, he will soon forget the rest of the crowd. Like the billboard poster in which the eyes follow you from whatever angle you look at it, so will the speaker's eyes appear to be looking directly at everyone in the room if he keeps them steadily on this one individual straight in front of him. Likewise a speaker's voice will be heard best by the majority if it is beamed directly at the back center of the room. A speaker who turns his head from side to side loses half his audience at each turn.

Whether speaking in or out of the office, a dentist should have his words well thought out in advance. Practice in public and private speaking help to perfect the speaking voice and the method of presentation. However, preparation of ideas ahead of time gives a speaker ease and grace brought on by the confidence that he has something to say and has now been given the opportunity to say it.

The confidence gained in speaking before large public audiences will aid the dentist when he is speaking before a patient in his office. This confidence is often that potent "something extra" that steps a mediocre practice up to a truly successful one.

P.O. Box 3426
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take over some of their time-consuming office detail.

This plan proved mutually satisfying and brought about a serious discussion of a partnership. This, too, was followed through, after they converted their working quarters into a compact unit that included two separate operating rooms. They each continue to serve many of the same patients as in the past, although the younger of the two has taken on an increasing number of young children and teen-agers. The "walk-in" patients are assigned to whichever dentist will be available first.

While this partnership came about without too much preplanning, the work of the office assistant has been given careful study. The dentists are aware that neither one of them could afford to be demanding in asking for the girl's time, so they have divided her activities. One week she gives prior attention each morning to the needs of one of the partners, her afternoons to the other dentist. The following week her daily schedule is reversed. In the event of some unexpected development, she simply breaks her routine until the immediate need is satisfied. The dentists in this partnership are sufficiently flexible not to permit such incidents to disturb their relationships.

There is unselfishness underlying most partnerships. Each party expects, and is entitled to, advantages not enjoyed previously. Otherwise there would be no reason for the union. For instance, in an eastern resort town a young man has formed a partnership with a veteran practitioner. To the twenty-seven-year-old this has proved a satisfying way of earning an income while becoming better known in the community. The older practitioner benefits by feeling free to "go fishing" a little more often than was possible when he was carrying the full responsibility of his established practice.

Probably the conditions that prompt and bind a dental partnership differ greatly from those in commercial fields, but in one way they are identical. Human beings are involved. It is because of this fact and the friendliness and apparent understanding that precedes such plans that the final decision should be spelled out in black and white by a legal expert. When reduced to this form, the whole idea may not seem as attractive as before, but it is better to come to this realization early, rather than later when a "divorce" may be costly and embarrassing.

413 Custer Avenue
Glen Olden, Pa.

"GOODY! WE'LL GET NO MORE BILLS FROM OUR DENTIST. THIS ONE SAYS 'FINAL NOTICE!' "

# THE DENTIST ADDS A PARTNER

By C. SHIELDS

A dentist in a central city professional building recently remodelled his working quarters to provide space for a second dentist to operate across a common reception room. When asked about the "partnership," the practitioner hurried to explain that he and the new dentist each has his own practice and they intended to continue operating independently. "But," he added, "I thought it would be stimulating to have another professional man within 'talking distance' when both of us have a moment or two between patients."

Of course, financial benefits will also result from this arrangement since the two will now share office rent that once bit deeply into one man's income. And the now-and-then occasions for just small talk, or the serious discussion of a dental problem, should also return professional dividends.

### A Trio

A partnership that involved a larger financial contribution has been entered into by a dentist in general practice. He and two dental specialists purchased a suburban home adjacent to a business section and converted the ground floor into three operating rooms with a reception room which they all share. The second floor has been made into an apartment and the rent from this is applied to maintenance costs and to lowering the small mortgage on the property.

The dentist in general practice believes that this arrangement has fortified his practice by placing close at hand the experience and skills of the specialists. When he refers someone to an associate across the hall, the patient's time is saved and it is possible for him to escort the man or woman to the specialist and explain personally that individual's needs. In his opinion, this minimizes the possibility of misunderstanding that sometimes follows referrals and also helps him maintain essential dentist-patient relationship.

While this partnership is entirely financial, it does embody this important feature. The three men do not in any way compete one with the other, but instead each offers a distinctive service that complements the professional atmosphere of their "dental headquarters."

### Importance of Personalities

Experts in setting up legal-tight partnerships, or the less formal association of like interests, insist that some considerations cannot be covered by a written agreement. They refer in particular to the importance of the personalities of those involved. This is more likely to breed conflict than any other factor, including finances. As one man pointed out, the necessary daily association month after month is just one step away from marriage.

This was realized by two brothers, both dentists, who recognized the advantages they would enjoy from setting up their offices under one roof. Each would have been interested in the continued success of the other's practice. But they were intelligent enough to recognize that in their non-professional activities there were frequent occasions when each "rubbed the other the wrong way." To purposely create a situation that had explosive possibilities would not be realistic, so they decided to go it alone in separated office locations.

### Another Set-Up

In contrast to the decision of the two brothers, two other dentists, not related except for their professional interests, have formed a partnership quite by accident. For some years these men occupied adjoining offices in a central city building. They became personally acquainted and now and then found occasions to assist one another professionally. At the outset, neither one had an assistant, but during a conversation regarding this the pair decided to employ a qualified young lady to act as receptionist and

Anesthesia in the middle of the nineteenth century.

Copperplate after a painting of Adriaen Brouwer, representing "feeling." Beginning of seventeenth century.

# A CENTURY OF PROGRESS: DENTAL EQUIPMENT

By CURT PROSKAUER, D.M.D.

FINAL INSTALLMENT IN A SERIES

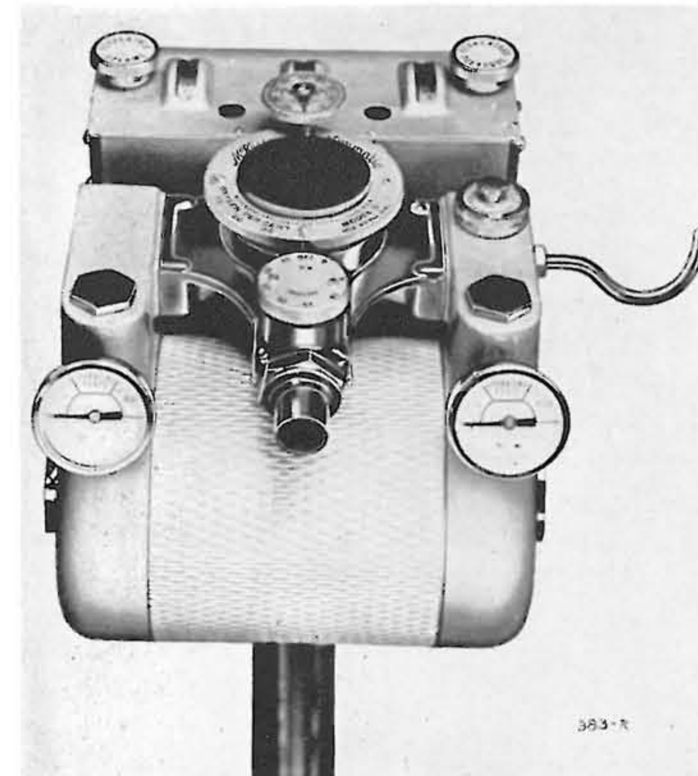
In the seventeenth century the patient had to be bound to his chair during the extraction of a tooth; otherwise the pain would have made him move unexpectedly and hinder the operation, or else he would have used his hands to push away the dentist.

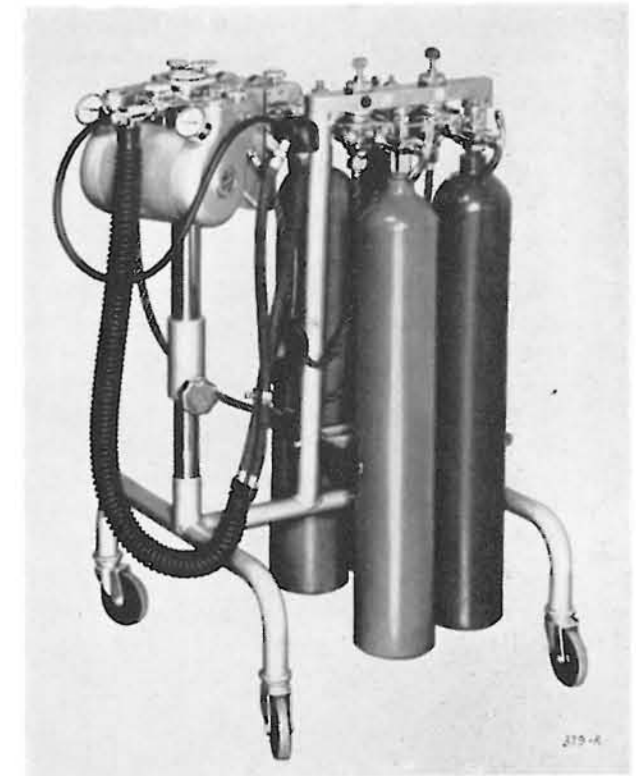
Through the introduction of anesthesia in the eighteen forties, tooth extraction, and even major surgical operations, became painless.

Ether was first administered by the dentist William T. G. Morton at the Massachusetts General Hospital on October 16, 1846. The apparatus he used was much improved during the years that followed, and the whole art and science of anesthesia has been making continuous progress ever since.

720 Washington Avenue
New York 40, N.Y.

Courtesy, McKesson Appliance Co., Toledo, Ohio.





By BLANCHE FEARINGTON

A small boy has a crying fit induced by fear of pain; a young mother spends a year in bed trying to recover from hepatitis; and a grandfather has a fever caused by foreign proteins called pyrogen.

What possible relation could these three events have? All three of them could be caused by a visit to the dentist and could have occurred last year. This year they can be prevented by the use of the first disposable dental needle in history, which is in the first stages of mass production, at a DeLand, Fla., plant.

Freedom from pain, hepatitis, and pyrogen are no small claims for any product, but this disposable dental needle is the tenth in a series of such hypodermic needles, and their manufacturers, who supply the bulk of hypodermic needles to the pharmaceutical industry as well as to hospitals, physicians, and nurses, back up that claim.

Americans will take two billion hypodermic injections in 1959. What's behind this new needle? Countless hours of research and the foresight of a man who noted the success of the pharmaceutical industry in their promotion of disposable devices for intravenous application. In 1946 he started a consulting firm for pharmaceutical houses in Waterbury, Conn., and very soon thereafter turned to the manufacture of disposable hypodermic needles when it became evident that the hypodermic needle was no longer a surgical instrument, but was fast becoming a consumer item with the rapid jump in hypodermic injections. The Florida plant was opened in 1954 and is now comparable to the one in Connecticut.

The researchers found that with the frequency of injections three things were becoming of prime importance: the degree of pain; the danger of cross-infection; and the probability of violent reaction from foreign proteins.

Let's analyze these dangers one at a time, using the new disposable dental needle as an example of how they have been overcome.

First, it is common knowledge that a needle point is sharp for the first application only and thereafter pain is experienced by the dull point of a reusable needle. True, it can be resharpened, but the time and money involved in doing so makes the cost of the needle much higher than that of a needle that can be used once and discarded. In 1940 a leading pharmaceutical house advertised that its needles were good for three thousand injections. Today the big issue is whether to use a needle once or five times. The level of comfort has been proven to be much lower on the fifth use. The lancet point of the new disposable dental needle is so sharp that the so-called trauma damage to tissue is at its very lowest and the healing is much faster. The level of pain is at an absolute minimum. There will never be a dull point because the needle will be used only once.

Secondly, the danger of cross-infection which can cause hepatitis is always present when a needle is used more than once. Bacteria and virus can be killed by saturated steam in an autoclave, provided a needle is clean and the passage not obstructed. Not everyone has an autoclave, and there is no known way to dislodge a piece of bacteria should it settle in the lumen, or passageway, of a needle cannula.

Some might ask, "Why bother with a disposable needle when we have been getting along so well with one that can be resterilized?" Until the middle of the last century, we had to make do with operations performed with unsterilized instruments. Countless people died from them until Lister discovered that infections caused by these instruments were the source of trouble, and pioneered the way to sterilization as the way to safer surgery. Who can say how many serious infections may be eliminated by the use of a sterile needle that will be discarded after one use?

Thirdly, pyrogens can cause high fever and other





### Rx for Moderns

A sedative, sir,
To relieve my condition
Brought on by the haste
and the waste
And the press for success.
Soothe my disposition,
A sedative, sir.

A stimulant, sir,
To rouse my sensations
With ready response to each
beat of the dance.
To surge with great urge,
Pour it out, double rations,
A stimulant, sir.

An opiate, sir,
My frayed constitution,
My weariness needs those
extracts of weeds
That will quieten, then lighten,
Bring on sweet perdition,
An opiate, sir.

Joseph Glazer, D.D.S.

tax-deduction advantage, provided it is properly handled through the Missionary Dentist.

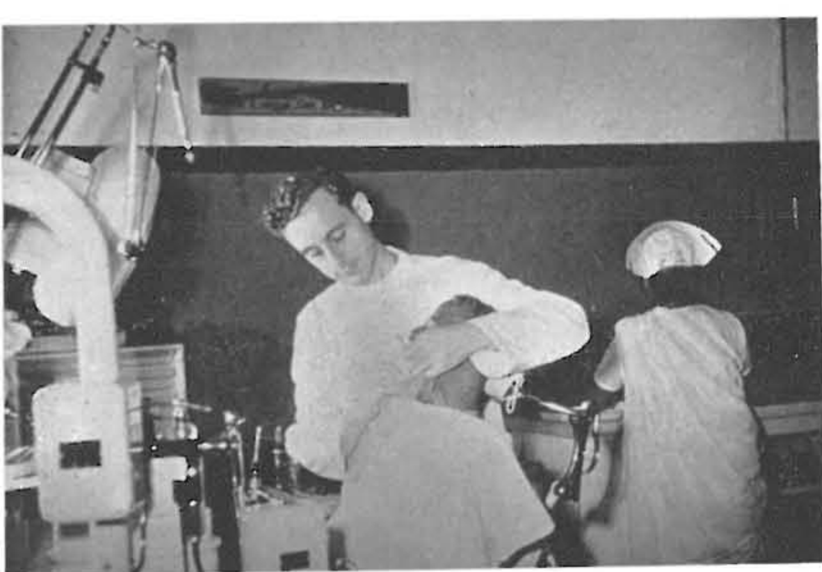
What makes a man want to give up a comfortable way of life to battle the rigorous requirements of missionary work? Doctor Marks says: "It takes Faith to do the Lord's work. So far He has richly supplied all our needs and we feel sure He will continue to do so in the future. 'It is more blessed to give than receive.' We feel we are experiencing some of this blessedness here, because we are 'giving' more than we did in America. We do not make as much money, but we have many compensations that money cannot buy. This is the most satisfying work we have ever done."

"The whole key to missionary work," adds Doctor Chapman, "is to render social service in combination with the Good News of the Gospel. By ministering both to the souls and bodies of men, we seek to direct them in the right spiritual path to attain fellowship with God."

To carry on the program, Missionary Dentist is seeking teams composed of dentists, oral surgeons, dental hygienists, technicians, and others from all parts of the world. There is also a need for *good* used dental equipment that is not outmoded. Before shipping anything to the missions, it must be refurbished. If you have idle equipment that could serve a real purpose on a mission field, give Doctor Chapman a description and let him decide if it is worthwhile to send it on.

If your church or dental organization would be interested in seeing films of these dedicated dentists at work, or if you would like additional information about The Missionary Dentist Program, contact Doctor Vaughn V. Chapman, P.O. Box 7002, Seattle 33, Washington.

9735 S. Vanderpoel Avenue
Chicago 43, Ill.



Doctor John Moody taking care of a patient at the Vellore Medical Center in south India.

ganyika Territory, says, "I want to do all I can as long as I can. Maybe I have not too much time left, so I must work fast."

Like Doctor Lalonde, Doctor F. W. Leug of Florida volunteers for service at his own expense. Doctor Leug recently spent eighteen month in Japan and three more months in Hong Kong. On other trips he served in Haiti and Alaska.

In 1955, Doctor and Mrs. John McInnes of Tucson, Arizona, both in their early fifties, volunteered for two years service in Seoul, Korea. They were instrumental in establishing the dental clinic and providing training for Korean dental internes. Mrs. McInnes kept busy by teaching English in the medical college and nursing school, assisting the hospital dietician and lecturing on dental hygiene.

Some of the present dental mission stations are staffed and equipped through an organization called the Missionary Dentist. The director, Doctor Vaughn V. Chapman, established the first mission in Ecuador. His brother, Doctor A. Zerne Chapman, an internal medicine specialist, works with a missionary team in India.

Doctor Vaughn V. Chapman is an indefatigable, sincere person who believes in getting things done. He works exceedingly hard from his offices in Seattle, Washington, recruiting people for this exacting work. In addition to conducting a general practice, he runs a weekly radio program and a newspaper for the missionaries. Recently, he helped direct the second Missionary Dentist World Conference in Eugene, Oregon.

Doctor Chapman explains that the combination dentist and missionary is not easy to find and all applicants must be thoroughly screened and recommended. Accepted candidates may or may not require additional training, depending on the locality where they will be stationed. Part-time dentists are usually sent to established clinics, where their main work is with other missionaries and their families. Those who will work directly on natives usually learn the language, customs, and morés of the locale.

By dipping into some of Doctor Chapman's mail, you'll get an idea of the scope of this ambitious undertaking.

From Landour, Northern India, Doctor John C. Taylor writes his thanks for a dental chair, supplies, equipment, and a check. Missionary Dentist had the chair overhauled and refinished before shipping it out.

Doctor Wendell L. Sprague in Elat, the French Cameroons, writes: " . . . the instruments you sent were in fine shape. I was especially impressed because they were all re-chromed and sharpened. Some of our instruments are sent by dentists' widows and are often quite worn. The new instruments are already in the cabinet for use by one of our African dental assistants who just returned from a year's study in France."

Doctor Sprague expressed the need for someone who is willing to spend a month or so at his own expense to teach some prosthodontic procedure. "Due to the amount of prosthodontics, we are forced to as much as we can as quickly as possible," he explains. "We are conscious that we lack modern techniques which might improve both our work and our output."

Doctor Chapman explains that a dentist or specialist who wishes to make a trip to the mission field to teach or work for a few months may do so at a

Doctor Wendell Sprague at the Weber Dental Clinic in the French Cameroons.





allergic reactions in a patient. When needles are reused, no checks are being made to establish the count of pyrogen. Before the disposable needles are packaged, they are sterilized according to the preferred method used by the pharmaceutical industry, ethylene oxide, and declared to be non-pyrogenic. This means that the level of dead bacteria is controlled and checked by the biological laboratory, which is supervised by a qualified and experienced microbiologist. They are guaranteed safe for one use.

What is this new needle made of? The tubing is stainless steel; the eyelet retainers are corrosion-resistant aluminum; and the plastic parts are made of polyethylene, which is known to be chemically inert. The cannula is encased in a pink polyethylene cartridge sheath, and after the needle is sterilized. a white plastic cap is heat-sealed to the cartridge, not to be opened until time of use.

The needle cannot be reused because its plastic hub will disintegrate in an autoclave.

Standardization in size contributes to automation in production, therefore reducing the cost. Produced in 25 gauge only the needle is made in two lengths: three-quarters of an inch, and an inch and a half.

Manufacturing advances by the needle industry now make it possible to obtain some types of disposable hypodermic needles for as little as four to six cents per needle, or one-third the cost of a reusable needle. The patient can receive the maximum in safety and comfort for less than the price of a soft drink or a candy bar, and there are few people who wouldn't forego these luxuries for insurance against the pain of a dull needle.

An added feature is the fact that the needle achieves protection against breakage during use in two ways: the plastic hub is designed to prevent concentration of stresses in case of bending the needle; and the tubing is made with a special temper which gives enough stiffness for administration, yet maintains the flexibility necessary to prevent breakage. One can test the needle by bending the cannula in any way and it will not break.

The disposable dental needle has undergone a rigorous testing period of two months at Massachusetts General Hospital, Johns-Hopkins, and The Texas Medical Center and has come through with flying colors. Florida dentists who have used it are very enthusiastic.

Box 34
DeLand, Fla.

"DOCTOR, YOU HAVE TWO CAVITIES AND A DISTRACTION WAITING."

# DENTISTS
# IN THE WORLD'S MISSIONS

By MELVIN M. MEILACH, D.D.S.
and DONA Z. MEILACH

Photos by THE MISSIONARY DENTIST

Starting a practice in the African jungle, the French Cameroons, Haiti, or India probably never crossed your mind when you were looking for adequate office space. But several dentists have set up shop in these isolated areas and are thrilled with the compensations this unique type of practice offers.

Doctor Sandy Marks and his wife, Kitty, a young couple from Wilmington, N.C., arrived in Lubondai in the Belgian Congo on a steaming day in 1948. With a dream and a plan for training Congolese people in dentistry, Doctor Marks initiated a new mission venture with the help of the Southern Presbyterian Church Board of Foreign Missions.

Two days after his arrival, Doctor Marks, assisted by his wife, was kept busy caring for the neglected teeth of missionaries and their families. It was tough at first, with ancient equipment, no electricity, and a native helper who pedaled the foot engine when drilling was necessary.

After getting used to their new environment, the Markses set up their practice at Lake Munkamba, where the mission family gathers. Their dental office eventually was equipped with all the needs of a modern operatory. The dark room was fashioned of mud and sticks covered with a grass roof. Outside, two church benches, placed to catch the shade of an avocado tree, served as a reception room.

In the following months, Doctor Marks functioned mainly for the aid of other missionaries, hospital personnel, and Europeans, some of whom had to travel 800 miles. Without Doctor Marks' services, these people would have had to return to their homelands at great expense of both money and time.

Other than emergencies, Doctor Marks' dream of caring for the Congolese natives was still out of the question. Their rituals of filing and chipping their teeth to points was causing severe mouth disorders in even the young people. In 1952 Doctor and Mrs. J. B. Jung, Jr., arrived from Zachary, La. The two dentists began planning for a native school, a project which consumed all their waking thoughts.

Doctor F. W. Lueg, independent missionary, extracting a Haitian woman's tooth.

Doctor Vaughn Chapman examining an Indian at a mission station in the Ecuadorian jungles.

By 1955 they were ready to ring out the school bells, but they had to recruit native students. It wasn't easy. The Congolese thought of dentistry only in terms of pain. One prospective student asked, "Are new teeth made from people's bones? Do you have to cut the mouth to put plates in it?"

In June 1958 Doctors Marks and Jung gleefully reported six students finished the first three-year course and would serve a two-year internship in their ten-chair dental clinic. Other students in training indicate a tremendous potential for raising the dental hygiene standard for the Congolese.

At the Methodist Mission in Central Congo, Doctor Hugh S. Deale has been the only dentist for more than 300,000 people for the past eight years. To serve as many people as efficiently as possible, he divides his time among the five Methodist Missionary Stations in his area. Carrying a portable dental unit in a Chevrolet station wagon, Doctor Deale spends a month or so at each station, ministering to the aches and pains that have been saved up during the year. He charges the equivalent of twenty cents for extracting or filling a tooth—and gets only a few complaints.

Doctor Fred Scherman working on a Japanese patient at the Tokyo Christian Dental Clinic.

Several dentists work in the missions on a part-time basis. Doctor Walter Newman, who maintains a home and practice in Hawthorne, N.J., first visited the island of Martinique when he was in his late thirties. He was so impressed with the need for the gospel message, as well as social care, that he applied to the Mission Board for service. After some years in Martinique, his wife became ill and they were forced to return to the States. Doctor Newman made trips back alone, serving from six to eighteen months at a time. Circumstances now prevent his returning to Martinique, but he still longs to serve. So, for three months each year, he treats, trains, and preaches in the missions of Haiti. Says Doctor Newman, "The need there is simply terrific. It is hard to believe conditions could be so poor."

Doctor Paul S. Lalonde serves as a lay missionary dentist in Tanganyika Territory, East Africa, for six months of the year. The other six months he conducts his practice in Rochester, N.Y. He spends his free time gathering medical supplies, equipment, and material for the mission. It was providential, believes Doctor Lalonde, that his hobby of traveling brought him in contact with the Sisters Ndareda Catholic Mission while he was on a hunting safari in 1956.

After the safari, Doctor Lalonde revisited the mission and set up a dental clinic, believed to be the first in an African mission hospital. On his later trips, he assisted the sisters in establishing two more clinics. He trained some of them as hygienists, conducting classes and clinics.

Doctor Lalonde, who is believed to be the first United States dentist licensed to practice in Tan-