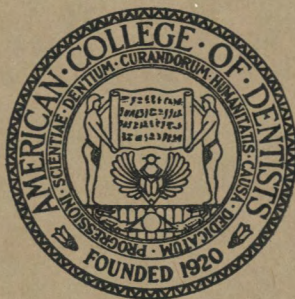


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American College of Dentists

Objects: The American College of Dentists "was established to promote the ideals of the dental profession; to advance the standards of efficiency of dentistry; to stimulate graduate study and effort by dentists; to confer Fellowship in recognition of meritorious achievement, especially in dental science, art, education and literature; and to improve public understanding and appreciation of oral health-service."—*Constitution, Article I.*

Announcements

Next Meeting, Board of Regents: St. Louis, Sept. 5, 1952

Next Convocation: St. Louis, September 7, 1952

Fellowships and awards in dental research. The American College of Dentists, at its annual meeting in 1937 [*J. Am. Col. Den.*, 4, 100; Sept. and 256, Dec., 1937] inaugurated plans to promote research in dentistry. These plans include grants of funds (The William John Gies Fellowships) to applicants, in support of projected investigations; and also the formal recognition, through annual awards (The William John Gies Awards), of distinguished achievement in dental research. A standing committee of the International Association for Dental Research will actively cooperate with the College in the furtherance of these plans. Application for grants in aid of projected researches, and requests for information, may be sent to the Chairman of the Committee on Dental Research of the American College of Dentists, Dr. Albert L. Midgley, 1108 Union Trust Bldg., Providence, R. I. [See "The Gies Dental Research Fellowships and Awards for Achievement in Research," *J. Am. Col. Den.*, 5, 115; 1938, Sept.]

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PRINTING

In me all human knowledge dwells;
The oracle of oracles,
Past, present, future, I reveal,
Or in oblivious silence seal;
What I preserve can perish never—
What I forego is lost forever.
I speak all languages; by me
The deaf may hear, the blind may see,
The dumb converse, the dead of old
Communion with the living hold.
All hands are one beneath my rule,
All nations learners in my school.
Men of all ages, everywhere,
Become contemporaries there.

—JAMES MONTGOMERY, 1776–1854

Editorial

RESPONSIBILITY WITHOUT AUTHORITY

One of the most devastating situations that man can find himself in is to be responsible for an administrative or executive job and not possess the necessary authority to perform the tasks required. In private enterprise such imbalance would quickly manifest itself and competent administrators would either correct the situation or move out of the impossible. In Governmental Agencies, either civil or military, dental personnel have regularly found themselves faced with responsibility without authority.

The American Dental Association has directed a major part of its legislative program toward correcting these inadequacies in the Navy, Army, United States Public Health Service and Veterans Administration. Partial victories have been achieved in the Navy. Tolerance, because of the threat of legislation, has been accorded dental personnel in the Army, United States Public Health Service and Veterans Administration.

The situation in state and local health departments, from a functional point of view, is more important to the dental profession than the National problem, and yet few state dental associations have shown any interest. In several instances, dental programs have recently been reduced in administrative relationships in state health departments.

The American Dental Association is carrying on an effective campaign to have all dental programs and personnel rank with the comparable medical programs and personnel. The fear of legislation, which is generally inflexible, along with education, is helping.

It is high time state dental associations set up a committee or assign to a standing committee the problem of "status" for dental public health programs. In some cases the personnel in question will be unable or unwilling to complain or assist the committee because of fear of reprisals. In no instance should we settle for anything less than complete parity.

HUGO M. KULSTAD

RESPONSIBILITIES OF THE PROFESSIONAL MAN AS A CITIZEN

LESLIE G. MOELLER,¹ *Iowa City*

I should like to begin this discussion of "the responsibilities of the professional man as a citizen" with certain general observations about the changed role of the citizen in these times.

It is no longer possible for an individual to be merely a citizen of a given community, as was the case in colonial days, or even of a nation; today the citizen must take the world view. Even though a national interest may be involved, the citizen must have a larger look at affairs. He cannot avoid it. His life is entangled each day with other nations, with oil in Iran, and with tin in Bolivia, and with rubber in Indo-China, and with four hundred million persons in China, and with a group known as the Politburo in Soviet Russia.

It is not then too much to say that the stakes of American citizenship are indeed great. They are so great, and so important to the individual and the nation, that it seems to me that the professional man has a very definite, working responsibility as a citizen. After all, he is in a sense a person set aside, a person screened, selected, and certified for an important special area of service. Beyond that, by the nature of his calling the professional man has extended and close contact with many of his fellow citizens in circumstances which permit him to discuss and to stimulate general interest in public affairs. The professional man has, then, a specific added opportunity, and responsibility, for raising the standards and for increasing the achievement of society as a whole. He has a responsibility not only for setting and for maintaining high standards for himself, but for working toward such high achievements in the remainder of society as well.

In this pursuit he must have high goals, but he must at the same time beware of the neurosis of perfection, that damning standard which finds a taste of unhappiness in great achievement because it is not the ultimate. He must beware of this neurosis as well because it is so often a stimulus to inaction, for the man who fears he may not achieve perfection may then too often rationalize himself into

¹ Professor and Director of School of Journalism, State University of Iowa—A Dental Day Address.

inactivity. Nor must he demand perfection in others; it is one of the problems of our national life that too many citizens have come to expect infallibility in administrative judgment in top ranking governmental executives. In a world of complexity, the professional man must continually permit the "risk of error."

The professional man must be conscious also that this is not a world of rigidity. He needs only to compare the technological and the social situation of today with fifty years ago, the era before the auto, the radio, the television set, the airplane, to realize that today the only constant is change, and that this rate of change tends to accelerate. His temperament and background will perhaps permit him to adjust, with some planned and constant efforts, to this situation—but he will find it still a lifelong work to urge others to be not impatient with change itself.

The scope of these responsibilities is such that the professional man must work at being a citizen, just as he works in his own field. This will be an effort of study and preparation, of time and trouble.

Again, the state of citizenship is a state of action—it is not an area of quiescent meditation, but of continuing direct contact with the shaping of the raw materials of history.

What, then, are the responsibilities of the professional man as a citizen?

The basic responsibility is that of "being aware." He must realize that something is going on, and then know what is going on. This seems a nominal achievement; actually it is not, for millions of Americans are "not aware." So the professional man then also encourages awareness in all his fellow citizens. We have in the United States a high degree of literacy, in the sense of minimum ability to read and write. We also have a very high degree of social illiteracy. That is, a tremendous number of citizens don't know what's going on—and many of those who know what's going on do not understand what is happening. Dr. George H. Gallup and other researchers have found that on any important national or international issue, about 30 per cent of American adults have a general idea of the problem and are familiar with a few points about it. About 45 per cent of the population has heard of the subject, but knows nothing about it. The remaining quarter has never heard of the matter at all.

It must be admitted that the area of essential knowledge is vast—

and the extent of man's knowledge crowds a constantly receding periphery. But it is also true that, with a little effort, and a minimum of application, the average citizen can be well informed about the fundamentals of the major problems of his world. It is an obligation of the professional man to be so informed, and to urge others, by example and by exhortation, also to be so informed. In this endeavor he will not only be informed on current affairs, but also upon the past. He must know his history; it is true that the past is but prologue, but it may also be said that the generation which does not know history may be condemned to repeat it, an experience not always completely desirable or satisfactory.

In this effort, the information must come from a variety of sources and, because the world is so complex, the professional man must learn to use skillfully a variety of experts, and a variety of sources, and to compare, to evaluate, and to synthesize the information which thus comes to him. In this effort he must not be confused by the fact that he is dealing with distant, unseen, strange affairs; he must remember always that he is dealing with vital events and living human beings, and not with stereotypes, or labels, or words upon a page.

He should remember too that the *world-wide* level of information is his own immediate concern for, in the words of James Sullivan, an early governor of Massachusetts, "where the mass of people are ignorant, poor, and miserable, there is no public opinion excepting what is the offspring of fear."

And in this whole pursuit, at home and abroad, the professional man must make use of the scientific approach, testing, and checking, and revising, and holding nothing unchangeable, and holding all matters subject to new evidence and continual reexamination.

In the acquiring of information, the professional man cannot disregard his obligation to all the processes of formal education. A product, at least in part, of those processes, he has an obligation to gain some understanding of the methods and the problems of education at all levels, and to aid his fellow citizens to the same awareness. This obligation involves not only understanding, but active support; among the beneficiaries of this understanding and support should logically be the institution which gave him his professional training and which must, in the continuing growth of

our civilization and our culture, give training also to many other generations of young practitioners.

In all this effort, his interest should be in the nonprofessional as well as the professional education, realizing that it is the place and duty of educational institutions to provide a background for living functionally and completely, as well as to train for the exercise of vocations and professions.

With the obligation to education, there goes also inseparably an obligation for the development of an adequate cultural pattern.

It is a part of the shame of our time, that in a nation of one hundred and fifty million persons, with greater material wealth per capita than any other nation in history, only two or three or four Americans are able to make even the skimpiest of livings by the sale of serious poetry. Worse still, the majority of Americans, by far, will regard a poet as an impractical visionary, wasting time which he might better devote to "more productive" enterprise. Much the same situation exists with regard to the composers of serious music. The situation is only slightly better in the serious, as contrasted to the popular, theater. And, while a small number of painters and sculptors are currently doing well, the economic and other problems of a rising young artist, even though talented, are tremendous and heart rending.

This situation is no credit to us, and is in sad contrast to that in those eras of history in which men in business and the professions thought it a natural and a logical part of gracious living to freely and willing support all the arts. Today this is seldom done—and a book of poetry may sell 500 copies or, if it does extremely well, perhaps as many as a thousand. May I be specific and suggest that you make an individual contribution to the cause of American culture by buying each year, with some discrimination, and as much interest as you can arouse, a volume of poetry by some living poet?

And I hope you will not stop there, but will extend your interest deeply and vitally to the other arts, as being the foundation to a delightful way of living for you, your family, and your fellows. In any period such an approach would be wise, and in the general interest, but it seems especially so in this era, in which periods of leisure have become increasingly great.

This is, in turn, a reason for suggesting the merits of contemplation. This is too much an age of vitality, and of the widespread feeling that the hour which is not active is an hour which is lost. This is not true. One of the great delights and advantages of childhood, too often lost in maturity, is found in the periods of quiet leisure, the moments for thinking, in which the world comes more clearly into focus, and the tangled elements are arranged in a more orderly skein. I wish for you many of these thoughtful hours, not of daydreaming, but of casual, unpressured contemplation.

The professional man must work for the development and the maintenance of adequate moral, spiritual, and religious standards, not only in private life, but in all phases of society.

It is only a slight exaggeration to say that we live a hot-rod civilization, in which "what's in it for me" is the password, and folding money is the great measuring stick for achievement. In this world of five per centers, the fast buck, and casual relations in the field of sex, there is altogether too much emphasis on "getting by with it." This materialism is not enough; no past society has ever found it enough. We have a great need for active concern for principle, and for moral leadership, if we are to achieve the maturity which alone can assure our national future. We have made pronounced gains in showing our active concern for the welfare of great bodies of underprivileged, here and abroad, and the "hot-rod, fast-buck approach is not typical of many areas of our national life—but we still have far to go.

Professional men must help the world to accept the working principle that money, although delightful, is only one of the compensations of this world. There are other rewards more satisfying, and it is one of our tasks to make this understood.

In this world of morals and working values, the professional man must have a concern for the rights and the freedoms of mankind everywhere. It is a proper part of his study that he should know well these rights and freedoms and the philosophies beneath them.

With Thomas Jefferson, he might well say, "I have sworn upon the altar of God eternal hostility against every form of tyranny over the mind of man."

This is the great and the basic principle, but along with it go other freedoms and rights, freedom of speech, freedom of information, the right to know the actions of government, the right to be considered

innocent until one is proved guilty, the right to a fair trial, and many others.

I have urged full knowledge of these principles of freedom, because, although on the surface they appear so clear cut and so reasonable, the philosophical bases surrounding them tend often to confuse the issues. It is probably accurate to say that true freedom is possible over a long period of time only when there is a clear understanding of the alternatives. For example, today we see a strong possibility of the loss of much freedom because we are apparently almost hysterically afraid of the exercise of certain types of freedom. Our fear of communism has placed us in the paradoxical situation of so much fearing the effect of freedom of thought and of speech that we are attempting to restrict these freedoms in order to protect freedom itself. We are in a sense turning the clock of freedom back to the days before Milton, the great poet and political thinker, who more than 300 years ago urged that we "Let her (Truth) and Falsehood grapple: who ever knew Truth put to the worse in a free and open encounter?"

The professional man may well be watchful of the social thinker who will gladly, in the misuse of the name of freedom, trample on the rights and freedoms of individuals in order to advance the pet cause, usually that of a minority, nearest his heart.

At the same time, the professional man must be aware of the great services performed by minority groups. A certain few such groups are now keeping us well reminded of the abuses to which freedom may be put, and of the manner in which freedom may be twisted to the advantage of minorities whose interest is not the welfare of the group as a whole. In this activity we have a constant warning, to our benefit, of the possible abuses of freedom . . . and of the need to work watchfully always to retain the advantages of freedom.

Again, I must ask the professional man to encourage non-conformity, and to be a bitter foe of the doctrine, all too prevalent, that "you must think as I think." Conformity is the death of progress; the conformist is a prisoner in the strait-jacket of the past. Such conformity can mean the end, slowly but surely, of any dynamic society. It is the non-conformist who forces change, and makes progress.

One of the important responsibilities attached to the exercises of

our rights and our freedoms is the responsibility to take part in government. This includes an awareness of what is happening in government, the active expression of opinion on the conduct of government, and direct participation in the processes of government. Even in such matters as voting, a relatively simple operation, we have a poor record in the United States. Nearly one half of all qualified voters failed to go to the polls in the 1948 presidential election. Probably 40 per cent of all professional men did not vote in that election. To voting should be added the discussion of public affairs, contact with office holders, and activity in that important phase of government known as politics.

Government is normally taken over by persons who are willing to provide the time and to make the effort. Occasionally the result is not entirely satisfactory for the governed. If the professional man wishes to maintain a true government of the people, it is essential that he be among those willing to give some time to the maintenance of that government.

It is equally important to have a world outlook, and a world awareness. Many of the persons in this room have, by the compelling circumstances of our time, achieved a world view, at least in a geographic sense, and certainly many others here will in coming years share that experience. It is important to note that these world-travel decisions have not been and will not be entirely our own—and that in a very real sense these will be “world decisions.”

In such a circumstance we must all accept an informal, undeclared “world citizenship.” We cannot avoid that citizenship; it is now upon us. We are now become a great world power. As a people, we are perhaps thrust too suddenly into this position of power, without having the background which would be most desirable. We have not been world-oriented long enough; it is then important that we now accelerate our orientation.

This means, among other things, surveying our knowledge about the rest of the world. This is no time for us to be provincial, to be informed on and concerned with only the affairs of our own land. We must be aware also of the knowledge which the rest of the world has about us. For example, do we realize that outside of the United States, three out of every four persons have continuing problems of sanitation and of health which to us in the United States would seem both inconceivable and intolerable? Do we realize that today, and

yesterday, and for long days past, over a billion persons on this earth have been hungry? Are we aware of the fact that we here in the United States lack a great many vital natural resources, that our share of known world resources is perhaps declining, that we are far from self-sufficient, and that we must have continuing access to the natural resources of many other strategic parts of the world if we are to survive? Do we understand that millions abroad think of the United States as a land populated by two great classes, the very rich and the very poor—with gangsters everywhere?

In this process of examination, the professional man would do well to do everything possible to discourage any self-complacency about our social advancement, and our general level of achievement, as compared to the rest of the world. Our social achievements are indeed great—but the constitution of the United States was in existence for more than 131 years before women were granted the right to vote, only 31 years ago, and today we continue to have serious problems involving the civil rights of certain minorities, who, even though the situation steadily improves, are often much discriminated against, and certainly at the moment do not have equality. It is not well for us to consider ourselves completely superior to the rest of the world.

In considering the problems of world awareness, the professional man of course cannot overlook the problem of communism. Here he faces the wave of the past, vigorously anxious to appear as the tide of progress. Communism is reaction personified, but we find communists in many areas effectively carrying on the part of the fox in Aesop's fable who, having by accident lost his tail in a trap, went forth to his fellows, urging them to be in fashion by in turn cutting off their own tails. The doctrine of communism deserves the careful study of a professional man, not only because of the need for world awareness, but also, in the words of the military world, because avoidable ignorance of the enemy is an unforgivable fault.

Here the professional man must be conscious clearly of one of the great blind spots of our time—the feeling in far too many quarters that those who study *about* communism, or who teach *about* communism, are ipso facto in favor of communism. The professional man needs to be aware of this feeling not only as it influences his own essential study, but as the feeling prevents or delays essential widespread thoughtful study of communism by others. He ought con-

sciously and openly to work against this feeling, the root of one of our deep weaknesses, for many a citizen who needs to know of communism, and wishes to know of communism, is prevented from gaining this essential knowledge by the hysteria of our times.

The professional man must be well aware also of another great contradiction, to this effect: in general, we seem to have a higher respect, and more consideration, for the man who consistently remains a communist, than we hold for the man who was for a time, however short (and perhaps many years ago), a communist, and who now has seen the error of those ways. In this pattern, what is the incentive for communists to heed our sales talk that they give up this false doctrine—when in effect we appear to have higher regard for those who do not follow our advice?

We have said that communism is indeed reaction personified, rather than the progress incarnate which it represents itself to be, since communism in today's reality represents a return to the doctrine of the nullity of the individual, a doctrine tested and discarded centuries ago in many lands.

In contrast, we in the western world have wrought the true revolution, representing as we do the pattern which brings needed change within the framework of a democratic governmental process, to fit our social system to the changing needs of the day.

As a result, the professional man in the United States has also a responsibility to be informed about this great social system, this pattern of checks and balances and continuing flow and change.

He needs to know, for instance, of the many examples of this dynamic development in a predominant field of social activity, the area of business and industry. Here modern management has taken on the relatively new function of serving as an informal working mediator between the pressures and the demands and the needs and the requirements of the consumer, of the worker, of the stockholder, and of government.

In practice, management is developing new techniques and new methods for observing and balancing the interaction of these powerful forces. If we can refine this pattern, and make it understood in the world, we can make a great contribution to the development of the type of dynamic society which may fill man's needs throughout the world.

We have talked, at some length, about the need for information

and the desirability of the scientific approach, and of the importance of education, and of the contributions which the professional man can make to our culture, and his obligations in the field of moral and spiritual values and in the field of freedom and human rights; we have discussed also government at home, government abroad, the need for world-mindedness, and the importance of knowing the facts about communism and our own social system.

This is a great body of ideas and responsibilities, in a world of endless complexity—and so it is easy to understand why many individuals feel submerged and overwhelmed, and retreat from life with the feeling that they have no great impact upon the world. This is the passive surrender which has too often been the servant of the forces of darkness.

In such a situation, the professional man must be aware of his own importance as an individual, and must aid other individuals to avoid the feeling that "I am only one person; I don't count."

The individual *is* important, and will continue to be important, for good or for evil. The current examples are countless. Many instances are sufficiently spectacular to be recorded in the day-to-day chronicles of our time; thousands of other examples are not so recorded, but are equally important in showing how the individual can "take his stand" and be counted in the cause of righteousness and of progress.

This need for individual participation is so great that there is an obligation upon each professional man to be a participant rather than merely a quiescent bystander, and the need for building a feeling of the worth of the individual is so great that there is an equal obligation upon the professional man to encourage all his fellow citizens to be thus active.

If the professional man, as a citizen, develops a sense of purpose and of direction, is continually better informed, and is active in the world's affairs, he cannot avoid being an increasingly effective factor in society. His efforts, and those of the persons whom he inspires, will help us to build a world which is truly brave and bright. It will not be built easily. It will not be built by a few. It will be built by us all.

AMERICAN COLLEGE OF DENTISTS

TRI-STATE SECTION

ROBERT S. VINSANT, D.D.S.,¹ *Memphis, Tenn.*

INTRODUCTION

The Tri-State Section of the American College of Dentists was organized May 28, 1948. We have had sectional meetings with each of the three State Associations each year with an annual meeting of one day the second Saturday in December. Our Committees are set up to conform to the American College Committees each carrying out the function of the College Committees on a Section level. Every man in the Tri-State Section is assigned to a committee for which he is best suited. These committees are not changed from year to year except on request of a member to be transferred from one committee to another. In this way we have built the interest of the committees each year. In all of our activities we work in very close connection with the American, State and Local Societies. All of our projects are carried out in the name of these Societies rather than the name of the Tri-State Section. In cooperating with organized dentistry we have been able to bring the fundamental principles of the College down to grass-root activities. When we see an interest being developed we cooperate; when there is no interest in these activities of the organization we create it.

Our program for 1951 was developed within the membership of our organization. We used essayists from the members of our Tri-State Section only. You will notice the reports and essays for this year were built on trends in the various fields of dentistry. The reports of the Committees and the papers given by the essayists follow.

¹ Secretary of the Section (Arkansas, Mississippi, and Tennessee).

ADDRESS AND REPORTS OF OFFICERS

The chairman¹

WILLIAM R. WRIGHT, D.D.S., *Jackson, Miss.*

Fellows of the Tri-State Section of the American College of Dentists, I consider it a distinct honor and privilege to bring you greetings from each of the states included in our Section.

In planning this year's program your officers have tried to carry out the spirit and objectives of the College. They did not want to follow the pattern of other groups and promote just another conventional association, but at the same time they felt the importance of having something that would stimulate interest on the part of our membership. With this in mind they selected for this year's program "Trends in Dentistry", with a view of high-lighting certain phases of dental progress.

The prompt and cheerful response of each Fellow who was requested to take a part on the program or a committee assignment has been most gratifying. On behalf of the officers of the Section, I wish to express appreciation to each of them, and especially do I wish to thank our secretary for his whole-hearted cooperation, advice and guidance.

I have been actively engaged in the practice of dentistry through the first half of the twentieth century and privileged to observe dentistry in America and have witnessed its growth from a mechanical profession into one of the great scientific professions. So well have we succeeded that all nations of the world look upon the United States as the standard bearer of dentistry.

At the beginning of the century there were twenty-nine thousand seven hundred and eighty-six dentists in the United States. There were sixty dental schools in existence at the turn of the century. Most of the colleges required only one year of high school training for admission. This was increased gradually until 1924, when one year of work in an academic college was required for entrance. Later this was set at not less than two years requirement in an academic college, and four years of not less than nine months each in dental college.

¹ Presented on December 8, 1951, at the Convocation of the Tri-State Section of the American College of Dentists held in Memphis, Tennessee.

While the afternoon program will reveal and emphasize the technical advancements made by the profession, we feel a justifiable pride in the thorough manner in which the 75,000 dentists have, over the years, worked harmoniously to build and weld together a profession that has the respect and confidence of the public as a great health agency whose standards and ethics are second to no other profession. It cannot be said that dentistry has arrived, but we can say with full confidence that it is well on its way. Much has been done in the basic sciences of biology, chemistry, physiology, pathology and bacteriology. The future of the profession has never been brighter.

The technical phases of dentistry have reached near-perfection. We are now turning our attention to the prevention of dental diseases. We have known for many years that the excessive use of refined sugars and poor prophylaxis on the part of our patients accounts for most of dental decay. To find a means of off-setting the ill effects of these practices through research and practice is one of the immediate objectives of the profession. Fluoridation of domestic water supplies and also the application of sodium fluoride to the teeth of children give substantial promise for the prevention of dental decay.

A RECOMMENDATION

By referring to the last list of Section officers you will observe that the Tri-State Section is the only one that has not combined the offices of secretary and treasurer into one office. To avoid overlapping duties I recommend that the offices be combined and that hereafter the officer be known as secretary-treasurer.

In the early days of the organization of the American College of Dentists there was, no doubt, in the minds of the leaders at that time, a spirit of pioneering in an uncharted sea. But when the chart and compass were placed into the hands of farsighted men of the profession—men of great vision, men of zeal, determination and magnanimity of spirit, the College of to-day has evolved. Setting up machinery for such an organization was none too easy. During the thirty years of its existence many members have contributed largely of their time, their talents and their professional ability to make the College what it is to-day—a dynamic influence in dentistry, a tower of strength to individual members, and a service to the public.

Only in proportion as we, as Fellows, assume our responsibilities

and participate in the activities, keep our ideals and standards of personal and professional life high and above any personal ambition for prestige or favor, can we hope to reach and maintain the basic objectives of the College, namely; the growth and development of the profession and its service to mankind. I therefore urge that you and I renew our vows and pledge anew our allegiance to these objectives, and that we go forward in the future with a greater hope and firmer faith in our great profession.

In closing I bring you this thought by George Washington: "Great people are not affected by each puff of wind that blows ill. Like great ships, they sail serenely on, in calm sea or great tempests."

Vice chairman from Arkansas¹

J. D. JORDAN, D.D.S., *Little Rock, Ark.*

A REPORT

—State Council of Children and Youth: The Arkansas State Dental Association is represented on the Governor of Arkansas State Council of Children and Youth by Dr. M. J. Friedman serving as Vice-Chairman of this Council.

—State Board of Health: The Arkansas State Dental Association is now represented for the first time on the State Board of Health. There are nine members on this board (1 dentist, 1 pharmacist and 7 physicians). Our representative to this board is Dr. Don Hamm of Clarksville.

—Flouridation: Little Rock is the only city in Arkansas that has fluoridation of its city water supply; however, four or five other cities are seriously contemplating this move. Incidentally, we had flouridation in Little Rock for one month before it was announced to the public. There were no complaints and we feel that this is a good procedure.

—Dental Education: As you know, Arkansas does not have a dental school, but I am proud to report to you that we have 101 Arkansas students who are studying dentistry in the various dental schools.

—Increase in the profession: This last year the Arkansas State Board of Dental Examiners had 41 applicants taking the State

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Board with 4 failing. The past several years has shown a decided increase in the number of applicants taking the State Board, which has materially increased the number of dentists practicing dentistry in Arkansas today. We have approximately 500 dentists in Arkansas.

—Patient Education: The Arkansas State Dental Association requested the Arkansas State Board of Health to purchase the records made by the Southern California State Dental Association. This was done and these records are now being broadcast by the various radio stations in Arkansas.

—New members: There have been six new members added to the College during the past year and I am happy to report that they all are of the highest type men. Their names are as follows:

H. M. Flickinger—*Siloam Springs*

Roy Golden—*Arkadelphia*

Claude Jernigan—*Rector*

Douglas Lewis—*McGehee*

Dr. Rowe Smith—*Texarkana*

Vice chairman from Tennessee

C. J. SPEAS, D.D.S.,¹ *Oak Ridge, Tenn.*

First, it gives me great pleasure to have an opportunity to express for the Fellows of the College from Tennessee, their deepest appreciation to Dr. Wright, our Chairman, for the unselfishness, hard work, thoughtfulness and proficiency he has displayed in guiding us through another successful year in the Tri-State Section of The American College of Dentists. We know, Dr. Wright, that you realize an honor has been bestowed upon you, but what you may not know is that we feel that you have earned that honor. It is a certainty, too, that the Fellows of the College from Arkansas and your own State of Mississippi concur with us in this feeling. We owe you a debt of gratitude which we know from the benevolence of your character will be fully paid, when we simply say, "We thank you."

Dr. Vinsant, your effort to make this Tri-State Section of the American College of Dentists a reality as well as a fruitful organization deserves recognition. There are perhaps few men in this group who have not in some way availed themselves of your council. To

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answer them as you have requires that you play the role of diplomat, friend, and a walking encyclopedia of information. You have had patients and tolerance which is indescribable. Each man feels this although each may not feel the *need* as I do now, to express it. As Vice President from this state for this year it is also my prerogative at this time to express to you the feeling of pride we have, that you are from Tennessee. We are proud of you!

Many men aspire to be like those two men who have just been rightfully commended. Many aspiring men are already members of the College and many more are not. No man has achieved greatness without error. Let us not be prone to judge men wholly on error but commend them for achievement. A fault may often serve a man in good stead or accomplish a worth while deed. Some examples could be sighted for you but for the sake of brevity, we'll dispense with that, and ask only that each of you think open-mindedly of the achievements of your fellowman before you deny him advancement.

This year *one* man from Tennessee was taken into the College. Does it seem possible that he was the only one who deserved the recognition of this group? So many men who have integrity, vigor and the will-to-do are in our professional ranks that we certainly should see fit to admit more than one man per year, it seems. There is no place for politics in this organization if that is the answer. There is no place for prejudice here, or hatred or jealousy. Politics is fun in the state society perhaps or maybe it can be fun even in the A.D.A. but when such tactics creep into an organization such as this it ceases to be fun, or funny. The honesty, integrity and honor of men in this group is meant to be above reproach. Let it remain so!

Dr. W. B. Brooks of Chattanooga, we welcome you as a new member of the College and sincerely hope that this Tri-State section of the College will be honored by your presence at our annual meetings. During the meeting of the State Dental Society it is my hope that the members of the American College will find it always possible to arrange at least one breakfast meeting. Last year this breakfast meeting was omitted but we hope that will not happen again.

In the Tri-State section we have one other new member, Dr. Rowe Smith of Texarkana, Arkansas. We wish to welcome Dr. Smith and hope that those who are older in this group will make every effort to get to know him and make him feel at home at these meetings.

Each year someone brings up the question of holding this meeting

at another time of year. Each year the pro's and con's are heard and we arrive at the same place. This seems to be the most convenient time of year and this seems to be the most convenient location for the meeting. In discussing this matter with one of the members, he related that his wife has always told him, "You can attend any meeting that you really want to attend and you can find plenty of excuses not to attend any meeting that interferes with something else you might want to do." Women know how to sum up a situation. The finality in that explanation left me speechless. Anyhow I like this time of year for the meeting and always enjoy the meeting too.

Eight members from Tennessee attended the meeting of the American College in Washington this year. Drs. Templeton, Justis, and Vinsant of Memphis, Drs. Underwood, Bowyer and Sharp of Knoxville, Dr. Connell of Chattanooga, and Dr. Sebelius of Nashville.

From the appearance of the program for 1951 and from the attendance we are again enjoying a worth while day here in Memphis. As a member from Tennessee, may I take this opportunity to say that we are again happy to have the honor of playing host in this fine City to the members from Arkansas and Mississippi.

REPORTS OF COMMITTEES

EDUCATION¹

JAMES T. GINN, D.D.S.², *Memphis, Tenn., Chairman*³

The Committee on Education would like to point out briefly some of the most pressing problems in dental education today. We would like to call your attention to certain phases in dental education which may influence its progress in the future. It is only natural for the problems to become more complex as the responsibilities of the dental profession broadens. Dental education has the capacity to meet the

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² Dean, University of Tennessee College of Dentistry.

³ Other Members of this Committee are, Roy O. Elam, Oren A. Oliver, J. H. Phillips, Marion H. Gray, Estes Blackburn.

problems of the present and future, we have no doubt, as it has so ably met them in the past.

It has been said that education is the foundation of true professional growth, and it enables every generation to hand accumulated knowledge to its successor. Dental education has made an enviable record since its meagre beginning, especially when one realizes the difficulties encountered in its progress. If dental education is to play its proper role in meeting the challenge of current opportunities and responsibilities in dental health service, it must be re-evaluated. One of the most glaring weaknesses in dental education is the inadequate preparation of dental teachers for teaching. With too few exceptions dental teachers have had no special training. Dentistry is not alone in this problem. However, recognition of this fact does not lessen our responsibilities. There are several vacancies existing in every school in the country, and little prospect of these positions being filled by trained personnel.

As Lyons (1) pointed out, "In the early years of formal dental education in this country, teaching in dentistry concerned itself mainly with technics. American dentistry became renowned for its technical excellence. In more recent years, as dentistry has taken its rightful place in the broad field of the health services, the biological sciences have been given increasing emphasis. This is as it should be. The broader scope of dental care and the education of dentists for this broader service increased the complexities of dental education. The need for teachers more adequately versed in the biologic sciences as well as skilled in technics became obvious. Dental educators with these qualifications are not yet numerous enough to meet the current demands for this type of instruction. As a matter of fact, such broadly grounded dental teachers are still distinctly few in number.

"To complicate the problem still more, dentistry's horizon is again being broadened, in consonance with the broadening horizons of all the health services. . . . The immediate future, therefore, demands dental teachers who are not only well educated in the biologic sciences and skillful in the technics but also possessed of broad knowledge in the social sciences and in teaching methods. A goodly number of such dental teachers are necessary if dentistry is to meet the challenge of the day and of the near future with the success that will preserve, for us and for the public, many of the principles of health

care which we hold dear and essential to democratic life. We should immediately set ourselves to the task of preparing an adequate number of superiorly educated and trained dental teachers. . . .”

It is the opinion of leaders in dental education that more attention should be directed towards the recruitment of students, not in terms of numbers but in the quality of the applicants. It would be desirable for the education of the dentist to begin upon his entrance to high school. It usually begins upon the entrance of the student in the liberal arts college where the prospective dental student may attain the academic requirements for admission to a school of dentistry. Certain pre-dental requirements have been established by the Council on Dental Education. These include a rather heavy proportion of the sciences of biology, chemistry and physics. The logic of these requirements as prerequisites to courses in the sciences found in the dental curriculum is sound enough for wide acceptance. A question may be raised as to the emphasis on these requirements over that given to the humanities and social sciences. In the ever-broadening progress of dentistry and dental education more attention should be directed towards the humanities.

Though the dentist serves the community as a highly specialized professional man, his chief obligation to society is to serve as a useful citizen in the community in which he lives. Therefore, the dentist should not only be trained to render dental service but should also be trained as a citizen. The refining and polishing influences of courses in the humanities would make for a better dentist and a more useful citizen.

Every teacher has often marveled at the ability of the dental student and his ingenuity at butchering the English language. This is not unique among students in dentistry, for it is common among students in other phases of technical education. More attention is paid to the presence of facts and figures than to the manner in which the fact is stated. Required courses in the humanities might aid in this situation and more of them should be placed in the pre-dental curriculum.

Dental education is rapidly expanding and improving its graduate and postgraduate programs to meet the ever increasing need for more adequately trained personnel in specialized fields. An important phase of helping the general practitioner in his daily tasks may be found in what is commonly referred to as a program of continuing

education. In this connection, many of the dental schools are offering short refresher courses for practitioners in greater number and wider scope. These courses materially help the dentists to accept and discharge their responsibilities in dental health service.

Plans are being formulated in the College of Dentistry to offer short courses to the practitioner in various branches of dentistry. These courses will begin this month in Orthodontics and our plans are to offer short courses in Pedodontics in January. Thus far, we have not offered courses in the use of the "Airbrasive" machine. From the best available information it appears that this machine has not proven as practical as had been anticipated, and for that reason many dentists have lost interest in the procedure. The University of Tennessee College of Dentistry has not received one application for the course during the past six months. It has been our opinion all along that it was unwise to offer a course in the use of the "Airbrasive" machine until more is known about it; its effects upon the oral tissues; its effects upon the operator, and its practical application in dentistry. It was our opinion that it would not improve dental service, either in quality or quantity, but might possibly retard the progress of dentistry if universally adopted.

In conclusion, it might be emphasized "that dental education will meet its opportunities and responsibilities of the present and future there can be no doubt. The history of dental education and the dedication of those currently engaged in dental education gives assurances for the future (2)."

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HOSPITAL DENTAL SERVICE¹

L. C. TEMPLETON, D.D.S., *Memphis, Tenn., Chairman*²

The Committee on Hospital Dental Service is making its report to conform with the subject of our Program.

¹ Presented on December 8, 1951, at the Convocation of the Tri-State Section of the American College of Dentists held in Memphis, Tennessee.

² Other Members of this Committee are, H. M. Underwood, J. F. Blackemore, W. R. Hunt and G. A. McCarty.

We are glad to report that in the *trend* of Hospital Dental Service we can see evidence of progress on a Local, State and National level. It is evident that the dentists themselves are making every effort to see that the new hospitals are providing space and equipment for some dental service. There are many of the older hospitals throughout the Tri-States that are increasing their space and are giving no consideration to Dental Service. Your Committee recommends that we all try to see that space and equipment are provided in these additions.

We want to call to your attention that in many localities where new hospitals are being built and where drives are being conducted for hospital funds that the dentists are being squeezed for donations, and no consideration being given to the service we could render in the hospitals, and no space or equipment provided. There are a few hospitals which reluctantly set aside a room. Then want the dentists to equip it. These conditions exist in our own section and we should ever be on the alert in combating such.

The Dental schools throughout the country are helping in places that are now available. We believe this is bringing about better Medico-Dental relationship. The Committee wishes to call to your attention the trend of general anesthesia in dentistry. There are many who are thinking now that unless something is done that general anesthesia will not be given by the dentist for too many years to come.

Dentistry has always taken a leading part in the field of anesthesia and the dentist should not fail to continue to develop and maintain this position. Dental schools should provide more intensive training in the field of general anesthesia. This is a very vital part of our profession and needs the cooperation and thinking of all the profession.

JOURNALISM¹

E. JEFF JUSTIS, D.D.S., *Memphis, Tenn., Chairman*²

Your Committee on Journalism felt that it would not be amiss if they included in the report on Journalism the history and achievements of the Journals in the Tri-States.

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² Other Members of this Committee are, G. C. Jernigan, and J. C. Boswell.

Journal of the Mississippi State Dental Association. The Journal of the Mississippi State Dental Association dates back some 35 years. At that time it was published only once a year and was actually a work for work account of the proceedings of the annual meeting. This was sent out to all members.

The Journal has had an intermittent life and the names of the past Editors are not available. In 1942 Dr. Fayette Williams became editor and it was published four times a year for 8 years. It was a well edited Journal carrying articles relating to dentistry and items of state-wide interest. Dr. D. C. Easley edited the Journal for the last 2 years, resigning when he was called back into service. It was improved with each issue and it is regrettable that its publication was discontinued in 1950.

We sincerely hope that the officers of the Mississippi State Dental Association will resume its publication in the not too distant future.

Arkansas State Dental Journal. The first issue of the Arkansas State Dental Journal was published in 1930. Dr. Irvin M. Sternberger of Ft. Smith, who served more than a third of a century in some official capacity of the Arkansas State Dental Association, was its founder.

The Journal was first called "Dent Ark" as it was an independent Journal. It did not take the dentists of Arkansas long to see the need of an official publication and at the annual convention in June 1930 the Association voted unanimously to make the "Dent Ark" their official organ, the name being changed to Arkansas Dental Journal.

Dr. Sternberger was Editor until 1936 when Dr. C. H. Koch of Little Rock was elected to take his place. Dr. Fred Woods of Little Rock was elected Editor in 1937 and served for 10 years. Under his guidance the contents of the Journal continued to improve.

In 1947 Dr. H. O. Weatherly of Conway was elected Editor. The picture of the state capitol on the front cover page was his inspiration. Other improvements were made in the publication.

Dr. G. C. Jernigan of Rector, Arkansas was elected Editor in 1950 and is serving in that capacity at the present time. Under his editorship the Journal continues to be improved and ranks at the top with other dental journals.

The Journal of the Tennessee State Dental Association. The Journal of the Tennessee State Dental Association was first published 31 years ago in January, 1920. We do not have the information concern-

ing the early Editors. We do know that Dr. Joe Minor of Nashville served as Editor Pro tem in 1924.

Dr. Claude R. Wood of Knoxville served as Editor from 1925 to 1936. Although the Journal was having a hard time existing it improved not only in its editorial content but the income derived from advertising increased.

Dr. Glen A. Bibee of Fountain City was elected Editor in 1936 and served until 1948. During his 12 years Dr. Bibee made substantial improvements in the cover design and general type of printing. The exchange and subscription lists were increased. Due to the increased circulation, advertising increased, even though only advertising which bore the seal of acceptance of the Council on Therapeutics of the American Dental Association was accepted. Dr. Bibee increased the size of the Journal as well as its financial reserve.

Dr. O. M. Jamieson was elected Editor in 1948 and served until 1951. The Journal continued to improve and two issues a year was used for the Annual Seminar and the Workshop.

Dr. Jamieson wrote many pertinent editorials which made the Journal entertaining as well as educational.

Dr. Charles C. Chumbley of Nashville was elected Editor in 1951 and has brought about remarkable change in the outside cover page and size of the Journal. Although Dr. Chumbley has only published two issues a marked change in the contents and printing style has been noted. The October issue was the largest Journal ever printed and carried more advertising than any previous Journal.

Dr. Chumbley has standardized his table of contents which will make it easier for reference in future issues. He has enlarged upon the past aims and ideals of our publication making it one of the outstanding publications in the nation.

Dr. Harry B. Hambly, Jr., Chairman of the Committee on Journalism of the American College of Dentists had the following to report:

"We are delighted to report, that January 1951 was the last issue of a certain trade magazine, to run the stories of certain dental colleges. The colleges no doubt awakened to the fact that they were being 'taken in', by this type of publication."

Continued vigilance, and encouragement of the younger generation of the profession in our Journalistic affairs, is our best hope for better dental publications.

MEDICO-DENTAL RELATIONS¹

C. J. SPEAS, D.D.S., *Oak Ridge, Tenn., Chairman*²

This committee has, as an objective, the task of stimulating a better relationship between the two professions—Medicine and Dentistry. This is not altogether an easy task, but neither is it an impossible one. It is an easier job in 1951 than it was in 1925.

It is imperative that we take note however, of the fact "that all of the initial accomplishments so far have been the result of leadership on the part of individuals." To further clarify this statement—"Initial accomplishments do not have their origin, usually, in a large organization such as the American Dental Association or the American Medical Association. The American College of Dentists is a smaller group and this Tri-State section is a still smaller component of the College. This committee brings the group down to a membership of five and out of these five members one man last year stimulated enough local interest of a medico-dental nature so that for the first time in the city of Jackson, Tennessee, the medical and dental societies of that locality met jointly and provided a program of mutual interest to the physician and the dentist. Since the man who stimulated the interest which resulted in this initial joint meeting is a member of this committee, we as a committee, wish to make this accomplishment a matter of permanent record by including not only this information, but also the man's name—Dr. W. R. Levy of Jackson, Tenn.

"From little acorns, great oaks grow!" In a report from a committee such as this one, which report was read this year during the A.D.A. meeting before American College of Dentists, we find these words penned by a Fellow in the College from Rhode Island, quote:

"In the further development of the medical-dental relations, there is urgent need for correlations in understanding and cooperation, without impairment of the organization or functions of either profession. The organization of dental departments in hospitals is an outstanding favorable condition in this relation. The increasing improvement in the cooperation of medical and dental schools also

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² Other Members of this Committee are Harry M. Underwood, M. H. Gray, W. R. Levy and Lew J. Smith.

accords with this need. In these correlations, and in many others, it is gratifying to note that unemotional coordination without psychological domination or subordination prevails.

The creation of a joint medical-dental committee, with representatives from the American Medical Association and the American Dental Association operating at a national level in education and practice, would eventually preclude all emotional irritations that tend to retard natural and non-political evolution of the ideal of medical-dental relations.

The accomplishments in Rhode Island of a joint committee, operating at a state level, has proved already that such a committee is essential for the growth of medical-dental relations, and could provide acceptable leadership for each profession. It could effectually present simultaneously persuasive appeals and plans to both professions. For instance, a joint committee could prepare, for simultaneous publication in medical and dental journals, a well organized series of statements that would successively point the way to related constructive procedures in medical-dental relations in each profession. Failure to make full use of medical and dental journals is one of the weaknesses of former activities. Actions by the Research Committee of the College and other organizations, pursuant and openly responsive to proposals by a joint committee of the American Medical Association and the American Dental Association, would have a stimulative influence that dentists and physicians would neither ignore nor misinterpret." (Unquote)

Here is a man—an individual—who is thinking in terms of small groups which can stimulate larger and larger groups until we finally are able to properly stimulate our national representative bodies, the A.M.A. and the A.D.A., to organize themselves jointly for the common good of both, without the impairment of function of either group or subordination or domination by either group.

While we are no doubt a long way from a joint meeting of the physicians and dentists on a *national level* and while we are a long way from joint committees on a national level which would give impetus to the solution of local medico-dental problems at least we are thinking and leading in that direction.

All over the country hospitals are being built today with provisions for the dentist. This is even true in the new hospitals in the smaller towns. On a national scale through federal grants-in-aid for these

hospitals, the local dental groups have found it quite easy to have dental facilities provided, since the stimulus for them accompanies the money. The American Dental Association has formulated standards for dental internships and residencies which further bolster the dental prestige necessary to provide the man-power to operate the dental facility in these hospitals.

We also need unity in our action on a local level within our own profession. This is sometimes lacking. Blind, petty political blocking of worth while activity, occurs far too often. This is beneath the dignity and to the detriment of each of us, especially in this College.

Your committee wishes to make a plea to each of you in behalf of wise individual thinking and activity. Heed *political* loyalty only after wisdom and justice have been exercised.

Whether we admit it or not, we are now again engaged in war. Our ranks in the dental profession are again being depleted. There are not enough of us in the dental profession to even shake hands with the people in these United States, let alone do all the dentistry they need. We need an ally! Medicine needs an ally! Let each of us do his part to bring these two groups ever closer and closer together. Let each man do this in his own way—*as an individual*—so that we *can* become *strong* on a combined national level.

ORAL SURGERY¹

WALTON M. SHANNON, D.D.S., *Jackson, Miss., Chairman*²

The Oral Surgery Committee has not been too active during the year. Your Chairman has written twice to the Chairman of the Oral Surgery Committee of the College, as to the objectives of the College, however I have not received a reply.

In Mississippi and Arkansas several conferences have been held with Insurance Companies writing Hospitalization and Surgical benefits. The idea was to make it possible for patients to be admitted to a Hospital, by a dentist. In the past some of the Insurance Companies would not pay unless the patient was admitted by a medical doctor. Now in Mississippi a dentist that is on the staff of a recognized Hospital may admit patients, and the patient will receive the same benefits, as if they were admitted by a medical doctor.

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² Other Members of this Committee are J. J. Ogden, J. D. Jordan and R. P. Abbott.

Your Committee wishes to stress one very important fact and that is: That if the dental profession is to be recognized by the medical profession, they must be qualified by training and experience to assume their responsibility while working in the Hospital and when in consultation with the physician. The progress in dental Oral Surgery has kept pace with all of the other branches of dentistry. With the advent of anesthesia, a more skillful technique of removal of teeth was perfected, and more elaborate surgical procedures were instituted, and as these procedures became more and more extensive more infections were encountered. Many different methods of aeseptis were tried, but the greatest step forward was made when chemotherapy was begun. I dare say the majority of the men present to-day can remember when the patient with cellulitis, osteomyelitis and even Ludwig's Angina, not to mention many other then common conditions, was the every day occurrence instead of the rarity that it is to-day. This, of course, is almost entirely due to the institution of antibiotics.

When the sulfonamides were first placed on the market the occurrence of infections of dental origin was decreased, and the infections that did occur were controlled much better. We then thought that this was miraculous and it was at the time. However, to-day the antibiotics which are at our disposal are far more effective.

I will discuss briefly the three most commonly used today in the treatment of dental infections. Penicillin is the most widely used antibiotic agent. Penicillin is designated alphabetically as F.G.K.O. and X. Penicillin G. is most generally used in medicine and surgery. There is no standard therapeutic dosage of penicillin because there is no standard set of circumstances which require its use. The dentist should know the characteristics of the various preparations. Some may suppose that one preparation containing 600,000 units of procaine penicillin per millimeter is twice as effective as another containing 300,000 units. Of course, this is entirely dependent on the depot supply—that is, how long the blood level is maintained, and usually this is twenty-four, forty-eight or ninety-six hours. If you wish a high blood level, use the one with the shortest depot supply. Everyone using penicillin should know the unfavorable results that may attend the use of penicillin, these usually occur in about five per cent of the cases.

One of the relatively new antibiotics is aureomycin. An advantage

of this is that it may be given by mouth. It is effective on both gram-negative and gram-positive bacteria. The dosage is almost standardized: that is, three capsules (750 mg.) every six hours to adults; two capsules (500 mg.) every six hours for children. The cost of aureomycin has been reduced greatly and is becoming more widely used. It is very helpful in treating streptococcic and staphylococcic infections that are resistant to penicillin.

Terramycin is one of the most effective and most universally used antibiotics in the treatment of dental infections. The dosage is the same as aureomycin. Terramycin does not produce untoward reactions except rarely minor gastrointestinal irritation evidenced by nausea. However, this is less than with aureomycin. Intensive clinical research is now being undertaken on this drug. In my hands it has been as effective as penicillin and has the advantage that it may be given by mouth and the side effects, when they did occur, have been very minor.

Most infections that develop in the oral cavity will respond to one or a combination of the drugs that I have mentioned. Of course, the treatment of dental infections is not as simple as giving antibiotics. The fluid balance, nutrition, and many other important factors must be handled if adequate service is to be given. Antibiotics are agents which may be used in the treatment of dental infections which are present or which develop in patients under our care. The responsibility rests with the dentist to use these drugs properly where indicated.

PREVENTIVE SERVICE¹

CARL L. SEBELIUS, D.D.S., *Nashville, Tenn., Chairman*²

It was thought advisable by the committee members to deal rather specifically in this report with recent developments in the field of water fluoridation and certain complicating factors which will have to be overcome before water fluoridation in the tri-state area can become a routine procedure.

As you may remember in last year's report, the committee suggested and the group accepted the recommendation that active sup-

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² Other Members of this Committee are W. R. Wright, and E. M. Blackburn.

port be given to the resolution adopted by the House of Delegates of the American Dental Association at Atlantic City in November, 1950, which recommended that under certain conditions municipal water supplies be fluoridated. In the summary of that committee report, it was stated that it would seem that fluorides have a definite place in preventive dental practice, through the controlled fluoridation of public waters, as well as by the topical application method.

During the past year, the above prediction has become a beginning reality since the use of fluorides has become a definite part of the dental public health movement in the United States and in many foreign countries.

Last year, when we met together there were no communities in Arkansas, Mississippi and Tennessee having a controlled fluoridated water supply. As of November, 1951, there are five communities of the area where people are now drinking fluoridated water.

In November 11, 1949, the Public Health Council of the Tennessee Department of Public Health adopted a policy, procedure and requirements necessary for fluoridation. Similar standards have been adopted by the State Boards of Health in Arkansas and Mississippi. In addition to the standards adopted, the Arkansas State Board of Health adopted a resolution on July 26, 1951, endorsing and recommending fluoridation of public water supplies to aid in the prevention of dental caries.

The State Dental Associations of the tri-state area have approved fluoridation and the following cities and towns now have fluoridated water:

	<i>Arkansas</i>
Little Rock	101,387 population
Jonesboro	11,729 population
	<i>Mississippi</i>
Columbus	13,645 population
	<i>Tennessee</i>
Brownsville	4,012 population
Milan	4,940 population

In Little Rock, fluoridation was underway for a thirty day period before the publicity was released. No complaints were filed during the period or since. There are other cities considering fluoridation in Arkansas. Recently the Fort Smith City Commission took the procedure under advisement for a decision to be made at a later date.

In Mississippi, fluoridation equipment has arrived in Meridian, a city with a population of 41,709, and equipment has been purchased for Forest, a town of 2,875 population. There are other cities and towns now considering fluoridation.

In Tennessee, fluoridation equipment has arrived in Cleveland, a city of 12,445 population, and equipment has been ordered for Germantown, a small town of 397 people. The city commission of Bristol have approved fluoridation and official approval is expected in the near future in the cities of Athens, Lawrenceburg, Nashville, Paris and Springfield.

Now, what are some of the complicating factors. Do you know how many of the municipal water supplies in your state are unapproved and are not immediately eligible to even consider the fluoridation of this water? For instance, in Tennessee there are over two hundred public water supplies with less than ninety of these supplies having an approved supply which meets the standards of the state health department. Similar problems exist in Arkansas and Mississippi. If it is considered even a possibility that practically all of the some 15,000 public water supplies in the United States can be fluoridated during the next five years, it would seem logical to think that dentists themselves are going to have to assist in a campaign for more approved water supplies. Another factor to be considered is the possibility of shortages of equipment and chemicals. This complication will no doubt be overcome in time. Dentists throughout the country have shown a great interest in water fluoridation. More active interest is needed in many places, and the people need to be motivated to accept and demand the partial caries prevention for their children which fluorides provide. The Fourth Annual Workshop of the Tennessee State Dental Association to be held in Nashville on January 19, 1952, will be devoted to a study of many of these complicating factors.

In summary, it is the hope of your Committee on Preventive Service that each fellow will consider himself a Committee of one to do all within his power to influence those who can aid in the promotion of this most worthwhile movement. In words recently used by others, "What are we waiting for."

PROSTHETIC SERVICE¹

J. GUILFORD SHARP, D.D.S., *Knoxville, Tenn., Chairman*²

The Prosthetic Dental Service Committee of the Tri-State Section, American College of Dentists is composed of the following members:—Dr. Douglas Lewis, Ark.; Dr. T. Maxey McCaleb, Tenn.; Dr. J. Guilford Sharp, Chairman, Tenn.

The activities of this committee began by the sending of a questionnaire to all members, relative to an objective for the year. This was accompanied by suggestions from the chairman proposing an objective. The reply indicated that the selected objective be a study of the conditions which may have contributed to the existence of our laboratory problems as they exist today. Basically, it was proposed that a study be made, as follows:

1. Dentists, as they relate to the patient, and/or the laboratory.
2. Patients, as they relate to the dentist, and/or the laboratory.
3. Laboratories, as they relate to the dentist, and/or the patient.
4. Accreditation of the dental laboratory, or what?
5. Related conditions that you consider significant. This includes legislation, subversive activities, and such other activities by individuals or outside groups as constitute contributory causes of a problem.

It was further suggested that the objectives of the Prosthetic Dental Service Committee, American College of Dentists, be considered as further objectives for this committee.

These objectives are as follows:

1. To help maintain the present unified practice of dentistry, and ward off all attempts at establishing sub-level fields in dentistry.
2. To hold the current progress made in our attempts at a solution of the dental prosthetic problem.
3. To distribute the 2000 reprints of the articles in the September 1950 issue of the Journal to key men in the profession, where it will do most good.
4. To keep ever alert and watch the trends, objectives, and the propaganda of the few, but very rabid leaders in the laboratory

¹ Presented on December 8, 1951, at the Convocation of the Tri-State Section of the American College of Dentists held in Memphis, Tennessee.

² Other members of this committee are T. M. McCaleb and Douglas Lewis.

craft, whose objectives if successful, would be subversive to the profession of dentistry.

5. To inform the profession of these subversive attempts to undermine the present cultural pattern of dentistry.

6. To promote a harmonious relationship with the dental laboratories and dental laboratory technicians.

7. To maintain the present approved principle of Accreditation of dental laboratories as long as no better principle has been found.

8. To expand Accreditation to all states. The prosthetic problem is a national problem, and what happens in one state is liable to happen in all states.

During the year several communications have been sent to the members of the committee, and one meeting was held. The chairman has written to the chairmen of the prosthetic dental service committees of the American College of Dentists, the American Dental Association, and the Dental Society of the State of New York; has reviewed the Transactions, and Reports of Committees or Councils, of the American Dental Association for 1939 to 1951; the Journals of the American College of Dentists and the American Dental Association; some reports of the prosthetic committee of the Dental Society of the State of New York; some articles appearing in dental laboratory journals. In addition, has consulted with some dental laboratory owners; and has contacted the chairmen of the state prosthetic dental service committees in the Tri-State area.

The principal problems confronting dentistry-laboratory relationships exist in isolated areas of the United States—principally in the larger metropolitan areas. A few of the major problems found in these places are:—frequent and continued attempts at legislation to license the dental laboratory technicians, legalizing their contact with the public; bootleg dentistry; and defiance of dental laws. Since they exist in some states, they might easily spread into others, and ultimately to our own doorstep. These conditions are not evident in the Tri-State area except in lesser infractions of the dental laws.

From area reports, and from other sources of information, it seems that bootleg dentistry in this area is one of the chief problems. This may be manifested either by the construction of new dentures or removable replacements, or by the repair of cases already in use.

With this as a beginning, would it not be reasonable to presume that this service might also include the performance of simple extractions for their "friends"? Many dentists are responsible, knowingly or otherwise, for the contact of the laboratory with the public by sending patients to the laboratory to expedite delivery of a repair or some other equally inconsequential act. In some instances the laboratory is called upon by dentists to perform services for patients which are illegal unless performed by a licensed dentist.

Generally speaking, the public has come to understand the laboratory as being an auxiliary to the profession, with services to the profession rendered in compliance with directions prescribed by the dentist, and that supervision of the laboratory procedures are the same as though carried out in the private office. This relationship has been misunderstood by some who think the middleman, or dentist, can be eliminated by their contact with the laboratory.

Inferences that excellent dentistry-laboratory relationships exist in this section are indicated by excerpts from reports of state prosthetic dental service committees of this area, as follows:

Dr. Norman A. Grammer, Arkansas, reports:

"The Arkansas State Dental Association enjoys excellent relationships with the dental laboratories and the dental technicians and thus far we have not seen the necessity of licensing or registering laboratories or technicians of this state."

Dr. John H. Allgood, Mississippi, reports:

"Some of the smaller laboratories have folded up during the past two years because they did not have the volume of business to compete with the larger ones. There have been some flagrant violations of the law by smaller laboratories in their struggle for survival but Mississippi's dental laws do not have teeth enough in them for the proper punishment of offenders. This committee Chairman went on record at the last state meeting calling for revision of the dental laws so as to adequately punish the offenders. Apparently our plea fell on deaf ears.

"The laboratories have evidenced no interest in the Laboratory Accreditation plan nor have many dentists. We think it's a good thing but have been unable to get interest by members of the M.D.A.

"I suppose our relations with the laboratories is about what is it in other states, but there had been no effort to improve same."

Dr. Harvey C. Reese, Tennessee, reports:

"Any account of our work during the past year would necessarily

be brief, because we have not done much work. This does not indicate a lack of interest or willingness on the part of our committee; but is, on the other hand, indicative of the fine relations, generally speaking, existing between the Dental Profession and the Laboratory men of our state.

"We as a committee have adopted the attitude of letting well enough alone while at the same time encouraging members of the Laboratory Guild to live and abide by the by-laws and code of ethics of their Guild."

Dentistry in this area is indeed fortunate to have the fine relationships that exist between the profession and the dental laboratories. Dentists are responsible for the existence of the dental laboratory, and should be willing to assist in every possible way to maintain high standards, integrity, ethics, and fair practice of this auxiliary group. The profession must be alert and watch the influence of the few whose objectives if successful, would be subversive to the profession of dentistry.

Believing that the profession is responsible, through inadvertent acts, for many of the minor problems encountered, this committee suggests that further study of the objectives mentioned above be made, and that particular attention be given to the contributory part being taken by the dentist.

RELATIONS¹

C. N. WILLIAMS, D.D.S., *Memphis, Tenn., Chairman*²

Your Relations Committee wishes to submit the following report:

Dentistry has come a long way in the last few years in all phases of our profession, but there remains much to be done—especially on dental relations.

Dentistry is becoming more and more conscious of the fact that we are closely related to every movement that has to do with human beings. We are trying to let the public know that we are accepting that responsibility.

The dentist is charged with the responsibility, treatment and prevention of one of the most prevalent diseases affecting mankind,

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² Other members of the committee are J. G. Ball, N. J. Leonard, H. C. Cooper, Fred Child and E. W. Taylor.

namely, caries, along with many other diseases met less commonly in our daily practice. We are the only persons in society qualified by training and experience to cope with this situation. We have a large social responsibility which cannot be evaded if the profession is to discharge its obligation to the public.

The American College of Dentists are working on a roster of the leading men in our profession who can lend aid to dental societies, lay organizations, luncheon clubs, etc. When these men travel from one part of the country to another they will notify the chairman of this committee who in turn will notify these organizations that if they need the service of such a man that he will be in that area about a given time and can address them on a given subject.

We must use every means at our command to get our story of mouth health across to the public. The manufacturers of automobiles, radios and television do not wait for the public to come to them asking for their product but they advertise them in such attractive ways that the people feel they just can't do without them.

It is not enough to tell our story to the people who visit us in our offices. We must get it to the public at large. I believe the dental profession is awakening to the responsibilities as shown in the increasing numbers of clinics in our public schools, in the Forsythe, Eastman and Guggenheim dental infirmaries—in the appointment of dental interns in our own hospitals, in the work being done by the council of dental therapeutics of the American Dental Association for the protection of the public against worthless and injurious dental preparations and by other agencies such as Bureau of Public Relations of the American Dental Association.

The responsibility is further recognized in the creation of a Dental Corps in the Army and Navy now recognized by the government as essential to the health and efficiency of their personnel.

We must publicize the services which the dental profession can render to help improve the health and extend the life span through cooperation with all other agencies. We should ever strive for better relations between the medical and the dental professions. We should work closer to our dental schools and know what is being taught the dentists of tomorrow. To list all that has been done in the last three or four years along this line in our section would take too much time, but I will hit the high spots of a few:

Many school systems in Tennessee are now excusing students from classes for dental appointments. (In my opinion we dentists should cooperate with the schools by giving as many appointments as possible to students on Saturdays.)

Many school systems have eliminated sweets and beverages from their cafeterias. The most notable of these are Hamilton and Davidson Counties. Topical application has been encouraged by the Workshop and under the supervision of the Health Department 17,000 white children and 5000 negro children received a complete series of treatments. The fluoride team was terminated on June 30, 1951.

The water supply of two Tennessee towns has been fluoridated and many other towns have passed the necessary measures while still others are considering the matter.

The Workshop has contributed materially to interest in dental health by extending its invitations to representatives of other groups.

This year a series of articles (6) was distributed to all newspapers in Tennessee (135) on fluoridation. We know that they were used by several papers, but have no definite report.

Dental clinic opened in Robertson county during National Children's Dental Health Day, 1950.

As a climax to National Children's Dental Health Day, a dental health program was established in Knoxville City Schools in 1950. A fully equipped dental clinic was opened and staffed by private practitioners. Each year articles on dental health are distributed to all newspapers in the State.

Dental Health Exhibits

- a. Dental Health Exhibit at Giles County Fair (1951).
- b. Dental Health Exhibit an annual Tennessee Education Association meeting in Knoxville. (1950)
- c. Dental Health Exhibits at Mid-South Fair. (1950-1951)
- d. Mobile Dental Unit purchased by Shelby County Health Department at the request of the Ninth District Dental Society at which time there was only one dentist employed by the city. At the present time we have four dentists and one dental hygienist.
- e. Sponsored a Dental Booth at the Mid-South Fair. (1950-1951)

Free bite-wing x-rays were made for children, health literature distributed and (1951) approximately 13,000 cups fluorinated water was consumed by visitors. Considerable literature on fluorine distributed and numerous speeches by Dental representatives given by request of Service Club, Civic and other social groups on fluorine.

- f. Considerable Health Literature distributed through schools. Posters, records, and movies through cooperation of City Board of Education.
- g. Dental Health Exhibit at Interstate Fair in Chattanooga. (1951)

Miscellaneous Activities

The publication, "Horace Wells, Dentist," was placed in libraries through the state. (1950)

Central Office for Tennessee State Dental Association opened and full-time staff employed. (1950)

Dental equipment secured for the new hospital in Jackson, Tennessee. (1950)

Dental health programs organized and financed by citizens of Oak Ridge. (1950)

Dental Health Budget raised in Shelby County from \$8000.00 to \$37,000. (1950)

Mobile dental unit purchased for Memphis-Shelby County Health Department. (1950)

Dental survey conducted in Second District. (1951)

Charity Clinic established in Murfreesboro. (1951)

Journals of Tennessee State Dental Association sent to all members of the Pan-Tennessee Dental Association. (Negro) (1951)

Tennessee State Dental Association sent representative to the White House Conference.

RESEARCH¹

FAUSTIN N. WEBER, D.D.S., *Memphis, Tenn., Chairman*²

It is the purpose of the Research Committee of the Tri-State Section of the American College of Dentists to report all dental

¹ Presented on December 8, 1951, at the Convocation of the Tri-State Section of the American College of Dentists held in Memphis, Tennessee.

² Other Members of this Committee are H. M. Flickinger, Carl W. Hoffer, and Russell L. Moore.

research projects now in progress in the states of Tennessee, Arkansas, and Mississippi.

It is possible that some of these research projects are not listed in the following report. If this is so, the Committee would appreciate knowing it, so that the report may be made a complete one.

The five year clinical testing program conducted at the University of Tennessee, Department of Oral Surgery on the usefulness of an extra-oral fixation appliance used in the reduction of fractures of the mandible and in cases of mandibular bone grafts has been concluded. The perfected design of the appliance, indications and contraindications for its use were described recently in a paper presented at Washington, D. C., before the American Society of Oral Surgeons.

Addition of Hydase to local anesthetic solutions for the purpose of increasing their profundity is a clinical research project previously reported that is being continued in the Department of Oral Surgery at the University of Tennessee, College of Dentistry. Preliminary findings in regard to action of Hydase are encouraging.

A clinical testing program that is to continue for the next five years was recently started in the Department of Pedodontics. This program is to determine the possible correlation of findings of Snyder test for caries and D.M.F. rates of children under six years of age.

The value of various surgical, prosthetic, and orthodontic techniques in the rehabilitation of patients who have clefts of the lip and palate is being examined by a group of medical and dental specialists. The group includes three plastic surgeons, one prosthodontist, two orthodontists, two speech therapists, two public health nurses, and necessary auxiliary personnel.

A clinical research project started last year to review and classify all dental roentgenograms taken at the University of Tennessee, College of Dentistry is continuing. The project will reveal the incidence of various normal and pathological conditions of the oral cavity that are revealed roentgenographically.

There is a considerable amount of research in progress in the biological sciences at the University of Tennessee. The Committee has made no effort to list these projects even though some of them may be directly concerned with problems kindred to the field of dentistry.

STUDENT RECRUITMENT¹FRANK P. BOWYER, D.D.S., *Knoxville, Tenn., Chairman*²

This report which the Student Recruitment Committee is submitting is not a complete and final report within itself, but rather a progress report of what we have done and what we hope to do in the future. It is our intention at next year's meeting to submit a complete and detailed report with specific recommendations based on three years of research into the problem.

To obtain our information and work out specific recommendations:

We have been contacting the Deans of the Dental Colleges, particularly in our area. It is our opinion that this is, of course, our best source of reliable assistance.

We are also in contact with the administrative heads of colleges which give pre-dental courses since we realize that from them we can obtain valuable information regarding the problems confronting the pre-dental students.

We are also in the process of contacting a representative group of pre-dental students themselves. We hope to obtain from them some valuable suggestions as to how we in private practice can be of assistance to them through their pre-dental years.

We are also contacting groups of dental students to determine just where and how the private practitioner or a suitable committee might assist them with some of their problems.

Realizing that the responsibilities of the Student Recruitment Committee extend further back than even pre-dental students, the committee has been in contact with administrative heads, teachers, and students at a high school level. It is our opinion that adequate dental school recruitment should start with the freshman and junior high school students for it is at this time that the families of young men are assisting them to decide on a career.

Our information is being obtained by questionnaire and by personal interview. Everyone we have contacted thus far has been most cooperative. Their wonderful spirit of cooperation has convinced us that a Student Recruitment Committee is definitely needed and has unlimited possibilities in serving our profession, our dental colleges,

¹ Presented on December 8, 1951, at the Convocation of the Tri-State Section of the American College of Dentists held in Memphis, Tennessee.

² Other Members of this Committee are J. J. Vaughn and H. E. Hanna.

and the students who will be the dentists of tomorrow. It is our determination to submit next year a very complete and detailed report that will justify the patience you have shown with us through the three year period of accumulating the necessary data for an adequate report.

ADDRESSES

THE GROWTH OF DENTAL EDUCATION

ROY O. ELAM, D.D.S.,¹ *Nashville*

Introduction: The purpose of this paper is to present a summary of the growth that has taken place in dental education in the United States since the first dentist was graduated in this country in 1841. In this paper, attention will be given to the importance of dental education to the profession as a whole and to the responsibilities that dental education has to the field of education in general, to all the professions and to the practicing dentists. The term "dental education" does not have the restricted connotation of the undergraduate study of dentistry but rather dental education has importance to the dental specialist, the graduate and postgraduate dental student, the dental intern and resident and to those in the auxiliary fields of dentistry, i.e., the dental assistant, the dental laboratory technician and the dental hygienist. Furthermore, dental education and those who represent it play an important part in demonstrating to the other professions—particularly the health professions—the care with which the dental profession supervises and directs the educational training programs for the dentists and their auxiliary aids.

Importance of dental education to the profession: Dental education has acquired great stature in the eyes of the educators of the other health professions and in the minds of educators in general. The dental profession can point with considerable pride to the achievements that have been made and the growth that has taken place in a relatively short time. Approximately two-thirds of all the dentists

¹ This and the following seven Addresses were presented, on December 8, 1951, at the Convocation of the Tri-State Section of the American College of Dentists held in Memphis, Tennessee.

who have ever been graduated from a dental school in the United States are still living and a very large proportion of these are still practicing dentistry. These representatives of the various stages in the growth of dental education can discuss with considerable interest the changes that have taken place. About 110 years ago, the dental course was one year in length and no admissions requirements were mentioned. In forty-five years, the course had grown to a two-year program of five months each and in another six years to a three-year course. In the early part of the twentieth century, provision was started for the four-year program with a high school pre dental requirement. As recently as 1935, a four-year course with two years of pre dental college work became a definite requirement. At the present time, the course is still four years in length and while two years of pre dental college work are required only about thirty-eight per cent (38%) of the students now in dental school were admitted with this minimum requirement, all the others having taken considerably more work. In fact, almost as many are now admitted with baccalaureate degrees as are admitted with the minimum entrance requirement.

As indicated by the following chart, it can be observed that the importance of graduate, postgraduate and refresher courses in dental education is great and these courses are being demanded by the practicing dentists. The schools are meeting this demand.

	1949-50	1950-51
number of graduate courses.....	150	174
number of postgraduate courses.....	228	339
number of refresher courses.....	143	180
number of new or potential courses.....	377	523
	<hr/>	<hr/>
total number of courses.....	898	1,216
number of graduate students enrolled.....	282	349
number of postgraduate students enrolled.....	1,138	1,381

Between 1949 and 1950 the number of advanced courses available in the dental schools increased by thirty-five per cent (35%). During this same period, the number of students enrolled in these courses increased about twelve per cent (12%). The increase in the interest of dental graduates to enter dental internships and residencies is additional proof that the graduate dentist looks to dental education for added training and experience in his chosen field. Similarly, the

increased attention being given to the dental specialty boards is an indication of the practicing dentist's interest in advanced training and in research. There are approximately 6,000 hospitals in the United States and of these, nearly 2,000 have established dental departments. In these, there are approximately 400 hospitals having either internship or residency programs, or both. Of these, less than a hundred educational programs have been formally approved.

There are now seven dental specialty boards recognized by the American Dental Association and all of these have had their requirements approved. There are approximately 1,000 diplomates in these seven dental specialty boards, again indicating the interest of the dental profession for advanced and additional education and training.

Developments in dental education: There are now forty-two dental schools in the United States, all of which are participating in the counseling and accreditation program of the Council on Dental Education of the American Dental Association. There have been times in the history of dental education when there were as many as fifty-seven dental schools but even this number of schools did not graduate as many students as are now being graduated by the forty-two schools.

There have been times, particularly war years, when the dental schools had accelerated programs and the number of graduates per year exceeded the number graduated last year. However, the number now being graduated (about 2,750) is larger than at any time when the schools were operating on a normal, non-accelerated schedule.

The eagerness of students to study dentistry and to enter dentistry as a professional career is greater than it has ever been. Dental school deans report that prior to World War II, there were instances in which some did not have a great many applicants from which to select their entering class. Since World War II there has been a great abundance of applicants and each year there have been about 11,000 students applying for admission to approximately 3,250 dental freshman positions. For instance, in 1950-51 the dental school deans and admissions committees selected from the large reservoir of applicants nearly 7,000 students to take the dental aptitude tests which were used in helping to select the 3,250 students admitted to the forty-two dental schools for the Fall of 1951. Already, by November 1, 1951, 2500 students have been tested in the dental aptitude testing

program sponsored by the Council on Dental Education and the American Dental Association for admission in the Fall of 1952. This demonstrates the continued high interest in dentistry which has been developed.

It is indeed gratifying that so many qualified students are looking to dentistry as their chosen career. While there was an upsurge in the number of applicants to many of the professions directly following World War II, the continuing high interest in dentistry indicates that the dental schools will probably have, in years to come, a large number of qualified applicants from which to select their entering classes. The future of dentistry and the maintenance of high standards in dentistry are largely dependent upon the quality of the entering freshman students, as well as the character and quality of the education available in the dental schools.

Functions and responsibilities of the Council on Dental Education: The Council on Dental Education is the educational accrediting agency of the dental profession and has been directed to "make recommendations for means and methods of improving" dental education and its associated subjects. The Council has been given the authority, on behalf of the American Dental Association, "to accredit dental schools and schools in related fields of dental education." Moreover, the Council has also been given the responsibility for accreditation in the field of dental internship and residency training programs and dental specialty requirements. In other words, counseling and accreditation in the field of dentistry have been delegated by the profession to the Council on Dental Education.

Accrediting agencies have been developed by the professions and by the educational agencies to review and to evaluate the educational programs of the professional schools. In the health profession field, accrediting agencies for dentistry, dental hygiene, medicine, pharmacy, veterinary medicine and nursing are important to the professions which they represent and to the state licensure boards and to the public. These agencies are also of tremendous importance to the institutions being surveyed and evaluated. The fact that state legislation establishes rigid rules and regulations governing the practice of dentistry and the practice of medicine indicates the public's attitude relative to the importance of these professional health services. Also, the fact that the states select boards delegated with a responsibility for evaluating the professional man's skill and knowl-

edge before allowing him to practice is further evidence that the state—or rather, the public—demands assurance that the practicing dentist or physician is qualified.

Because the qualifications to practice dentistry depend largely upon the education and training of the individual, the public and the licensing board are interested in the educational program through which the professional man acquires the skill and knowledge enabling him to practice effectively in the state. The profession and the licensing boards have need for an agency which has been delegated with the responsibility of reviewing the duties and functions of the practicing professional man and hence with the aims and objectives of the educational program itself. Individual licensing boards do not have the time or the financial support to carry on a systematic and continuous program of evaluating all the schools with whose graduates they come in contact; therefore, it is natural for the boards to want and need an agency to whom they can turn for this type of service. Needs such as these are of course one of the basic reasons for establishing accrediting agencies.

Any effective accreditation program should include counseling and advising; also, to be most effective, such a program should be a cooperative activity because only in this way is it possible for the agency to advise the schools frankly and conversely, for the schools to provide the agency with all of the important information about their programs.

The American Dental Association has recognized the purposes and functions of accreditation and has also recognized the desirability of including on the Council, representatives from three of the agencies most vitally concerned with the activities of this accrediting agency. The Council has nine members, one-third of whom are dental educators representing the American Association of Dental Schools; one-third are specialists in licensure and represent the American Association of Dental Examiners on the Council. The remaining one-third are members of the American Dental Association representing the profession and the practicing dentist. The Council has a number of subcommittees and these are composed of Council members and others selected for their special training or ability. In addition, the Council appoints consultants who are approved by the House of Delegates of the American Dental Association and makes use of advisers from time to time in the study of its various problems.

The actual operation of an accrediting agency such as the Council on Dental Education is relatively complex. In other words, there are a great many steps which need to be taken between the time the agency is authorized to operate and the time that a list of accredited schools can be developed. For example, the Council, through the work of one of its committees, the Committee on the Training of Dental Hygienists, has studied the aims and objectives of dental hygiene education for a number of years and has conducted conferences and workshops for this purpose. During this time, basic requirements have been established for these educational programs and in addition, representatives of all the schools have been brought together to study the problems of dental hygiene education with the Council, its committee personnel, discuss their own programs and to explain their own peculiar problems. The procedure has also given the schools an opportunity to adjust their curricula to meet the standards which are generally agreed upon by the majority of the schools as well as by the Council. I understand that visits and evaluations of the various educational programs will be made in the next year and a list of approved, and perhaps provisionally approved, schools will result.

After that, the schools will be visited periodically and during each year a survey of a specific part of the dental hygiene education program will be made in all schools. This is in general the same procedure being used in evaluating the dental schools and schools for the training of dental laboratory technicians. For example, approximately eight dental schools are to be visited during the coming year and in addition a curriculum survey will be conducted by questionnaires and correspondence with all of the forty-two dental schools. During this past year, a survey of the financial support of the dental schools and dental hygiene schools was conducted.

Trends in dental education.—The trends in dental education can be discussed from several points of view. Serious thought is being given to the establishment of new dental schools and it is the opinion of their sponsors that most of these will probably be started within the next three or four years. Trends should also be discussed in terms of the number of graduates as well as the number of dental schools. Through the Council's attention to improved methods for the selection of dental students, a great deal has been accomplished by the

use of the dental aptitude tests in reducing the number of failures in the dental schools that can be attributed directly to poor scholastic ability. Even with the present number of dental schools and with nearly 3,300 students entering each year, it is likely that the schools will soon be graduating approximately 3,000 students a year, thereby indicating a mortality or loss of only about ten per cent (10%) of the students during the four years of the dental schools course. This is a decided improvement over the mortality rates experienced previously and still being experienced in some of the professions. The trend of maintaining high standards is evidenced by the high quality of student applicants for it can be demonstrated that the average dental school applicant exceeds in scholastic ability about three-fourths of the liberal arts college students who begin college and university as freshmen.

The dental schools have a great many faculty vacancies, created by a number of factors. However, there is a trend for the dental schools to seek a significant number of full-time faculty members as opposed to having a large proportion of them devoting only part time to dental education. This is noted particularly in the wish of dental administrators to select as their department heads those who can devote full time and thereby supervise their programs closely and integrate the work of their departments with that of others most efficiently.

Increased attention is not only being given to improved methods of selecting students but also to improving methods for teaching the dental students. Educational research is finding an important place in the dental schools of the United States. Research and experimentation in the curricula, a study of the order and arrangement with which courses are given, and investigations in the use of special texts and syllabi are important to the future of dental education. There appears to be a trend in a number of schools not to restrict the contact between the patient and the student to the last two years of dental school but to provide some contact in the sophomore year and even in the freshman year.

There has been a marked change in many schools in the degree to which there is integration between the work taught in the basic sciences and the work taught in the clinical sections. This increased integration and coordination is noted not only in the schools that

have their entire program conducted by their own faculty but also in the schools which utilize the services of other schools and departments on the same campus.

In the teaching program prevention and control begins to rank with prosthetic and operative dentistry. This is exemplified by the increased attention being given to dentistry for children, periodontology and diagnosis and treatment planning, subjects that have been woefully neglected in the past, but with the full realization of the continued importance of prosthetic and operative dentistry. The trend is to equalize the curriculum, giving each subject its share of attention.

It would be difficult, as well as unfair, to try to draw conclusions relative to trends in the amount of time devoted to various branches of dentistry or to the so-called departments in the dental education program. Clock hours and the total number of patients are not accurate indices of the thoroughness with which the subject-matter is being taught. Because of improved teaching methods, it might be stated that all of the time is being used more efficiently than ever before and because of the integration between departments, the attention actually given to any single topic is being increased.

The question is often raised as to whether the dental education program should be increased beyond the present four years. It seems doubtful that this will ever be done in view of improved teaching methods now being developed. It is likely that the needs arising for additional training will continue to be met by the graduate, post-graduate and refresher courses, by the increasing number of internships and residencies and also, perhaps by carefully directed and planned preceptorship programs.

PAST VERSUS PRESENT TRENDS IN DENTISTRY

JAMES J. VAUGHN, D.D.S., *Nashville*

The Chairman has asked that I write a short paper on the present trends in General Dentistry as I observe them now, and to compare the present procedures with those of the time when I entered practice. He gave as suggestions the following: Conservation of teeth (extractions, fillings, prophylactic measures), Bridges (fixed or removable), Dentures (full, partial), etc.

Of course many books have been written on each of these subjects. The dental journals each month carry articles on the above and on others of the various problems that confront the general practitioner in his daily work. New technics are constantly being evolved, as well as new materials that are being produced by the various manufacturers to simplify and to improve the production of the various types of mechanical constructions, all of which is helpful to the practitioner who chooses to keep abreast of the times. The anti-biotics now play an important role in the practice of our profession. We often wonder how on earth we ever were able to get along without them. Yet, of course, most of you, like myself, never heard of such a thing until a few years ago; and even when we came to have some knowledge of the use of these wonderful drugs, most patients were referred to the physician to have them administered. Today, if a dentist is equipped, and has the knowledge of the proper use of these drugs, their administration is a simple procedure and should be carried out routinely when necessary in his office. Most physicians expect the modern dentist to be able to render this service to his patients. Until just prior to World War I we didn't even have novocaine. Well can many of us remember when we had our first instruction on block anaesthesia, how that many were even afraid to use it. Now, of course, it is used routinely for most operative procedures.

The great majority of the dentists doing general practice in 1913 administered nitrous oxide and oxygen routinely for extractions, gave the anaesthetic themselves, and also did the operation. Just how we were able to get by with this, the Lord only knows. Also very little consideration was given to the history of the patient or his physical condition. Little attention, too, was given to infected teeth. The tooth that was hurting was the tooth removed, unless we found several hurting. We did a lot of guessing. The x-ray machine was just coming into use and we had only a few of these. Even they were crude and sometimes dangerous to use.

Sometimes even good sound teeth were devitalized in order to be able to do fixed bridgework in supplying a few missing teeth. Little consideration was given to a planning program in order to conserve the remaining natural dentition and to rebuild to a near normal functional mechanism with fixed or partial denture construction. All too many mouths that had splendid possibilities for reconstruction were condemned to upper and lower dentures.

All of these antiquated methods are known to most of you. If you choose to reminisce I would refer you to one of the most wonderful editions that the A.D.A. ever published, the 1950 Mid-Century issue of June, 1950. This is worth while for anyone to read. It gives you the complete story. I urge you to go back and look it up and read it; it is indeed heartening. The value of such a review is that it might inspire some of us to think of the great advantages that are offered today. Many of us remember the primitive methods that were used on the farm in our earlier days. Those things don't help the farmer today. He, too, has progressed by having a knowledge of scientific methods and programs of the Federal and State Departments of Agriculture, and of up-to-date farm magazines, fertilization of the proper type for certain soil and for the type of planting he will use, and many other things too numerous to mention, *plus* the modernized equipment. The modern farmer must continue to be a student to be abreast of the change that is continuous. It has been recently said that the modern farmer is progressing more rapidly of necessity than is the average professional man. Not that he is more brilliant, but he takes advantage of the planning that has been set up for him. How are we as dentists doing? Are we falling behind the farmer?

Those who are not doing modern dentistry are letting down our profession in spite of our educational background and of all that is being done for us through the continuous professional educational facilities, and through developments in research in all fields in our specialty of the healing arts. If we do not take advantage of *all* that is offered us, we are either stupid or lazy—or both.

As a means of transition from the discussion of the modern general practice as its comparison with that of many years ago, I should like to say a few words about General Dentistry of the present day, before going on to a short concluding section.

What is General Dentistry? Perhaps we can think of it as compared with General Medicine; that is, with the general practitioner of medicine, or as perhaps, a family dentist. To my knowledge, one of the latest specialties in the whole field is that of the specialty in general practice of medicine. So where are we? Are these terms mutually contradictory? Surely we must recognize, respect, and support those who have prepared themselves through additional education to serve better in the various fields of their specialty. But surely, too,

there is definite and abundant need today for both *general* and *specialized* dentists. It seems, therefore, clear to me that if we are to render the best service to our patients, we should be prepared to properly diagnose and at least suggest any treatment that we feel we are not prepared to give, *and* to advise with our patients as to the source where they may be able to obtain this special service. We who are in general practice must *necessarily* refer many of our patients to specialists in order to render an adequate service. Our better judgement might tell us also that we can best serve by devoting the majority of our time and efforts to certain phases of general practice, not at all a specialty, but in a certain branch of service that one enjoys working in, a branch in which one feels he is efficient and in which he has been most successful.

Let us take as an example, Restorative Dentistry, crowns, inlays, bridgework, fixed and removable. Briefly, the following is my thinking on the subject in comparison to that of many years ago.

Until quite recently the majority of the ambitious members of the dental profession thought of advances in restorative dentistry, for the most part, as merely calling for better technique. We considered chiefly the building of restorative structures which would be ever stronger and more accurate substitutes for the teeth lost. But today the clinical side is assuming a place of equal importance. Our technical advances, although yet far from attaining perfection, are great enough to meet fairly well the mechanical needs of the most complicated cases; but the successful application of our techniques carries us at once into two other fields which are far from mechanical. They involve vital personal equations *and* a consideration of man as a completely integrated organism.

There are, then, three basic fundamentals which the dentist must face in the building of a structure that takes the place of missing teeth, or in restoring individual teeth. First, as we have stated, there is the matter of building a structure which is strong and is accurately fitted. But closely involved with this fundamental comes the second requirement, of satisfying *psychological* and *aesthetic* conditions which are to the patient almost more important than the structural restoration itself. A great injury has been suffered, perhaps with disfigurement. This malformation the dentist is called upon to remedy; he must rebuild that which is far more than merely teeth. And, in the third place, the structure built must be functional. It must be not

only strong and well-fitting, but it must be also a mechanism which under all the conditions of living, will *work* for the patient efficiently and long.

Through an amazing evolution, this functional aspect of dentistry has come to be one of primary importance in our thinking today. The dentist who overlooks function is merely mechanically setting a heavy, dead thing into a living, pulsating human body of which it never really will become a part.

Many of the unhappy dental cases which come to us requiring a general reconstruction can, no doubt, be traced to this type of external, non-functional dentistry. The lack of vision in such work, and in the workers who produce it, is no doubt due to the fact that we dentists, as our profession has advanced, have developed such remarkable technical ability in *individual* tooth operations and have given such close attention to minute technical details that we have sometimes wholly overlooked the larger problems, and now are not yet able to visualize the complete picture of the integrated individual concerned.

The professional problem is, however, not simply one of function. We must consider that it is not so simple as merely to fit substitute structures which function well. Into what mouth do they go? Do we fit them into the mouth which the patient brings to us? Often the mouth itself is degenerating. Sometimes the correction of this physical degeneration is our first and, in truth perhaps, our greatest problem. We who try to practice dentistry fully and with regard to every aspect, must correct the general environment, however, as well as build the structures which are our primary undertaking. At this point, too, the problem of restorative dentistry for the present meets the consideration of preventive dentistry for the future in a wise diagnosis of the patient's habits of diet, rest, general health, etc.

Ideal dentistry requires a correction of all the wrong conditions, both in the mouth and in the life of the patient—in so far as a dentist can function in professional advice offered seriously, tactfully, and sometimes courageously. Disharmony of occlusion produced by the interference of cusps, by elongated teeth, and by too broad occlusal contacts should be corrected before our restorative work is begun. Often orthodontic assistance may be utilized to great advantage prior to supplying our restorations, thereby changing a very difficult case to a more simple one.

Each and every mouth presents its own peculiar group of health considerations. These conditions are, and must be, interpreted by every dentist from the background of his own particular training and experience. His diagnosis is necessarily in great part his own, not a fixed thing of absolute science. We would not with finality ever attempt to generalize as to what is desirable or undesirable within any one type of restorative work. Even less readily would we praise or condemn, as a generalization, any one of the various types of removable or of fixed bridges which have been evolved to meet varied and special needs.

We do maintain, however, that the fixed bridge, where indicated and where properly constructed, has been found to be the most successful reconstruction, not only from the viewpoint of health and natural function, but also from the viewpoint of aesthetics and satisfying service. The fixed bridge is easier than any other to care for. It comes nearer to pleasing the patient's pride and satisfying his peace of mind. It is thought of as more nearly a part of his natural make-up than is any removable appliance. Of course the fixed bridge is not a panacea. It has its limitations. There is no panacea in dentistry, as there is none in other fields of knowledge.

The most valuable possessions in the make-up of a professional man, no doubt, are honesty of purpose and courageous integrity in its execution. Good judgement follows closely. But dental restorative work requires also a creative engineering mind, and is exacting as an engineering science. It must surely be practiced also with due knowledge of biology and bio-chemistry in all aspects of the supporting tissues, and of the patient's whole organism. Its success depends, furthermore, on the operative skill of the dentist. It depends again on subtle psychological and aesthetic factors. We must deal with a patient, not primarily with a mouth. We must, most of all, perhaps, be governed by a recognition that what we create is not static, but functional. It becomes an inseparable part of a living active person. It must, on occasions, bear torques and stresses which are difficult to see or foresee under office or laboratory conditions. The measure of the success of a dentist in the building of restorations is to have the patient to be able almost to forget, after the work is done, that restorative substitution for vital dental structure has occurred.

As dentists of today we hope that our restorative work and all our general practice will become increasingly free from many of the

grievous failures of deficient earlier and of present-day diagnosis and methods. Our profession has a great obligation and responsibility; for are we not among the important guardians of a nation's happiness and health? Then may we work with vision, great courage, honesty, and enthusiastic confidence that we shall attain ultimate success, as we join all other professions today in the present emphasis everywhere upon the general welfare and development of the *integrated* individual, the *whole* man.

TRENDS IN OPERATIVE DENTISTRY

ESTES M. BLACKBURN, D.D.S., *Jackson, Miss.*

To be given the task of reviewing the history of operative dentistry for even fifty years and pointing out the trends during that time in a fifteen minute paper should merit the full sympathy of each of my listeners. A recent writer made the statement that everything worth while in dentistry has happened in the last forty years. This, as you know, is a gross misstatement of facts and shows a lack of knowledge of dental history on the part of the writer and does a grave injustice to the leaders of our profession of fifty to seventy-five years ago.

Many of the methods used today in operative dentistry are only refinements and occasionally improvements on principles used many years ago. One of the first steps taken towards our so-called modern dentistry was by Dr. G. V. Black when he laid down his rules for cavity preparation, which he called extension for prevention. Dr. Black's box type preparations have been modified by slice preparations, the use of $\frac{3}{4}$ Crowns, pin-lays etc. to gain the necessary retention and to reduce the bulk in gold work. However, I am sure that all of us are fully aware of what will happen to our work if we do not follow out the original idea of extension for prevention. Cavity forms for amalgam restorations still adhere closely to the principles laid down by Dr. Black.

About this same time Dr. Black worked out several formulas for silver alloys which established the standard that led to the formulas used today in most alloys. These were the first high silver alloys to be used for fillings and except for methods of alloying, cutting, cleaning etc., the formulas used today are essentially the same as those worked out by Dr. Black over fifty years ago.

No material or methods of preserving tooth structure have been found superior to the various forms of gold foil when used in the hands of skilled operators. We had the engine and electric mallets as well as the pneumatic mallets for placing foil fillings, but the materials and the cavity preparations are still primarily the same. For esthetic reasons, gold began to lose its popularity, especially in anterior work twenty-five or thirty years ago. For a time baked porcelain was used, but the difficulty of matching colors, time consumed, expense to the patient and failure to eliminate the cement line brought the profession to look for other anterior filling materials. In a recent article, Dr. Franzwa had this to say, regarding gold foil. "For over fifty years the materials used for filling anterior teeth have remained much the same. One of the materials, gold foil, could not be changed much, though it made up in quality what it lacked in esthetics." Then came synthetic porcelain which possessed esthetic quality but not durability for long service and has remained about the same since it was developed, except for a few minor changes in shades and manufacturing refinements. This material looked good when first placed, was easy to handle, fairly economical, but its great fault was instability in color, and resistance to abrasion and to the fluids of the mouth, along with numerous other shortcomings.

In the past couple of years, 1949 to be exact, a new filling material for anterior teeth was introduced. The direct resin filling materials seem to have overcome many of the faults of the synthetic porcelain though it is not as good as we would like to have. Its color stability is good, it is practically insoluble in the fluids of the mouth and is not brittle. Its disadvantages are that it has the highest shrinkage of any material used in dentistry, resistance to abrasion is fairly low and it is more complicated in insertion than the synthetic fillings. Recently, the brush technique has been devised to help overcome the high shrinkage factor. However, this is not applicable to all cavities, in which case we have to rely on proper undercuts to lock the material into the cavities, while being securely held under positive pressure for at least twenty minutes.

Cements should be mentioned as they have been greatly improved both in quality and shades. Dr. Charles Alexander of Charlotte, N. C. was only a step behind Dr. Taggart when he used the technique of filling cavities without undercuts, with soft gold, by means of hand pressure, removing from the cavity, coating the mass lightly

with wax, investing, and sweating it solid with solder and cementing it in place as we do inlays today.

With the introduction of the disappearing wax pattern technique, by Dr. Taggart for making inlays, a large field was opened to operative as well as prosthetic dentistry. We have come a long way from the day of the cow bell and plasterbowl in which it was the exception rather than the rule when an inlay or crown went into place without a lot of grinding and hammering to our present technique of hydroscopic investment materials, electric furnaces and casting machines that produce inlays and crown that go to place with finger pressure and possess a surface that hardly needs more than a buffing wheel to produce a perfect restoration. The impression materials and techniques should receive their just due in making this accomplishment the rule rather than the exception. However, remember that the principle is over fifty years old.

Pulp canal therapy, replantation and the treatment of pyorrhea were successfully practiced over fifty years ago. Today, with the advent of sulphur drugs and antibiotics, we are able to do possibly a better job with a higher percentage of success than in years gone by, however, that remains for time to prove. All of us have seen teeth with root canals treated years and years before the advent of these wonder drugs, which are still giving good service. I wonder if our successors will be able to say as much for our works fifty years from now?

To me, one of the things that the Profession has become more conscious of, is the patient, that is, to consider the patient from a psychological standpoint rather than to plough doggedly ahead and let the patient make out the best way he can.

From the psychologists' viewpoint, the mouth and its contents are very important to most peoples' personalities. Pain inflicted about the mouth is felt more deeply than the same amount of pain on other parts of the body. For example, the loss of a tooth to some has about the same psychological effect a major operation might have on another. To try to overcome the inherent fear that most patients have, we have employed the use of local anesthesia, analgesia and premedication to try to allay their fears. Also, we might mention the use of radio head rests designed to offset the noise of the bur. It is stated that the human mind, when it has a choice of stimuli, will prefer a pleasant experience (music) to an unpleasant experience

(grinding). The radio chair provides sufficient bone conduction volume of soothing music to overcome the noise of grinding. Also, we might include the use of pentothal sodium, nitrous oxide and other general anesthetics to assist in allaying of fear of the patient and to help make better dental patients for tomorrow.

The air abrasive technique is another development along the same line. From information that I have been able to obtain, it will not be so widely used as first thought due to its revolutionary technique but will be used by comparatively few who are cautious and will stick to it until they have mastered the use of the machine. In this connection, we should include the many improvements in instruments and equipment such as the hydraulic and motor chairs and the electric engine which added to the efficiency of the operator and comfort of the patient. The diamond stones and carbide burs, which are the newest developments in the instrument line, should receive special mention for they have greatly added to our efficiency.

The present trend of modernizing the dental office to make it more attractive to the patient, impressing him with a well-organized professional atmosphere as compared to the unattractive, unsanitary offices of our childhood memories, should be favorably commended. This undoubtedly is a great step forward.

To summarize the rambling thoughts that I have tried to bring to you in these few minutes, I might again say that basically the fundamentals and principles of operative dentistry are about the same as they were fifty years ago. From the standpoint of instruments and equipment, there has been a great improvement which aids the operator in doing a better job, easier for the patient. I will close by saying that the trend of operative dentistry over the past fifty years has been to do a better job more efficiently, thus helping the profession in trying to keep up with the ever growing demand for operative dentistry and at the same time, striving to overcome some of the fear and apprehension of the patient.

Education is not a matter of learning facts or of acquiring information. It involves emotions and will as well as intellect. It is a matter of skills and appreciations as much as it is knowledge.

TRENDS IN ORTHODONTICS¹FAUSTIN N. WEBER, D.D.S., *Memphis*

In the brief period of time allotted to a consideration of *Trends in Modern Orthodontics*, only a single area in which these trends may be observed can be explored; orthodontic education has been chosen.

Orthodontic education, even more than general dental education, has undergone a metamorphosis that is truly amazing, and the changes to come give promise of being *mirable visu* more so than those of the past. Today dental educators are recognizing the fact that a well-organized course in undergraduate orthodontics, with appropriate emphasis on the biological aspects of growth and development of the face and cranium, occlusion and malocclusion, offers valuable and basic information for the study and practice of all phases of dentistry. For this reason orthodontic departmental heads are meeting with less opposition to their recommendations that more curricular hours of undergraduate instruction be given in orthodontics. Moreover, the advantages that such training start early in the course in dentistry are now being recognized and appreciated. For this reason orthodontics is being taught early in the undergraduate dental curriculum.

This is a far cry from the attitude that dental faculties had toward orthodontics in Edward Hartley Angle's era. Dental students of that day were not required to buy textbooks or own their instruments. Dr. Angle's insistence that the students should have both was not supported by the faculty nor appreciated by the students. This antipathy on the part of the students and faculty was the reason he resigned from teaching orthodontics in colleges of dentistry. Fortunately this is an antipathy that has almost completely disappeared from dental students and dental faculties.

The increased instructional opportunities now afforded teachers of orthodontics, place expectations on their dental graduates. More can be and is to be expected orthodontically of today's dental graduate than of his colleague who graduated ten or even five years earlier.

It is not Utopian to express the hope that all future dental graduates may continue to progress, due to the improved quality and increased quantity of their undergraduate orthodontic education, to

¹ Presented on December 8, 1951, at the Convocation of the Tri-State Section of the American College of Dentists held in Memphis, Tennessee.

a point where they may be capable of managing all simple orthodontic treatment problems. And this further implies that their training will be comprehensive enough to give them the diagnostic acumen to separate the simple from the complicated treatment problem.

It is pointless to continually excuse our failure to train undergraduate dental students for the management of these non-complicated orthodontic problems with the oft repeated statement that it is impossible to differentiate simple from complicated malocclusions. It is admitted that the line separating the two groups is a fine one and sometimes difficult to discern. It is also true, however, that our modern diagnostic and prognostic methods are more accurate and there are fewer cases nowadays, the treatment possibilities of which cannot be foretold. With such information beforehand, there is less likelihood of the inexperienced operators attempting the treatment of cases that are beyond their capabilities.

The management of complex orthodontic treatment problems will always be beyond the pale of any class of practitioners except that made up of experienced and well-trained orthodontists.

Ultimately these specialists must be trained exclusively in the graduate orthodontic departments of our dental colleges. This is the only place where comprehensive orthodontic training can be given. The University affiliations that these departments have, make it possible for worthy instruction to be given the graduate students by experienced teachers in subjects kindred to the field of orthodontics.

The well-trained orthodontist of today must possess more than appliance lore. The biological aspects of clinical orthodontics require a training in the allied sciences of anatomy (gross and microscopic, including histology and embryology), physiology, pathology, endocrinology, cephalometric roentgenology, anthropology, anthropometry (especially craniometry) phylogenetics, genetics, pediatrics (especially the study of growth and development), dietetics, speech and rhinology. In addition knowledge is required of biostatistics, biomechanics, biometrics, psychology, photography, physics, and metallurgy.

It is apparent that no one individual can qualify to teach all these subjects. For this reason the preceptor type training is no longer adequate preparation for today's orthodontist. Preceptorship or

apprenticeship training may be used to supplement University training, but must not supplant it.

Orthodontic education is going through the same evolutionary process that undergraduate dental education passed.

Prior to the establishment of the first dental school in this country in 1840, dental education did not exist as a formal organized system of instruction. The apprenticeship system was in vogue.

Progress in dentistry was noteworthy with the establishment of formal courses given in schools staffed by faculties qualified to teach. Before this time any candidate with or without prior education could serve as an apprentice for five years in the office of a practicing dentist and then leave his preceptor's office to practice independently.

This type of training was satisfactory when dental practice was the application of mechanical dexterity alone. However, with the publication of William Hunter's paper, "The Role of Sepsis and Antisepsis in Medicine" in 1910, the relationship of oral conditions and systemic disease was brought to the attention of all, and dentistry for the first time became recognized as a health service. Biology as well as technology became a part of the dental curriculum.

As a result of this, the academic requirement for admission to dental schools was raised. Graduation from high school became a requisite. In 1924 one year of college training became an academic requirement for admission to dental schools; in 1937 the predental curriculum was lengthened to two years of college work.

Today's dental students enter dental college with a sound pre-professional training that qualifies them for the study of the clinical and preclinical dental sciences. Today's dental graduates enter practice better qualified to diagnose and treat the dental ills of their patients than any group of graduates that preceded them. The public is served better dentally because our graduates are better trained.

Leaders in the field of orthodontics may profit from the experience of educators in the field of general dentistry. If the public is to be served better orthodontically, it must be through the improved quality of training of our orthodontic specialists.

Preceptor-type training should be recognized as inadequate preparation for the specialist in orthodontics and orthodontic apprenticeships as the sole teaching method should be discouraged.

The American Board of Orthodontics may ultimately follow the

worthy precedent set by other national certificating boards in medical and dental specialties, by refusing to name as diplomates of the Board, orthodontists who do not have acceptable postgraduate orthodontic training in recognized dental colleges.

Such a regulation if made could become effective five years after the time of its enactment. This would work no hardship on those men already in orthodontic practice who plan to take the specialty board, because it would give them time to make application for certification.

The quality of training given in the postgraduate course could be carefully examined by the Board or some agency of it in much the same manner that the Council on Dental Education examines and rates dental colleges on the quality of the training they give the undergraduate dental student.

It is obvious that it would be easier to assay the value of postgraduate instruction in the orthodontic departments of twenty or thirty dental colleges than it would be to judge the teaching aptitude or ineptitude of the 1,500 members of the American Association of Orthodontists, each one of which is made eligible by his membership in the association, to be a preceptor in orthodontics.

These recommendations are counter to the policies of the American Board of Orthodontics as expressed by one of its officers in a paper read before the Central Section of Orthodontists in 1948.²

The views of the Board on Orthodontic Education may or may not be the same as those published in 1948. However, unwilling the Board may have been to "assume any responsibilities in the dictation of educational policies" in 1948, the present trends in the policy of many specialty boards in medicine and some in dentistry are such as to require formal professional training of prescribed length in accepted universities or hospitals before considering applicants eligible for certification.³

² deVries, B. G.—Some Views of the American Board of Orthodontic Education. *A. J. Orthodont.* 35—1949, 289-291.

³ Educational requirements for certification by the American Board of Orthodontics have been revised upwards. (Cf. Present Status of the American Board of Orthodontics by Stephen C. Hopkins in *American Journal of Orthodontics*. Vol. 38 No. 7, July 1952, pp. 552-555).

To become a diplomate under present regulations of the Board, "Minimum training requirements shall include a study period after graduation from a dental school of not less than two years in graduate or postgraduate courses, hospitals, clinics, dispensaries, preceptorships under the direction of recognized specialists, or fundamental science laboratories recognized by the Council and by the American Board of Orthodontics as competent to provide adequate training in the special field."

It is time that diplomates of the American Board of Orthodontics represent a group of men well-informed in the biological as well as the technological aspects of orthodontics.

TRENDS IN PROSTHETIC DENTISTRY

J. GUILFORD SHARP, D.D.S., *Knoxville*

Consideration of the trends in prosthetic dentistry presupposes a comprehensive understanding of the background of related events leading to the present time. Many have not had the opportunity to become acquainted with the problems confronting dentistry-laboratory-technician relationships, and even a greater number have maintained an apathetic interest in the matter which is considered by many to be one of the foremost problems confronting the practice of dentistry today. It may even challenge the continued existence of the privilege of the unified practice of dentistry, or it may hinder, or delay, the rendering of a complete dental health service to the patient. It is relatively easy to understand the apathy of some toward these problems because such problems do not exist in the area in which they practice but the fact that in some parts of the United States there exists a serious conflict should awaken all to the dangers involved. Apathy on the part of many is of serious concern but what is even more serious is the activity of some leaders of dentistry who participate in and encourage disharmony among the profession and the auxiliary groups. These leaders include men who are widely known in dentistry as well as those who represent the rank and file.

Recognizing the laboratory problem to be of growing concern to dentistry, the House of Delegates of the American Dental Association appointed a committee in July 1939 to study the laboratory problem. The chief concern of this committee being the present autonomy of dentistry and the present unified practice of dentistry.

The September 1940 report of this committee listed some of the problems then existing; including, "Dentistry objects to the following insidious activities of the commercial dental laboratories:—The passage of a law in New York to license dental technicians without the knowledge of the profession. This law was later quashed to the satisfaction of organized dentistry; the codification of dental tech-

nicians under the N.R.A., which was nullified only by the failure of the N.R.A.; the granting of franchises to certain laboratories by dental manufacturers to fabricate their materials which for reasons cannot be secured by the rank and file of the profession; the high costs of fabrication of these materials that have basically no intrinsic value; the bootlegging of denture services by laboratory technicians; the mail order dental laboratory racket; and the recent attempt of the Chicago Laboratory Association to secure passage of a bill to register dental laboratories and license dental technicians in the State of Illinois independently of the dental profession." The profession is still being confronted with some of these early problems of this committee.

With action, as well as study of prosthetic problems formally begun, the Prosthetic Dental Service Committee since that time has been confronted with an increasing field of activity of significant importance. Realizing the need for state prosthetic dental service committees to study conditions at the state level such committees were recommended and established also, in 1943; it was recommended that dental laboratories be organized and certified; and consideration was being given to the registration and licensure of dental laboratory technicians. At the same time, there were widespread attempts to unionize the dental laboratory technicians, the assistants, and the dental hygienists.

In the year that followed, 1944, an accreditation plan for dental laboratories was introduced. This plan, revised to become of broad general type, permitting administration and adjustment within these broad policies at the state level, has become the present plan of accreditation. However, progress in the accreditation program has been slow for in 1947 only 136 laboratories out of an approximate national total of 4373 had been accredited, and all were located within four states:—Ohio, Missouri, West Virginia, and Alabama. Within these four states 469 dental laboratories were in operation. A year later, six states participated in the accreditation program. Within the six states, which now included Florida and North Carolina, there were only 171 dental laboratories accredited out of a total of 559. Southern California now has an accreditation program, administered at the state level, which is not included in the above accounting. Prosthetic dental service committees were appointed in each state, thus establishing a definite liaison between the dental profession and the dental laboratories at the state level. Some laboratory groups

organized state laboratory associations, and of these associations 16 adopted a code of ethics.

Activities of the various prosthetic dental service committees, whether they be at the national level or below, are making every effort to improve dentistry-laboratory relationships. Much time and effort is being spent in discussions with committees of the laboratory groups with the results that a more friendly and cooperative understanding is being reached, and that relationships are being improved. On the other hand, however, there are instances where sincere efforts on the part of groups representing the profession are ridiculed and charged by some of the more rabid leaders in the laboratory group. Such an example is demonstrated by an attack on the book, "Leadership in Dentistry-Laboratory Relations", in an article, "Adventures in Professional Relations", by Leonard Darvin, Dental Laboratory News, New York City, March 1951. An excerpt from his article, which also refers to an article, "The Meaning of Accreditation", which was published in the Journal of the American Dental Association, January 1951, follows:

"Taken together, the book and the article under discussion, reveal a shocking state of affairs. Here we have the spokesmen for official dentistry in this country resorting to misrepresentations, half-truths and deliberate lies to gain their questionable ends. By the use of such methods they have for a time not only taken control of the A.D.A. with respect to laboratory matters, but also have convinced legislators and public officials that laboratory men are just a lot of usurpers. But the truth will out, as decent dentists and honest public officials begin to see through the screen of lies, and it will not be long before those morally fit will oust those now in control."

As the profession has grown in numbers during the past 25 or 50 years so has the number of dental laboratories increased. Estimates indicate that there are approximately 5600 ethical dental laboratories employing 19,000 technicians at the present time. Thirty states have state dental laboratory associations with a membership of 1495 laboratories employing 6086 technicians. Ten states have associations of dental laboratory technicians. These figures represent the trend only as estimates for the entire United States are not available.

Relations with laboratory groups, at the national level, has been hampered because of a divided interest among the laboratories. There was no single organization to assume authority. Today, this

factor has been overcome by the merger of the two groups which formerly acted independently of each other; the result being the formation of the National Association Dental Laboratories. This action should facilitate liaison with the dental profession in all matters of mutual interest.

Some dental laboratories have improved in quality and service, and have utilized the wider range of equipment, materials, and skill in keeping with their desire to promote harmonious relationships with the dental profession, and operate by ethical standards. On the other hand there are a number of dental laboratories and dental laboratory technicians who know no code of ethics or respect the legality of their operations but seem to be willing to flaunt the laws which oppose them. Some seek to overcome the provisions of the Dental Practice Act through legislation sponsored by them independently of the dental profession.

The profession is concerned by the repeated attempts of the few among dental laboratory groups who endeavor to legalize their craft by licensure of the dental laboratory technician, independently of the dental profession. Such legislation is designed to permit their contact with the public in matters that require consideration of the biologic as well as the mechanical. If it takes a dentist four years of study, plus two years of pre-dental education, and perhaps an internship in some hospital to begin to understand something of the biologic importance involved, how could this knowledge be acquired by the technician through the mere passage of a law. Public interests will not be benefitted by such procedure, yet year after year attempts continue to be made to legalize the art to that of a profession.

Many bills have been presented in several states; notably, New York, Illinois, Michigan, Connecticut, Washington, and others, affecting the status of the dental laboratory or the dental laboratory technician. So far, all bills have either failed in passage or were repealed soon thereafter excepting in one state, South Carolina. Failure of such legislation does not seem to alter the determination of these individuals to continue their efforts toward this end for they will again sponsor further legislation as soon as possible. In some instances, such legislation has had the sanction and support of some widely known and influential leaders of dentistry. If such dental leadership defies established policies and objectives of organized dentistry, especially in such instances where the very existence of

the dental profession is threatened, then such leadership should be openly challenged by official dentistry.

In New York State alone there have been nine attempts at legislation dealing with the status of the dental laboratory technician. The latest attempt was made during the present year, 1951, this Bill dying in committee. Reports indicate that already plans are under way to make a tenth attempt to secure legal recognition in 1952.

Is legislation the answer to the laboratory problem? And, can you legislate morals? Since many of the problems are concerned with the ethics of the individual should the approach to a solution be made by some method that provides an incentive and a desire to accept a code of ethics as a means of maintaining a respected position among his fellow workers and the dental profession?

For many years, a large number of the then existing dental laboratories have operated by an implied code of ethics containing the tenets of integrity, honesty, quality of service, and fair practice when no formal code existed and in doing so have acquired the respect and confidence of each other as well as the dental profession. The principles which have naturally been followed over a period of years by the dental laboratories are those which are set up in a plan of Accreditation. These dental laboratories point with pride to their ethical procedures in serving the profession. They believe that they have already met all the conditions found in a plan of Accreditation, and that the satisfactory situation they have just naturally established should not be disturbed. Accreditation is the approved principle for professional-laboratory relationship of the American Dental Association. Accreditation is a means of recognition of dental laboratories who wish to co-operate with organized dentistry in our sincere attempt at a solution of a mutual problem. It means giving official recognition by the dental profession to commercial dental laboratories that meet established standards of quality, ethics, and fair practice. Accreditation needs no legislation for its application.

Unionization of dental laboratory technicians is already established in several states, and there is a continuing influence to extend this program into other states. The profession of dentistry does not oppose unionization. It is the right of any citizen to belong to a union if he so desires. We are concerned, however, when unions or labor leaders interfere with our rendering of a health service to the public and make disparaging remarks concerning the profession. Our serv-

ices are in the interest of public welfare and there should be no outside group interference with our duties.

The formation of a liaison committee of the profession and the dental laboratory association to study the results of unionization in localities where the union is in operation would be informative and desirable. A similar study should be made concerning the dental assistants and the dental hygienists.

Training of the dental laboratory technician began by apprenticeship or on-the-job training; that is, go to work and earn while you learn. The results of this method of training depended largely on the laboratory in which the training was received. Some results were good, and some might have been improved, even to the extent of "un-learning" some of the technical procedures they were taught. Even though wide variations exist in the training of the dental laboratory technician the on-the-job method is still most widely used.

In general, three methods of training are in operation at the present time:—(1) the apprenticeship system in commercial dental laboratories; (2) training in commercial schools; (3) training in schools or courses organized in educational institutions on a non-profit basis. Some recognized dental schools have added to their already established courses of instruction in dentistry a course designed for the instruction of the dental laboratory technician.

The enactment of public laws relating to the education of veterans led to an expansion of the offerings for training of dental laboratory technicians in the commercial schools. As of July 1947, eleven states reported the operation of 19 proprietary schools enrolling 2391 students. There was no uniform pattern of admission requirements or of length and content of the curriculum in these proprietary schools. They were hastily established, poorly organized, poorly conducted, and their graduates were poorly trained, and incapable, in many instances, of retaining employment as dental laboratory technicians if such employment was obtainable. The rapid expansion of the commercial schools indicated the desirability of such training, and the greater need for recognized dental schools to provide this type of education in addition to that which leads to the dental degree. Only four courses in non-proprietary schools were found to be in operation, 3 in New York and 1 in Tennessee. Two additional courses have been established since this report was made, and it is likely that others will follow.

Recognized dental schools are now as in the past making every effort to meet the needs of dental education. Theirs, is a sincere desire to educate the student technically, morally, and culturally, and as this is accomplished the standards of dentistry and the dental auxiliary will gradually be elevated to the dignity which is deserved. The advent of recognized dental schools into the teaching program for the dental laboratory technician is to be welcomed and encouraged. This should not only improve the methods of technical procedures but should also develop a skill in performance. Also, it will create a better understanding of the relationships which should exist between the profession and this auxiliary group.

Only recently have the requirements for the approval of schools for the training of dental laboratory technicians been developed. This evaluation program has progressed to the point that schools are now being inspected and one, the dental laboratory technician training program at the Extension Division of the University of California at Los Angeles, has been approved. Three other schools are now eligible for inspection:—Ohio State University, College of Dentistry; New York Institute of Applied Arts and Sciences; and, School of Dentistry, Meharry Medical College. More study of the training program is needed, although progress has been made toward formal education in dental technology.

Consideration of the varied situations and circumstances confronting prosthetic dental service in some parts of the Country suggests that we of the Tri-State area should feel justly grateful, for there seem to be few if any real problems in dentistry-laboratory relationships. The relationships as they have just naturally developed and prospered have been mutually satisfactory for the most part. Such problems as do exist are usually isolated, are neither aggressive nor sustained, and are the concern of the individual.

In conclusion, we find that there is a definite need for prosthetic dental service committees at the national as well as the state and local level as a liaison between the profession and the laboratory groups, not only because problems exist in some areas but as a means of effecting a cooperative understanding in all matters of mutual interest. Accreditation, though not accepted in all states, is a plan whereby laboratories may receive recognition by the profession. The progress of its acceptance has been slow but the plan should be encouraged until something better is provided. Criticism of the plan

has been very evident in certain localities by outspoken rabid leaders of the laboratory group. Unionization of the dental laboratory technician in some states is effecting a beginning. Legislation concerning the status of the dental laboratory technician seems to be the perennial effort of the few, and only by concerted action by the profession has this effort been kept in hand. Reports from the Tri-State area indicate harmonious and satisfactory relationships exist between the profession and the dental laboratory, and there is reason to believe that such relationships will continue. Instances of unethical or unlawful conduct are few, and are performed by the individual rather than a group. The overall outlook of the prosthetic condition seems to be improving.

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TRENDS IN PREVENTIVE DENTISTRY IN THE UNITED STATES AND SCANDINAVIA

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Since the term "Preventive Dentistry" has enjoyed a rather intangible and loose meaning, an effort is now being made by the Committee on Preventive Dental Service of the American College of Dentists to define it.

Dr. Kenneth A. Easlick, a member of the committee, has presented the following areas, which with others he thinks may be considered within the scope of preventive dentistry:

1. Discriminatory operative dentistry, begun early and continued regularly.
2. Application of amply-tested caries control technics.
3. Proper care of soft tissues by the patient and the dentist, and the referral of the patient to the internist if a systemic condition is suspected to be contributing to the periodontal disease.

4. Maintenance of teeth without premature shedding.
5. Interference with certain borderline malocclusions in their incipency.
6. Motivation of the public to accept or practice these measures.

A rather definite trend toward more activity in each of the above areas is being shown in the United States. The principles which have been set forth by the American Dental Association in order to secure better dental health for the American people are based primarily on prevention and control with all resources used first to provide adequate dental treatment for children.

DISCRIMINATORY OPERATIVE DENTISTRY WITH THE MAINTENANCE OF TEETH WITHOUT PREMATURE LOSS

A program which embodies many of the principles of the American Dental Association was recently observed by the writer in Oslo and Drammen, Norway. I should like to describe briefly this program found in my report to the World Health Organization.

Greater Oslo, which has a population of about one-half million people, has a dental service arranged so that most every school has a dental clinic. There are now over fifty clinics in all. Approximately twenty of the clinics were visited and in eight of these schools dental examinations were made of children 9, 11 and 13 years of age. The examinations were made with a mirror and explorer and the D.M.F. teeth were tabulated so that the findings were broken down into decayed, decayed-filled, filled, extracted and teeth indicated for extraction. Teeth which had been removed for orthodontic reasons were not included as missing teeth. It was interesting to observe that practically all the permanent teeth had been filled and that there were practically no missing permanent teeth even among the thirteen-year-old children. The method of selecting schools for the examinations was made on the basis of schools where there was a second dental chair which was not in use. The quality of dental treatment observed was, in general, very good, but varied school by school, depending on the dentist.

Table I shows the number of D.M.F. teeth and filled deciduous teeth per child for the 868 children 9-11-13 years old in the eight schools in Oslo and two schools in Drammen, Norway. It is most interesting to note that most of the permanent teeth are filled rather than in the decayed or missing category.

It was most interesting to observe that a topical fluoride team was providing fluoride treatments to 7, 10 and 13-year-old children in Oslo.

The school dental service in Oslo was first initiated in 1910 while the public dental service began in 1938. The latter service consists of treatment for children 3-7 years and young people 14-18 years old. The children whose ages are between these two groups are covered by the school dental service. The annual cost per child paid by the parents is 5 kroner (\$0.70) per preschool child, and 10 kroner (\$1.40) per young person per year. The dental services provided school children are free. At this time, approximately one hundred dentists and 160 dental assistants are employed to carry out the

TABLE I

Number of decayed, decayed-filled, missing and filled (D.M.F.) teeth and filled deciduous teeth per child for 868 children 9-11-13 years old in eight schools in Oslo and two schools in Drammen, Norway

AGE	NO. OF CHILDREN	PERMANENT TEETH								DECIDUOUS TEETH			
		Decayed		Decayed-filled		Missing*		Filled		D.M.F.		Filled	
		No.	No. per child	No.	No. per child	No.	No. per child	No.	No. per child	No.	No. per child	No.	No. per child
9	280	88	.31	102	.37	5	.02	1052	3.76	1247	4.45	874	3.1
11	292	146	.50	139	.48	4	.01	1357	4.65	1646	5.64	345	1.2
13	296	148	.50	169	.57	18	.06	2539	8.55	2874	9.71	—	—

* Includes teeth indicated for extraction.

Oslo social welfare dental program for children. There are approximately twenty chairs in two clinics being used for the treatment of children in the preschool age group.

The dental equipment seen in the dental clinics was far better than expected, so, consequently, many pictures at the various schools and clinics were taken.

A limited amount of orthodontic service is being made available to the children in Oslo and Drammen. The main appliances seen were the Andresen removable plate, fixed orthodontic appliances made with stainless steel and incline planes used for the correction of anterior cross-bite cases made of a copper band and a low fusing solder.

A question which is often asked is, "Do all the school children

request dental care?" It was interesting to hear that the acceptance rate for school dentistry in Oslo is about 92 per cent. It was found that there are some very carefully planned restrictions which have been set forth. Some of these regulations are: (1) that preschool children must enter the service at three years of age. If a request for admittance to the service is made after that age, the child must have already received complete dental care usually from a private dentist; (2) that a child entering school at the age of seven receives complete care of the deciduous teeth only if the child has previously had these teeth cared for; and (3) all young people 14-18 years of age must have received periodic dental service during their school period to be eligible for dental service.

In Oslo, at the present time, the surplus from the sick insurance funds is being used to give certain dental benefits to young people, 18-21 years of age. This system of treatment is carried out by the private practitioner and a percentage of the cost is paid by the sick insurance fund; however, to be eligible each child must have been systematically treated up to 18 years of age.

The dental program in the city of Drammen is almost as complete as the one described in Oslo, with the exception that children between 14-18 years do not come under the program. Many school dental programs in Scandinavia have been in operation for some 30-50 years. In Stockholm, as well as in Copenhagen, most dentistry for children is provided in the schools. There are 90 dentists working in 50 school clinics in Stockholm and 71 dentists in 40 clinics in Copenhagen. The dental programs in Norway are primarily community sponsored, to a lesser degree in Sweden and entirely community sponsored in Denmark with no financial assistance from the government. The dental care programs for school children in the rural areas seem to be relatively complete for the care of the permanent teeth. In many areas there is a definite shortage of dentists.

AMPLY TESTED CARIES CONTROL TECHNIQS

The application of amply tested caries control technics has received more attention in the United States than in Scandinavia. The present trend seems to be directed toward the restricted use of refined carbohydrates, the use of topically applied fluoride, the fluoridation of public water supplies and the proper use of the tooth brush especially following the consumption of fermentable sugars. There

certainly is a trend toward more research in the field of dentifrices which may effectively assist in the control of dental caries.

In this country there has developed a trend to discourage the sale of sugars in the schools. In the fall of 1950, the Council on Dental Health of the American Dental Association adopted a resolution which requested that the sale of candy, soft drinks and other confections be discouraged in our schools; in the May 6, 1950 issue of the *Journal of the American Medical Association*, the Council on Food and Nutrition gave its reasons why carbonated beverages should not be sold on school premises; and in August 1951, the National Congress of Parents and Teachers went on record as being in favor of banning the sale of candies and carbonated beverages in the schools of our nation.

The dental research work now being done at Vipeholm hospital in Lund, Sweden is most interesting, since the object of the study, when begun in March, 1944, was to ascertain the possible relation between nutrition and tooth substance. A total of 659 patients was subjected to various investigations. On August 1, 1947 continued investigations were begun to determine the effect of sugar in tooth substance. Dr. Gustafsson plans to soon publish some interesting findings.

The use of fluorides, especially the fluoridation of public water supplies, is rapidly developing into a comprehensive nation-wide movement. There will be certain complicating factors to be solved. If it is considered a possibility that most of the some 15,000 public water supplies in the United States can be fluoridated during the next five years, it would seem most advisable to find out immediately how many of these supplies are now approved by their state health agency. For instance, in Tennessee there are over two hundred public water supplies with less than ninety approved. It seems logical to think that soon there should be a campaign developing for more water supplies of this country meeting the standards which are necessary if the water is to be fluoridated.

PREVENTIVE PERIODONTIA

There seems to be more interest developing each year in the prevention of periodontal disease. Much has been written about prevention and the early manifestations of the disease in children. A workshop was held at the University of Michigan School of Den-

tistry last September entitled "What is Fact in Regard to Periodontal Disease?" There seems to be a concerted effort being made to develop more of an understanding of the causes which contribute to this disease.

PREVENTIVE ORTHODONTICS

Knowing when to interfere with certain borderline malocclusions in their incipiency is a fascinating subject which needs to receive attention if more children are to receive a preventive orthodontic service. There does seem to be a definite trend toward giving the undergraduate student a better background in the field of growth and development so that he will know when he, as a private practitioner, may interfere and prevent a malocclusion from developing and when the case should be referred to the orthodontist.

In Drammen, Norway, I observed Professor Selmer Olsen, of the Norwegian Dental School, examining school children. Each child was classified as to his orthodontic needs. Professor Olsen used the following five classifications: 1. No treatment; 2. small amount of treatment; 3. might treat; 4. treat for two years; 5. under private treatment. Arrangements had been made in Drammen so that children in need of orthodontic care might receive it as a part of school dentistry. Professor Olsen as a specialist prescribed the treatment that he thought was indicated for each child. Most dentists in Scandinavia practice orthodontics to a limited extent. The removable appliance is in general use, especially the Andresen plate.

At the recent joint meeting of the orthodontic and dental public health sections of the American Dental Association in Washington, D. C., the theme of the half-day session was, "How to Provide More Orthodontic Services to More Children." The program was divided into two topics; the first considered the orthodontic needs of children and the problems involved in supplying service, and the second dealt with the classifications and technics which make it possible to supply more orthodontic service.

A trend observed in Scandinavia which might well be considered in the field of Preventive Orthodontics was the extraction of teeth, especially bicuspid, for orthodontic reasons in selected cases. Dr. Kjellgren, Director of the Orthodontic Department at the Eastman Dental Clinic in Stockholm, and others, have advocated this type of treatment in selected cases for a number of years.

A definite trend is now developing where an orthodontist, prosthodontist and pedodontist are members of a plastic team which includes a plastic and general surgeon, a pediatrician and a speech teacher. This type of team has been found almost essential when the treatment of a child having a cleft palate is under consideration. A most interesting program of this type was observed in Denmark. In that country, every child born with a cleft palate or harelip has the defect recorded on the birth certificate. Last year, 150 new cases were seen at the clinic in Copenhagen. There have been a number of plastic teams formed in the United States in recent years.

MOTIVATION OF THE PUBLIC TO ACCEPT OR
PRACTICE THESE MEASURES

There has developed within the dental profession a desire to create more interest in Preventive Dentistry among all our people. The Council on Dental Health of the American Dental Association has done much to stimulate interest in this field. The same can be said for the Norwegian Society for the preservation of the teeth (Norsk Tannvern). In the United States, the dental health workshops, the development of local and state councils on dental health and the promotion of an annual children's dental health day, all show the efforts now being made by the dental profession to motivate people to practice more preventive dental procedures.

Other trends are the postgraduate dental seminar programs on dentistry for children, preventive dentistry and human relations. An article entitled "Human Relations in Dental Practice," written by Dr. William Hollister, is recommended as a must to be read. The article is published in the October 1951 issue of the Journal of the Tennessee State Dental Association.

COMMENT

In conclusion, I wish to state that I realize that many newer trends in Preventive Dentistry have been unintentionally omitted. No doubt, some areas should have been covered more thoroughly and others less. I do wish to state that the term "Preventive Dentistry" has again enjoyed a rather loose meaning in my use of the term. It does seem that some of the trends discussed might have been more logically considered in the field of conservative or protective dental practice; however, in the final analysis a broad definition of Pre-

ventive Dentistry might be considered as the prevention of the loss of teeth.

I do sincerely think that the picture of preventive dentistry in the future is such that much depends on grant-in-aid funds earmarked for dentistry so that preventive public health programs can expand rather than remain as status quo functions in a health department. Another major must in the field of Preventive Dentistry is the training of more dental research workers and the promotion of more and better dental research in our country.

TRENDS IN DENTAL LITERATURE

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In the Mid-Century issue of the Journal of the American Dental Association, a complete summary of dental literature and dental journalism was published. The two being so closely related, we shall not attempt to separate them.

To discuss trends in dental literature, and the effect or influence they exert upon dentistry, we must earnestly endeavor to present facts, and this cannot be accomplished without a certain amount of unfavorable criticism regarding the manner in which our literature is now being selected and distributed.

The first dental periodical, "The Journal of Dental Science" was published in 1839 and from that time to 1939 there were seventy-three periodicals owned by professional organizations, and eleven privately owned. From 1839 to 1951, or one hundred and twelve years, there has been improvement in dental literature, and editorially, but methods for the selection and distribution apparently have become stale-mated.

It has been an occasional custom for some journals to solicit material for publication. In the role of a long-time observer and contributor to dental literature, it is not difficult to point out trends of long standing, that in my opinion have not reacted to the best interest of our profession.

Under the present system of selecting submitted manuscripts and the distribution of same, the responsibility rests largely upon the editor. Some journals may have an editorial staff. It is most difficult to find an editor who can always adjust his trend of thought to those of his contributors.

Traditional customs, for a long time may suffice, but in this progressive age, in all departments of dentistry, we should make every effort to keep in step with "The March of Time."

The average writer devotes a great deal of time and study in preparing a manuscript and feels he has something of interest and perhaps of value to his fellow practitioners. Because of this he is entitled to have his literary offering carefully studied and a fair and impartial evaluation made regarding its worthiness for publication. Personal experience is a great teacher and my own has convinced me that manuscripts are not always given such consideration. Under present methods it frequently occurs that manuscripts are rejected for no other reason than an over supply of material is on hand. Such rejected material, in justice to the author, should be delegated to another dental publication by the journal that could not use it.

Unfortunately, some writers accept a rejection as final and the once-prized manuscript goes into the discard. In dental literature there seems to be more of a trend to the scientific, rather than to the practical phases of dentistry. The average dentist is not interested in research and naturally prefers a type of dental literature that he can easily digest, especially when he is tired.

In our profession are publications devoted strictly to scientific research and all such material should be delegated to them, rather than to The Journal of the A.D.A. This suggestion in no sense minimizes the importance of research. A great deal of literature is crowded out of the Journal because of much space being utilized in pictorial displays of individuals and group gatherings.

Professionally controlled journalism is most important to our profession and every effort should be exerted to make such controls universal. This, as you know, is the objective of The College. Such an accomplishment would provide assurance to authors that all accepted material would be distributed through approved publication channels. When an objective, national in character, is to be undertaken, national coverage is most important.

The Journal of The American Dental Association a few years ago adopted a bi-monthly plan of publication but because of economic difficulties, had to discontinue it. This, of course, added to the congestion of material crying to be published in that official organ.

Referring to the question of proprietary publications, it might be well to approach the subject from the standpoint of distribution.

Dental supply houses and dental laboratories being the chief sources, why not begin a campaign to sell them on the importance of professionally-controlled dental publications to dentistry? Dental literature is one of the dynamic forces in our profession and for that reason it should be professionally controlled. For one man to have authority to screen all manuscripts submitted to a national publication fails to place, in my opinion, a very high appraisal on dental literature. If we are to correct trends in dental literature that are harmful, there is no alternative but to analyze carefully all details.

When one has prepared a follow-up article, avoiding repetition of material presented in former articles, to have it rejected because of too much repetition is a literary rebuke difficult to comprehend. If a manuscript is accepted and re-edited, there is a possibility that in deleting some of the material, the real purpose or intention of the author may be lost. In justice to the author it should be returned to him for approval before being published.

On four separate occasions manuscripts were submitted by me to the editor of a national publication and all four were rejected. On four other occasions in correspondence with the same editor I raised four questions and he requested me to write an article on each. They were published by him. It is my contention that the four he rejected were as worthy of publication as the four he requested me to write.

In 1932 it was my pleasure to begin a crusade to gain recognition for dentistry by life insurance companies in the examination of applicants for insurance. The first article appeared in *The Journal of the American Dental Association* and reprints were mailed to a large selected group of medical directors of these companies and other officials. Two other articles were published by the journal and follow-up reprints were mailed out.

The late Dr. C. N. Johnson became interested and devoted a page editorial to the proposal. The insurance objective is now in the hands of the Council on Dental Health. During the latter years of its publication, *The Tri-State Medical Journal* accorded space use when requested. This aided greatly in the insurance endeavor. The Canadian Dental Association joined the crusade and today life insurance companies are definitely more dental health-minded.

In bringing this to your attention, it has been done for the purpose of emphasizing that in any worthy objective in the interest of dentistry, complete cooperation has been given. Interested and sympa-

thetic readers, regarding any worthy endeavor, are further channels through which momentum is gained.

Editors have rejected or returned articles, only to confess later that they had no idea such data were available, and then requested to see any other material that might be secured. Editors are not always to blame for this sort of thing. They need and are securing broader fields of co-operation.

Equal opportunity is the soul of democracy and we should and are expanding the opportunity in dental literature.

And now, if I am not too presumptuous, let me suggest an Objective for The College. It is this: Establish in the Central Office of the A.D.A. in Chicago a 'Department of Dental Literature' that would serve as a Clearing House for all submitted manuscripts to professionally controlled journals. It would be the policy of the Department of Dental Literature for the personnel to study carefully all manuscripts, and those acceptable for publication would be delegated to either state, sectional, or national journals deemed by the department as the best vehicle for distribution. The plan would be fair to authors and of much value. Otherwise some is and must be lost. It would aid in developing the ability and perhaps, the ambition to write and, no doubt, provide a greater variety of articles on the practical side of dentistry.

Manuscripts, distribution, and campaign planning would be the responsibility of the department. Great care should be exercised in selecting the entire personnel. They should be individuals of vision who can readily recognize the potentialities of any contribution or objective relating to dentistry. The department would in no way interfere with editorial policies of the various journals, or in the handling of program material, state, sectional, or national.

From the department information relative to dental literature would be distributed. Under the plan, editors could concentrate more definitely editorially, and act in an advisory capacity to the department. Whatever the cost of maintaining the department would be more than compensated for in the advantages gained.

And now, in leaving this with you I conclude with this quoted, but rearranged prayer; "God give us the patience to accept that which cannot be changed. Give us the courage to change that which can and should be changed. And above all, give us the wisdom to know which is which."

BOOK ANNOUNCEMENTS

DICTIONARY, ILLUSTRATED POCKET MEDICAL: This is a first edition, edited by Normand L. Hoerr, M.D., and Arthur Osol, Ph.D., with the assistance of an editorial board. It consists of 1028 pages, including 60 illustrations, 16 in color on 24 plates. Dental terms are freely distributed throughout the text. In the light of present day supply, this book should prove valuable to the dentist as well as the physician. Pocket size makes handling under any condition, easy. Published by Blakiston Company, New York. Price \$3.75

PRACTICE OF DENTISTRY: This is the title of a book of 203 pages, including an index and a large number of illustrations by J. C. G. Fitz-Hugh, D.D.S., McKeesport, Pennsylvania.

This in a way is a professional auto-biography. It is the story of the practice of Dentistry, beginning with the location and equipment of an office, through all phases of dental practice, terminating with a chapter on "Cleft Palate and Harelip". It is well presented, with clear cut illustrations and should be very helpful to young men beginning practice.

It is in a way comparable to a similar book a number of years ago by E. Edmond Kells. Published by Richard R. Smith, Inc., New York. Price on application.

ORTHODONTICS: This is the title of a new book, by Bercu Fischer, D.D.S. It is prepared under three headings or departments namely,—Diagnosis, Prognosis and Treatment.

It consists of 334 pages, with an index, including 1180 illustrations on 212 figures. It is profusely and extremely well illustrated; Published by W. B. Saunders & Company, Philadelphia—Price \$12.00.

HISTOLOGY: This is the 6th edition of this book by the author, Alexander A. Maximow, Laboratory Professor of Anatomy, University of Chicago, and William Bloom, Professor of Anatomy, University of Chicago. The early editions were by Professor Maximow. The content of this book by Bloom is the same as that of the original only revised as of this date.

It consists of 616 pages, with an extensive index and 986 illustrations, 257 in color; Published by W. B. Saunders & Company, Philadelphia—Price \$10.00.

LA THERAPEUTIQUE ORTHOPEDIQUE FONCTIONNELLE DE LA FACE: This is the title of a book by Edmond Muzy, Professor, Faculté de Medecine, Rome, Italy. It carries a preface by Harold Chapman and Traduction et Commentaires, by Dr. Etienne Cadenat, Professor, Clinical Stomatology, Faculty de Medecine de Toulouse. This book consists of 160 pages, with 101 illustrations, paper cover, published by Julien Prelat, 6 Rue de la Bucherie—Paris (Ve) Price 1.300 francs.

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