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JOURNAL American College of Dentists



Published Quarterly for General Circulation by The American College of Dentists

Journal American College of Dentists

Presents the proceedings of the American College of Dentists and such additional papers and comment from responsible sources as may be useful for the promotion of oral health service or the advancement of the dental profession. The JOURNAL disclaims responsibility for opinions expressed by authors.

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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.

Teacher Training Fellowship

Recognizing the need for more dental teachers and their proper training in educational procedures, the Board of Regents in 1951 established a fellowship program for the training of teachers of dentistry. The fellowship grant covers a period of one year in the amount of \$2500.

Grants-in-Aid

Because of its interest in research, the Board of Regents in 1951 established the following grant-in-aid funds:

(a) The William J. Gies Travel Fund, through which grants are made to research workers "to enable them to visit the laboratories of other investigators to obtain first hand information on associated problems."

(b) Research Fund for Emergencies, available for aid in the event of loss of equipment, animal colonies, needed repair and the like.

For application or further information apply to the Secretary, Dr. O. W. Brandhorst, 4221 Lindell Boulevard, St. Louis 8, Missouri.

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Inaugural Address*

GERALD D. TIMMONS, D.D.S. Philadelphia, Pa.

FOR MONTHS I HAVE LOOKED forward to this moment with an ever increasing dread. Each year the persons who prepare the program dutifully set aside a time at which the President-elect is expected to present his inaugural address. Each year the persons who attend this lovely dinner are subjected to an exposition of the thoughts which have been accumulating in the mind of the person who is being honored by his elevation to the highest office this organization can bestow.

I, too, had begun an accumulation of thoughts and was prepared to set them down in what I hoped would be an orderly manner. After spending some hours at this task, I happened to read a newspaper report of a commencement address recently delivered by General Nathan Twining. The report stated that he had been called upon to deliver his address and had made the usual preparation for it only to arise and astound the audience by proclaiming that after having made due preparation he suddenly thought of all the similar occasions he had been called upon to attend and out of all he could not remember a single instance in which his memory could be relied upon to furnish him with the details of any of the speeches he had made or heard.

So it is with this inaugural address. Custom dictates that on this occasion the incoming President must make his initial appearance in the high office and at this time outline to his captive audience his plans and proposals for the coming year.

There are times when I relish the thought of breaking tradition—and this is one of those times. Although I am sure that there are some who would listen with care to a delineation of proposed plans, I am equally sure that a poll of the audience would show that a large majority would prefer that we get on with the program where we will have an opportunity to listen to what I know will be an interesting discussion of "The Joys and Woes of Modern Living" by our very capable speaker Dr. Kistler. Being a firm believer in

^{*} Presented at the Convocation of the American College of Dentists, September 30, 1956, Atlantic City, New Jersey.

the majority law, I shall do just that with the abiding hope that my audience will look upon my action as an unexpected "Joy" which could not have been anticipated when the dinner ticket was purchased!

I approach the duties as President of the American College of Dentists with awe. Little did I think, twenty years ago, that I would ever find myself in the position I occupy at this moment. To me, membership in the American College of Dentists could very well be the crowning achievement of a professional career and when I think of the many stalwarts of our profession who have preceded me, it can only serve to stimulate me to the point that nothing but my best will do. That I promise.

I seek the cooperation of each member. Membership in the College, all too frequently, is looked upon as the final compensation for professional contributions. On the contrary, membership comes only as a recognition of one's potentiality for greater things. The realization of the objectives of the College can only come through the pooling of these potentialities.

With the aid of our most capable Secretary, Dr. Brandhorst, and his diligent and faithful assistant Miss Crawford, together with the other officers and Regents we will attempt to carry forward on high ground. The reorganization and current functioning of our splendid Committees augurs well for new achievement in the realization of our objectives. If my term can contribute to this advancement, I can then and only then feel that I have kept my promise to the membership.

The Joys and Woes of Modern Living*

RAYMON KISTLER, D.D., LL.D.**

Jenkintown, Pa.

Members and Friends of the College: I am perfectly conscious of the fact that the part of Dr. Timmons' address which merited the greatest applause was when he said he wasn't going to make a speech! It puts me in sort of a tough spot. I sympathize with you, really I do. Here you have had a long day with a lot of heavy mental effort, you have had a good time tonight, you have had a good dinner, you have your officers all installed, you have given away some keys that don't let you into anything. Why don't they let you go home? Or maybe there are some parties scheduled, and you have a big day tomorrow.

You know, the statisticians have figured out that if they would take all the after dinner speakers in America and place them end to end it would be a good thing. But don't you become too much encouraged. I was invited to make this speech several months ago, I have been working on it ever since, I have driven down here from Philadelphia and I am going to get it out of my system.

First, I want you to get it straight that when I am introduced as president of Beaver College in Jenkintown, Pennsylvania, I want you men to know that that is a girls' school. I am the president and I get paid for it! Beaver College is primarily a liberal arts school. We have some professional courses, among them courses in home economics.

I was telling the home economics girls recently of the incident of the bride who wanted to have a special treat for her hubby when he came home from a hard day's work—she took the cookbook that her mother gave her and waded in and concocted some biscuits which she felt would especially please him.

That night hubby came home tired from the office. As wives always do after they have been married four days, she met him at the

** President Beaver College.

^{*} Presented at Installation Dinner, Atlantic City, New Jersey, September 30, 1956.

door with a warm embrace, they sat down at the table and at what she thought was the psychological moment she lifted the napkin from the biscuits and pushed them toward him. He got the idea and he said, "Honey bunch, you made them, didn't you?" She said, "Uh-huh." So he took one and broke it—the second time he tried—and still with some lovelight in his eyes he said, "Sweetheart, did you make them all yourself?" She said, "Uh-huh." He said, "Don't do it again. You are too light for such heavy work."

I have forgotten who it was that selected the topic for this two-hour discourse tonight on "The Joys and Woes of Modern Living" but after I got the suggestion I began to do a little research. Following the current practice, I conducted a poll and tried to find out how men and women and young people felt about this business of the joys and woes of modern living and I have come to give you the result of this research because it seems to me to be perfectly obvious that you are going to decide that the balance is in favor of the joys or the woes determined by your own attitude toward life, what you expect out of life, the philosophy which you adopt as your face the years as they roll on before you.

To put it in another way, I think it depends on the faith that we have, on the measure of our optimism. I think we can make ourselves miserable, and I find a lot of people who are making themselves miserable because they are determined to look always on the dark side. I think the newspapers help them on that a good bit. You don't have to look very far to find the dark side, do you?

I think it is too bad that people read the newspapers and think they are getting a picture of modern life. You're not. You are not supposed to. Do you realize that a newspaper is supposed to print news and that news is the unusual?

Let me illustrate. We get concerned about the divorce rate and that the newspapers keep printing about all of these divorces. You know, I'll get disturbed when the newspapers begin headlining the fact that Mr. and Mrs. Jones are living together happily on Main Street. As long as divorces are news there is some hope for us.

I think the same thing is true of juvenile delinquency. I live with 600 juveniles, I guess; they are not delinquents, I think. I was at a meeting in Philadelphia recently where we were talking about this and one of the men who has a good bit to do with it was giving us the sad statistics of the crime committed by juveniles. I asked him afterwards if he had any definite statistics on the proportion of the

teen-aged population in the Philadelphia area that could be classed as juvenile delinquents. He said, "Not exactly, but it's something less than two per cent." You never hear of the boys and girls that are living good, clean, honest lives. You read about the ones that go haywire, and let's just remember that that is only two per cent.

Let me illustrate in another way. You will pick up your paper and it will tell you about a plane leaving La Guardia Field and crashing in the Pennsylvania mountains, killing 48; the next night you will read another headline about a plane leaving La Guardia Field and crashing in Elizabeth, N. J. I know people who have read those headlines until they won't ride the planes. Do you know why? Because you will never see a headline in your paper that tells you that a plane leave La Guardia Field and lands safely, that 500 planes left La Guardia Field yesterday and landed safely at their destination. You see, that does not make the headlines.

The same is true in our international affairs. Our newspapers, our magazines play up the points of tension because they are the unusual, because they are news. I don't blame them, that is what they are supposed to do, but I blame you and me if we take that as the usual and think that somehow the whole world has gone haywire.

The jobs and the woes of our living in the days that are to come are going to be determined by our ability to keep a focus. Not hiding our heads in the sand Pollyanna-like and refusing to face facts, but by facing the facts and looking at them objectively and not feeling that somehow or other we always have to take a dull view of things.

I think that we will have to develop a little more faith in ourselves and the things we are doing. Here you are, a group of dentists. Why anybody would want to be a dentist is something I could never understand, and this is not quite the first but it is one of the few chances that I have had to get back at you for all of the hours that I have spent in dental chairs. Aren't you proud of your profession? Do you have times when you wish you had done something else? Do you look with envy at somebody who was perhaps in your class at college and who went off on another angle and headed into another profession and you wish that you were doing something bigger and better than you are doing now? If you do, that is unfortunate.

I think a conference like this and the meetings that are being held here this week should reestablish your faith in your own profession. What would we do without dentists? You are an important part of the ministry of this nation and of the world in the relief of pain and you should keep your health and your shoulders back. I am a minister. I am a college president by accident. When the trustees invited me to become president of Beaver College I was pastor of a church up in New York State. I said I did not know anything about being a college president. They said, "You don't have

to know anything to be a college president," so I came!

When I was in college the suggestion was made that every boy should be a preacher and every girl should be a missionary. I don't believe that. I'd hate to see every boy a preacher; it would ruin the business! God doesn't want every boy to be a preacher. God wants doctors, God wants lawyers, honest lawyers if that isn't wanting too much, God wants farmers, God wants coal miners. You know, it is all a part of the plan of God.

I think that we should quit envying the other fellow and the thing that he is doing and possibly a little more accept and just pat ourselves on the back and know that we are making a contribution right where we are. We should reestablish our faith in ourselves, our faith in other people and other groups, other professions, even other

political parties.

Would you folks be interested in knowing who is going to be the next President of the United States? I have the answer for you! The next President of the United States is going to be the man whom most of the people in America want enough to go out and vote for him, and we should be very happy about that because this is one of the few places in the world where that is true. And incidentally, I am pretty sure that the country is not in as bad shape as the Democrats are telling us that it is and I am not at all sure that it is in as good shape as the Republicans would have us believe it is. But that's all right, that's politics. It's wonderful that we can put on a show like this every four years! It's all right and let's be happy about it. Let's be proud that we live in a democracy where we can do these things. We are not all of the same political party. We don't all go to the same church. You all look good enough to be Presbyterians, but maybe you are not!

I heard that an Episcopalian came over from Europe and landed in New York and he wanted to see that famous church, Christ Church. He got hold of a taxicab driver and asked him to take him to Christ Church. The taxicab driver was an Irish Catholic and they ended up at St. Patrick's Cathedral. The Episcopalian said, "I thought I told you I wanted to be taken to Christ's Church." The Irish Catholic said, "Begorra, if he's in town he's here!" I would not agree with him but I am glad he felt that way about it.

I was telling that incident to President McGuire of Villanova University, a Catholic institution in our area up there—(I am not going to start any argument whether Jenkintown is a suburb of Philadelphia or Philadelphia is a suburb of Jenkintown.)—I was telling it to Frank and he said it reminded him of the story told about a man who asked a cop in New York City how to get to the Presbyterian Hospital. The cop said, "You go up this street three squares and that great building on the corner is St. Patrick's Cathedral."

The man said, "I don't want to go to St. Patrick's Cathedral; I want to go to the Presbyterian Hospital."

The cop said, "You go up this street three squares and that great building on the corner is St. Patrick's Cathedral."

The man said, "Listen, can you tell me how I can get to the Presbyterian Hospital?"

The cop said, "I'm telling you if you'll only listen. You go up this street three squares and the great building on the corner is St. Patrick's Cathedral; you open the door, step inside and yell 'To hell with the Pope' and you'll get to the Presbyterian Hospital."

I think we are going to find a lot more of the joys of living in this day if we can develop a little more faith in those who differ from us in our political or religious or social belief, those who differ from us in the color of their skin, the church which they attend, or the background from which they came. Everybody has a contribution to make.

One of the joys of being in a situation such as I enjoy with the girls there at the college is that it is pretty hard to determine which are Presbyterian, which are Catholic, which are Jewish. One of the most popular girls on the campus at the summer session this year was a Mohammedan. Her father is a general in the Iranian army. They are all wonderful people.

The only problem we have internationally is to find a basis for our faith in each other. We don't trust the Russians. So what? Remember this, men and women: the Russians don't trust us. Let's not forget that, and let's remember this. . . . I am not a Communist, I am not even "pink," but let's remember this, that if Russia was establishing air fields that could accommodate bombers in Labrador and in Canada and in Mexico, we'd be worried. Look at the map. That is what we are doing. It is the only thing we can do, I am not criticiz-

ing it, but what I am saying is that the only problem we have in the field of international relations, the only thing that is causing all this talk of "cold wars" and "hot wars" is the fact that we have not yet been able to find a basis for faith in each other and confidence in each other and for taking them at face value. I think we have to be careful. Don't misunderstand me. I think we have to maintain our strength so we can talk to the man that can't understand any other language, but some day we are going to find the answer to that problem.

I think it is too bad that so many people I talk to have the feeling that we are headed for some sort of disaster, that this country is going "bust." That's crazy! As I read the reports of the financial experts at the present time I find that about a third of them are worried over inflation, another third of them are worried about a depression, the other third are worried because they can't decide which to worry about. Everybody has to worry about something.

Why can't we be happy? We are on the top of the heap. There are sixty millions of people working in this country, making more as a result of their labor than they ever dreamed of, turning out more as a result of their labor than was ever thought possible, and we are sneaking around, afraid something is going to happen. It isn't.

They tell us about our national debt. What is it? Two hundred seventy-five billions of dollars. I guess that is a lot of money, but I am not going to lie awake tonight worrying about the national debt. I'll tell you why. I go down to our suburb of Philadelphia and I see the postoffices owned by Uncle Sam. I go down to the Navy Yard and I see all those ships. I read an article in the paper the other night that said the Defense Department of America alone owned property valued in excess of \$200 billion. Now you add to that the post offices, add to that the fact that Uncle Sam today owns one-fourth of the land area of this country. You see, you never see a balance sheet of Uncle Sam's. The ordinary businessman if he puts up a building and it costs him \$100,000 puts the cost of the building on one side and the value after it is completed on the other side. When Uncle Sam spends \$100,000 he just adds it to the national debt and that is all you hear about it!

I know perfectly well that Uncle Sam has plenty of assets to cover the entire national debt. If I could get in that shape I would be all right. And then he keeps his loose change down at Fort Knox. We are not going broke. Our trouble is that we've got too much and we are the envy of the rest of the world, and many are still hoping

that we are going to play Santa Claus to all of them. But we should not be thinking all the time that disaster is lurking just around the corner and that all these woes are piling up on us.

The same thing is true of this inevitable third world war that some of the people that I polled told me about. If you want to spend the next few years worrying about the inevitability of a third world war, go ahead and worry if that is going to make you happy, but I can't see it. I don't feel that I am being Pollyannaish and hiding my head in the sand but rather that I am just looking at the facts. Who is going to fight a world war? There is nobody in the world in position to fight a world war except the U.S.A. After we get through with all the political arguments that we are hearing in these times, let's just remember that. The Russians have demonstrated time and again that they are not going to get into one if they can help it. We hear about the 175 divisions of men that Russia has. Remember, those divisions are different from ours, and remember this, that Russia doesn't know how much she can count on some of those divisions anyhow. Do you think the men in the Kremlin would dare arm the divisions they have of Poles and Czechoslovakians and Latvians and send them against us in a war? Ah, no; they would be afraid to do that!

Anyhow, you can't win a world war with divisions of men. The prime thing you have to have to win a world war is steel and loads of it. Last year Russia and her satellites together produced 35 million tons of steel, our allies in Western Europe produced 45 million tons of steel, and we here in America produced over 100 million tons of steel. On the basis of steel production the chances of war are as 35 is to 145.

The trouble is we keep looking at the trouble spots. We are worried about the Suez Canal. We are worried about the situation over in Palestine. Oh, we can think of so many things to worry about. You get out the newspapers of a year ago and read the headlines, will you? We were worried about the Arabian refineries and about the nationalization of the oil industry in Iran. Nobody knew what was the answer. We were sympathetic with the Iranian people. They wanted to get rid of the British. That is just where we were in 1776. We had sympathy with them, but Britain is now our ally and we did not want to see Britain pushed around and nobody knew the answer. That was back there a few months.

You look at those old trouble spots, that City of Trieste that occupied everybody's mind. It is all settled. The Saar has been a sore spot for years and just this week a man from Germany and a man

from France shook hands, sat down and talked the situation over and then they said, "Well, I guess we have got this all fixed up and we are not going to worry about it any more."

Do you know what is going to happen about these troublesome problems in this day we are living in now? We are going to solve them too inevitably, I promise you, and then we will look for something else to worry about.

This is a wonderful world in which we are living and I see no reason for all this idea that the woes of modern living just press down on us so heavily. Isn't it a lot of fun? You people who tend to say, "I wish I were dead," if you begin to feel a little sick you call for a doctor pretty quick! After all, this business of living in this day in which we live is pretty nice.

I was invited to speak to some bankers down here last year. I thought that bankers needed a little optimism and I had fixed up a speech along that line. When I got there I was a little bit embarrassed to find that preceding me on the program they had scheduled the economist of the Federal Reserve Board. Gosh! Do you know what that guy did? He got up and told them a lot of things that I was going to tell them except he had the facts and figures to prove it. I want to quote one suggestion that he made. It is not my idea; this is his.

He said, "You think back fifty years, remember what it was like fifty years ago." That was just when automobiles were getting started; the top speed, I guess, was about 15 miles an hour. It was before radio, before airplanes, before television. "Think of the progress that has been made in the last fifty years." Then says the economist of the Federal Reserve Board, which was echoed just a month or so ago by General Sarnoff of RCA, "It seems inevitable that the progress of the next fifty years will surpass the progress of the last fifty years."

What is going to happen? Heavens, I don't know! Those people fifty years ago didn't either. They thought they were through. Here we are with all the possibilities of electronics. We are just beginning to glimpse some of the possibilities of atomic power in its peacetime application. Why, I envy those girls at the college!

During the war we had a woman of national reputation come and speak to the girls at the college. She got up and she said, "You know, girls, I want you to know my heart bleeds for you as you are going through your college experience in these tragic days." If I had not been under compulsion of maintaining my presidential dignity I would have said "Nuts!"

You still hear this type of thing in commencement addresses. Last June I read of national leaders that got up before graduating classes in high school and college and apologized to those young people for the mess that our generation had made of the world and sympathized with them that they had to go out and live in this mess and to endure all the woes that were inevitably coming to them.

It isn't true. Those young people are going to find a world that is so much better than the world in which you and I have lived that it isn't even funny. The Golden Age is still before us. We should get away from this idea that catastrophe is hanging over us.

We have people in Jenkintown that every time an automobile backfires they think it is Joe dropping an atom bomb. That wasn't a slip of the tongue, either, because that crowd doesn't even know that Joe is dead!

I have a story that I tell every chance I get. If it doesn't fit I drag it in, but it fits here. The next time someone comes around telling you about the woes of living, about how civilization is tottering over the brink into the abyss, humanity is committing suicide, it is five minutes to twelve, the end of the world, all that bunk, I wish you would tell them the story of the two men that were climbing a peak in the Swiss Alps, a peak that was so high that they had to spend a night along the side of the peak before pushing on to the top. They found a little ledge about three feet wide. One of the men was a novice who had never been in the mountains before and he was pretty nervous. He kept thinking about the thousand feet drop over the side. He was awakened by cracking, crashing and rumbling in the mountain tops and he was thoroughly frightened. He woke the older man and said, "I believe the world is coming to an end." The older man heard the cracking, crashing and rumbling and he knew what had happened. The first rays of the morning sun came around the peaks to the east and touched the peaks to the west and caused the ice to heat and crack, and then the peaks would echo and reecho that cracking sound and set up that reverberation. He knew it was the effect of the sun and he said, "Be calm, lie down. What you hear is not the end of the world; it is the dawn of a new

Men and women, I just suggest that we all thank God that we have the privilege right where we are in our own jobs in our own communities of doing what we can to usher in that dawn so that our children and our grandchildren will have the privilege of living in the glory of it.

The Unrecognized Interdependence of Dentistry and Medicine

JOHN OPPIE McCALL, D.D.S. New York, N.Y.

GIES IN 1926 DECLARED that dentistry is the health service equivalent of a speciality of medicine. This was by way of saying that dentistry is a part of medicine and that physicians and dentists should work together as a team in caring for their patients.

Unfortunately the course of practice in the intervening years indicates that instead of the development of a mutual recognition that dentistry is a health service and that there is a necessary interdependence of the two professions, there is in fact a gap between them, a lack of a jointly shared opinion as to the relation of each to the other, and an incomplete integration of their respective services.

What is not fully realized is the fact that neither profession can function fully without the other. Lacking this realization the present situation is that each is part of an alliance incompletely fulfilled, a situation which is harmful to both professions and which in many instances results in their giving less than optimal care to their patients.

TEETH A PART OF THE BODY

It is understood in dentistry but not always appreciated that the teeth and their surrounding tissues are vital structures and are an integral part of the body. Actually the teeth have a reciprocal participation in the general functions of the digestive, circulatory and nervous systems. Their health and integrity are dependent fundamentally on proper body nutrition and good body health. Systemic disease may adversely affect the health of the oral tissues and the teeth, when diseased or lost through disease, may affect the health of the body adversely.

DENTISTRY A HEALTH SERVICE

Is dentistry a health service? And if so, what are the conditions which demonstrate that fact and indicate that dental care is needed for body health or that systemic disease is affecting dental health?

By way of bringing the subject into focus and for purpose of emphasis it may be well to mention some of the conditions, all familiar to dentists, in which the interdependence of mouth and body may be illustrated. Some are of the gravest significance, others less serious but nevertheless affecting health, comfort and outlook on life.

- a) Diseases originating in the mouth which may cause death. Cancer is the outstanding example but dento-alveolar abscesses, if neglected, may also have a fatal termination.
- b) Chronic infections in the periapical and periodontal tissues which may cause or markedly influence the course of disease in eyes, heart, kidneys and other organs.
- c) Malrelation of the jaws which may give rise to pain in and around the temporomandibular joint, frequently with accompanying headaches and/or other disturbances of the head and neck.
- d) Vitamin and other dietary deficiencies which may affect the health of the gingivae and alveolar bone, leading to deep periodontal disease. Other mouth tissues may be affected as well.
- e) Systemic diseases, diabetes for example, which may lead to gingival disease or seriously limit the success of periodontal treatment.
- f) Malocclusion which may affect speech and may be disfiguring, thus causing serious psychic trauma.

Obscuring the significance of these relationships for dentists and physicians is the fact that in the daily performance of the procedures required to restore mouth health the dentist must spend much of his time in essentially mechanical operations. The day-long performance of such operations readily diverts his attention from the consideration of the underlying biological processes involved. The physician is not confronted with a corresponding situation when examining and prescribing for a patient, hence is able to concentrate completely on the biological and pathological aspects of his cases.

THE FUNCTION OF DENTISTRY

The function of dentistry is to safeguard mouth health. This includes both the prevention and treatment of oral disorders. These functions have, in effect, been assigned to dentistry by medicine which cannot, as a practical matter, perform them itself, even though the sequelae of oral diseases often are seen in other parts of the body.

This assignment of special function places upon dentistry a responsibility which it must discharge through its concept and mode of practice.

Unfortunately dentistry does not today, as indicated by views expressed by some leaders in practice and education, accept its status as a health service specialty in the broad sense of the term. This affects its standing in the eyes of medicine to the psychological detriment of dentistry and the failure of medicine to call on dentistry to the extent often needed.

As to the public—their attitude toward dental care in relation to general health is negative, this being based on lack of understanding of the effects, often remote in terms of time, of dental disease. Thus, people neglect their teeth except when in pain or when appearance is threatened.

DENTAL AND MEDICAL EDUCATION

If the current thinking of a large proportion of practicing dentists is a true reflection of the kind of indoctrination received in undergraduate years, it seems clear that dental colleges, in general, do not make the relationship of dental to general health, and of dental care to medical care, a basic and dynamic part of their educational program. Courses in dental medicine are offered in many dental colleges, but these seem not to influence the thinking of undergraduates as to their real function as oral physicians. Emphasis still is on repair of the ravages of dental disease as a local problem.

Medical colleges, in general, neglect dental subjects almost completely in undergraduate teaching. Thus their graduates have no background of information as to the relationship of the teeth to the rest of the body. This is the basic reason for the existing gap between the two professions, since it is not too much to say that it is in the colleges that the pattern of thinking and action is set which will be followed later in practice.

The question arises—how did this situation come about? Careful reflection indicates that the real responsibility falls on the shoulders of those who are credited with founding dentistry as a profession. When Hayden and Harris established the first dental college as a separate institution it was not because they were rebuffed by medicine as has so often been claimed, but because they believed that it would be best for dentistry to set up its own educational program,

one designed especially for training in that field. What was undoubtedly of great value in some phases of training for dentistry has proved to have serious disadvantages in others. The separation was too complete.

How to Meet the Need

What are the problems which will confront dentistry if and when it undertakes to raise its sights for the advances so urgently needed? What can and should be done?

First, it will be necessary to convince the dental profession as a whole that dentistry is truly a health service and is not something apart from medicine. Equally needed is an effort to demonstrate to medicine the closeness of relationship of bodily and dental pathological conditions and the harm that people suffer as a result of the presence of disease in their mouths.

With regard to a program—it is clear that dentistry cannot and in fact should not attempt to "go it alone" in the effort toward improvement of the situation. And, equally, it seems clear that medicine as now constituted cannot be expected, on its own, to undertake an educational job in an area which it now feels is outside its province. Medical practitioners and medical educators believe they have a big enough job to do as it is, in their efforts to solve the acute medical problems that confront them.

It would seem that the first step should be to assemble in one document all known facts that attest medico-dental interdependence and bring these facts to the attention of medical and dental practitioners and educators. This document should point up decisively the need for closer cooperation between the two professions and suggest the educational procedures needed for its accomplishment.

Research also is needed to determine points of interdependence not now fully realized and accepted. Among studies urgently needed is one on focal infection. This phase of the medico-dental problem is on "dead center" at present in both professions after the occurrence of violent "swings of the pendulum" toward each extreme, for and against. The importance of this subject depends not only on the seriousness of some of the systemic disease conditions which seem to be traceable to focal infections but on the high rate of incidence of such infections in the population.

A look forward into dental and medical education should be

taken at an early date. Despite advances made in some universities there is need for setting up a new program of properly integrated medical and dental education. This program should call for joint class room and laboratory work for dental and medical students to the extent feasible for both groups, and a certain amount of attendance of each group in the clinics of the other and jointly in the hospital. There are both practical and psychological objectives in such a program. It does not call for any relaxation in developing technical excellence in dental procedures in the dental student.

This project should be carried on in a university in which whole hearted cooperation could be assured; the details of method could be worked by men of broad understanding and conviction of the need. This educational project should serve as a pioneering effort, a pilot program. In addition, it might well be that the institution in which the educational phase of the project is carried on could be the base for such research programs as suggested above.

Neither medicine nor dentistry can undertake this program unassisted under present financial conditions. It will be necessary to enlist the aid of an interested foundation in underwriting the initial program and it will have to be understood that aid must be pledged for a sufficiently extended period to permit a thorough testing and development. It is of the greatest importance to both professions in their roles of guardians of health that such a project be inaugurated.

Unfortunately, foundations have been quite unaware of the health significance of dental care and thus have not supported dental education in proportion to their support of medical education. There is some evidence that dentistry, by its own estimate of its function, is partly to blame for this situation.

CONCLUSION

There is a gap or at least a lack of effective integration between dentistry and medicine as indicated by the daily mode of practice of a great proportion of physicians and dentists. Neither profession is entirely to blame for this state of affairs since it is largely a product of the separation of the two professions during the period of undergraduate training. Thus neither group becomes fully aware of the biologic problems of the other or knows how to approach their solu-

tion when the need for cooperative action becomes evident. Dentistry is trying to correct this situation by offering courses in oral or dental medicine. But the mechanism for effective integration of dental and medical services has not been developed. A new approach based on the concensus of thinking of leaders in both professions is needed. For the most effective integration of the two professions and development of a common point of view the educational programs of each should include a considerable amount of side-by-side training of dental and medical students.

CALENDAR OF MEETINGS

CONVOCATIONS

November 3, 1957, Miami, Fla.

November 9, 1958, Dallas, Texas

September 20, 1959, New York, N. Y.

October 16, 1960, Los Angeles, Calif.

BOARD OF REGENTS

November 2 and 4, 1957, Miami, Fla.

Temple University Celebrates

TEMPLE UNIVERSITY'S SCHOOL of Dentistry will mark the 50th anniversary of its affiliation with the University on Wednesday, May 1, with a day-long session of scientific programs. The School, formerly the Philadelphia Dental College, became a part of Temple in 1907.

The Philadelphia Dental College was organized by Dr. John H. McQuillen and several professional associates in 1862, making the Temple unit the second oldest dental school in the United States in point of continuous operation.

The School was the first to incorporate into its curriculum the study of Oral Surgery. Credit for this innovation is attributed to Professor James E. Garretson, a noted and skillful surgeon, who for many years was Dean of Faculty at the School.

On the May date, the University will award honorary Doctor of Science degrees to four noted members of the dental profession: Dr. Harry Lyons, dean of the School of Dentistry of the Medical College of Virginia, and president of the American Dental Association; Dr. Otto W. Brandhorst, secretary of the American College of Dentists, a past president of the American Dental Association, and formerly dean of the Washington University Dental School; Dr. Leslie M. FitzGerald, secretary of the American Board of Oral Surgery, and a past president of the American Dental Association, and Dr. Lester W. Burket, dean of the School of Dentistry of the University of Pennsylvania.

The degrees will be awarded at an afternoon convocation at which Dr. Lyons will speak.

The morning will be devoted to discussions by four alumni of the School. Dr. William J. Updegrave will speak on "Radiography of the Temporomandibular Joint," and Dr. Morris Foxman will talk on "Occlusal Reconstruction."

"Orthodontia in Relation to Mouth Reconstruction" will be discussed by Dr. Max Fogel, and Dr. Jack L. Bailin will speak on "Periodontia in Relation to Mouth Reconstruction."

At dinner in the Drake Hotel, Dr. Gerald D. Timmons, dean of the School, will be honored for his 15 years of service. Also to be honored are the 26 living alumni of the Class of 1907, who will receive "Golden Circle" certificates in recognition of 50 years of practice.

MINUTES OF THE MEETING OF THE BOARD OF REGENTS, FEBRUARY 3, 1957

(Abbreviated)

The Board of Regents of the American College of Dentists met in the Conrad Hilton Hotel, Chicago, Ill., on Sunday, February 3, 1957, at 9:00 a.m. Thirteen officers and regents were present. President G. D. Timmons presided.

The minutes of the Atlantic City meeting were approved.

The Secretary's report on the minutes was received.

Reports of College activities in the different areas were received from the officers and regents.

The Treasurer's report showed a balance of \$17,941.23 in the general fund as of January 30, 1957, and Government Bonds and Savings Account, \$57,080.40. The H. Edmund Friesell Endowment Fund showed a total of \$4012.62 including bonds and amount in savings account. Report received.

The Secretary reported as follows:

Deaths since the Atlantic City meeting-17

Ira C. Brownlie	Denver, Colo.	December 8, 1956
M. Edward Coberth	Baltimore, Md.	February 2, 1957
Warren S. P. Combs	Middletown, Del.	January 18, 1957
John B. Falls	Houston, Tex.	December 26, 1956
Allan T. Haran	Brooklyn, N. Y.	November 2, 1956
R. Duane Hayes	Atlanta, Ga.	December 13, 1956
Ashley M. Hewett	Oak Park, Ill.	November 28, 1956
Oscar Jacobson	New York City	November 25, 1956
Ervin A. Johnson	Vero Beach, Fla.	January 21, 1957
E. H. Johnson	Pine Bluff, Ark.	October 22, 1956
Howard B. Kirtland	San Luis Obispo, Calif.	November 15, 1956
Ewing C. McBeath	New York, N. Y.	November 13, 1956
Edward C. Mills	Columbus, Ohio	January 21, 1957
J. W. Outlaw, Sr.	Beaumont, Tex.	October 4, 1956
James Gestie Perkin	Toronto, Can.	November 6, 1956
John H. Rossman	Portland, Ore.	December 21, 1956
Chas. W. Strosnider	Columbus, Ohio	October 2, 1956

Current membership, active fellowship 2325; Honorary 23

The Board recessed at 12:15 p.m. to attend the luncheon of the Illinois Section, reconvening at 2:30 p.m.

Dr. Harold Noyes made a progress report on the studies of the

ILWU-PMA activities on the Pacific Coast. Report received. Dr. J. Ben Robinson, Chairman of the Committee on Conduct, presented the committee's report, which outlined the objectives and purposes of the Committee and plans of procedure. After broad discussions of details and some alterations, the report was received and the committee was instructed to proceed as outlined.

The Committee on By-Laws, Dr. Wm. N. Hodgkin, Chairman, reviewed the progress of this committee. Plans for submitting the proposed new Constitution and By-Laws to the membership for ratification were approved.

The following actions were taken:

It was decided that an annual ACD lectureship be established through which the ideals for professional advancement could be brought to the attention of dental students.

It was decided to present the funds representing the H. Edmund Friesell Endowment Fund to the William John Gies Foundation, thereby more actively carrying out the intent of the originator of the fund (Dr. Gies).

It was voted to establish one Teacher Training Fellowship for the year 1957-1958.

Adjournment at 6:05 p.m.

O. W. Brandhorst, Secretary

MINUTES OF CONVOCATION

Atlantic City, New Jersey (Summary)
O. W. Brandhorst, Secretary

MORNING MEETING

The morning meeting of the American College of Dentists convened in the Vernon Room of Haddon Hall, Atlantic City, N. J., on Sunday, September 30, 1956 at 9:00 o'clock. President Pruden presided. Invocation was pronounced by Canon Horace E. Perret-Gentil of Atlantic City, N. J.

EXECUTIVE SESSION

Minutes of San Francisco session were approved as read. Secretary's report was received.

The Treasurer's report was accepted. (See Treasurer's report in minutes of Board of Regents, page 30.)

Vice President Hunter S. Allen presided while President Pruden presented his address. President Pruden reviewed the year's developments, stressing particularly the activities of various committees. His report was enthusiastically received.

Dr. Charles F. Harper, Chairman of the Committee on Necrology, presented the report of this committee. (See page 21.) The audience rose for a period of silence in memory of the departed Fellows.

Dr. Fritz A. Pierson, Chairman, presented the report of the Nominating Committee, and the following officers and regents were duly elected:

President-elect
Vice-President
Treasurer
Regents

Alfred C. Young, Pittsburgh, Pa.
Thomas J. Hill, Brecksville, Ohio
William N. Hodgkin, Warrenton, Va.
Henry A. Swanson, Washington, D. C.
Austin T. Williams, Salem, Mass.

Dr. William N. Hodgkin, Chairman of the By-Laws Committee, reported that the committee had in preparation a new Constitution and By-Laws which would be submitted to the membership by mail for its consideration. Report received and plan approved.

President Pruden then closed the executive session and presented Dr. Willard C. Fleming as the Moderator of a panel discussion on "Human Relations: One More River to Cross." The following program was then presented:

Moderator: Willard C. Fleming, D.D.S., San Francisco, Calif. Chairman, Committee on Human Relations
Panelists:

Human Relations and Public Relations
Jay H. Eshleman, D.D.S., Philadelphia, Pa.
Member, Committee on Public Relations
Sows' Ears and Silk Purses
J. Wallace Forbes, D.D.S., Philadelphia, Pa.
Member, Committee on Recruitment
Dentistry's Human Relations Today
Allison Gale James, D.D.S., Beverly Hills, Calif.
Member, Committee on Dental Prosthetic Service
Ethics and Etiquette
Harry B. McCarthy, D.D.S., Dallas, Tex.
Member, Committee on Education

The meeting adjourned at 12:15 p.m.

LUNCHEON SESSION

This meeting was held in the Carolina Room of the Chalfonte Hotel, under the auspices of the New Jersey Section, with Dr. Willis R. Osmun presiding. Attendance 430.

Dr. John J. Cane introduced the speaker, The Honorable Robert C. Meyner, Governor of the State of New Jersey, who gave an eloquent address on "Dentistry's Public Responsibilities."

AFTERNOON SESSION

The afternoon meeting convened at 3:00 o'clock, after a procession of candidates, sponsors and the Board of Regents.

The convocation address was delivered by Dr. Ernest C. Colwell, Vice-President and Dean of Faculties of Emory University, who spoke on the subject "Ethics and Human Relations."

Following this address, Fellowships were conferred upon the following:

Enrique C. Aguilar, A. V. Castillo de Miramer No. 15, Lomas Reforma, Mexico City, Mexico

Galen L. Albertson, 405 St. Claire Bldg., San Jose, Calif.

J. Stafford Allen, 501 Union Trust Bldg., Providence, R. I.

Charles Calvin Alling, Wm. Beaumont Army Hospital, El Paso, Tex. (Armyregular)

Morton Amsterdam, 1913 Walnut St., Philadelphia, Pa.

Benjamin C. Amundson, 2031 West Superior St., Duluth, Minn.

Harland Walter Apfel, 1741 S. Grand Ave., San Pedro, Calif.

Paul Harrigan Asher, 3807 Washington St., Gary, Ind.

Perry Wilson Bascom, Box 229, APO 438, Tripler Army Hospital, San Francisco, Calif. (Army-regular)

Heinz O. Beck, Dental Branch, University of Texas, 6516 John Freeman, Houston, Tex.

Ira Jay Berlove, 944 Park Ave., New York, N. Y.

Matthew Besdine, 1182 Dean St., Brooklyn, N. Y.

Clarence Bouillon, 4504 Blvd. Pie IV, Montreal, Can.

D. Fortune Bourassa, 600 Cobb Bldg., Seattle, Wash.

Donald E. Bowers, 320 Ontario St., Toledo, Ohio

Ralph R. Bradshaw, 924 Lowry Medical Arts Bldg., St. Paul, Minn.

S. Charles Brecker, 2 East 54th St., New York, N. Y.

L. Walter Brown, Jr., 136 Harrison Ave., Boston, Mass.

G. Keith Brumwell, 300 Times Square Bldg., Seattle, Wash.

Lawrence Reid Burdge, 63 East Front St., Red Bank, N. J.

John Donald Burr, 97 Park Ave., Yonkers, N. Y.

Philip Burwasser, 3448 Euclid Heights Blvd., Cleveland Heights, Ohio

Harold Cafferata, 190 Mill St., Reno, Nev.

Charles Alvah Calder, 105 Main St., Dansville, N. Y.

Rolla Charles Calkin, Box 726, Guthrie, Okla.

Ralph H. Campbell, 18595 Grand River, Detroit, Mich.

Joseph Patrick Cappuccio, 1010 St. Paul St., Baltimore, Md.

Andrew F. Catania, 1 Hanson Place, Brooklyn, N. Y.

Joel Wilbur Chambers, Central Office Bldg., Mercedes, Tex.

Judge Carnell Chapman, CSCN/CHSA, Box 21, U. S. Navy 510, c/o FPO,

New York, N. Y. (Navy-regular)

Thomas W. Clune, 1282 Cranston St., Cranston, R. I.

David H. Coelho, 510 Madison Ave., New York, N. Y.

Robert E. Coleman, 308 David Whitney Bldg., Detroit, Mich.

Joe Martin Cook, 2300 Columbus Ave., Waco, Tex.

Donald Ernest Cooksey, 8004 Aberdeen Rd., Bethesda, Md. (Navy-regular)

Edward J. Cooksey, 1101 Hermann Professional Bldg., Houston, Tex.

German Sanchez Cordero, Uruapan No. 3, Mexico City, Mexico

Charles James Cornish, Paseo de la Reforma No. 510, Mexico City, Mexico

Carlos Coro, Tercera NUM 118, Vedado, Havana, Cuba

William Stephen Curran, 630 Fifth Ave., New York, N. Y.

Raymond Martin Curtner, 450 Sutter St., San Francisco, Calif.

Clifford Conrad DeFord, c/o Inspector, Naval Dental Activities, Federal Office Bldg., 90 Church St., New York, N. Y. (Navy-regular)

John H. Dawe, 810 Vineyard St., Honolulu, T. H.

Alonzo N. De Vanna, 745 Fifth Ave., New York, N. Y.

Fred J. Denton, 1003 Medical Arts Bldg., Knoxville, Tenn.

Julian Macon Dismukes, 1015 Citizens Bank and Trust Bldg., Paducah, Ky.

Haven F. Doane, 110 Professional Bldg., Detroit, Mich.

Donal H. Draper, 4809 N. Pennsylvania St., Indianapolis, Ind.

Charles P. Egoville, 4005 Chestnut St., Philadelphia, Pa.

Marvin R. Evans, University of North Carolina, School of Dentistry, Chapel Hill, N. C.

Maxwell D. Farrow, 100 Burroughs Drive, Snyder, N. Y.

Charles Russell Flink, 11 Sunnyside Ave., Westchester County, Pleasantville, N. Y.

John Calvin Foote, 2295 Oak Bay Ave., Victoria, B. C., Canada

Reuben L. Fowkes, 1245 Glendon Ave., Los Angeles, Calif.

William Charles Fowkes, 1281/2 S. Market St., Inglewood, Calif.

A. Elmer Frame, 2007 Wilshire Blvd., Los Angeles, Calif.

J. Wilfred Gallagher, Route 3, Chapel Hill, N. C.

Harold Reid Gelhaar, 286 Park St., Upper Montclair, N. J.

Norman Forbes Gerrie, 9139 McDonald Drive, Bethesda, Md. (U.S.P.H.S.)

Allan Vernon Gibbons, 69 Dorchester Road, Buffalo, N. Y.

Howard Elmer Gillette, 57 Fox St., Aurora, Ill.

John E. Gilster, 4660 Maryland Ave., St. Louis, Mo.

John McQueen Guttery, Jr., 303 1st Citizens Bldg., Dyersburg, Tenn. Walter A. Hall, Jr., 237 E. Wm. David Parkway, Metairie, La.

J. Alexander Haller, Pulaski National Bank Bldg., Pulaski, Va.

Clarence Adolph Hanson, 715 Lake St., Oak Park, Ill.

William Ross Harkins, 222 Curtain St., Osceola Mills, Pa.

Joseph T. Hartsook, University of Michigan, Ann Arbor, Mich.

David Chase Hazard, Dental Service, U. S. Army Hospital, Ft. Dix, N. J. (Army-regular)

William Joseph Hogan, 3661 White Plains Ave., New York, N. Y.

James William Howard, 34-A Main St., Franklin, Mass.

James W. Huckelberry, 306 Hume Mansur Bldg., Indianapolis, Ind. Raymond Frank Huebsch, U. S. Naval Hospital, Philadelphia, Pa. (Navy-

regular)

Dudley Robert Isom, 2311 Line Ave., Shreveport, La.

James J. Ivory, 100 Central Ave., St. George, Staten Island, N. Y.

Charles H. Jamieson, 563 David Whitney Bldg., Detroit, Mich.

Joseph Rudolph Jarabak, 230-165th St., Hammond, Indiana

Benjamin Franklin Johnson, Wausa, Nebraska

L. Roy Johnston, 473 Main St., Greenfield, Mass.

Frank W. Jordan, 866 Starks Bldg., Louisville, Ky.

Robert Jordan, 310 Medical Arts Bldg., Atlanta, Ga.

Anthony K. Kaires, U. S. Naval Training Center, San Diego, Calif. (Navy-regular)

J. Henry Kaiser, 196 E. State St., Columbus, Ohio

Dwight R. Kinsley, 4907 Clark Ave., Cleveland, Ohio

Wallace N. Kirby, 935 Curtiss St., Downers Grove, Ill.

Ira Edward Klein, 730 Fifth Ave., New York, N. Y.

Jack Kreutzer, 2 College St., Toronto, Can.

Alfred A. Lanza, 599 Fifth Ave., New York, N. Y.

P. Louis Lepine, 614 Medical Arts Bldg., Montreal, Can.

S. Wah Leung, University of Pittsburgh, School of Dentistry, Pittsburgh, Pa.

E. T. Lewis, 5112 Jenkins Arcade, Pittsburgh, Pa.

Louis Joseph Lodico, 452 W. Church St., Elmira, N. Y.

Ross Eugene Long, 26 N. Lime St., Lancaster, Pa.

Wilfred H. Louwien, 1514 Medical Arts Bldg., Dallas, Tex.

Winston Vancourt Lyon, 5 Marescaux Road, Cross Roads, Jamaica, B. W. I.

Robert B. Lytle, 4520 Rosbury Drive, Bethesda, Md. (Navy-regular)

William Duncan MacIntosh, 506 Industrial Bank Bldg., Providence, R. I.

John S. McQuade, 2801 Pacific Ave., Atlantic City, N. J.

Ray Arthur Maddox, Jr., 241 Beach St., Abilene, Tex. Gordon R. Maitland, 1041 David Whitney Bldg., Detroit, Mich.

Victor B. Marquer, 2213 S. Carrollton Ave., New Orleans, La.

Kenneth C. Marshall, 35 N. Central, Clayton, Mo.

Byron J. May, 25 East Washington St., Chicago, Ill.

Anthony S. Mecca, 83 Charles St., New York, N. Y.

William Arthur Morinville, 156 Broadway, Pawtucket, R. I.

Joe Hall Morris, 924 Madison Ave., Memphis, Tenn.

Arthur H. Morrison, 2 Fifth Ave., New York, N. Y.

Walter A. H. Mosmann, 70 Anderson St., Hackensack, N. J.

Lawrence Lee Mulcahy, 401 E. Main St., Batavia, N. Y.

Robert Gordon Murphy, Medical Dental Center, Missoula, Mont.

William J. Murphy, 151 Park Ave., Mt. Vernon, N. Y.

Edward W. Neenan, 945 Columbian Ave., Oak Park, Ill. (Veterans Administration)

Arne Gabriel Nielsen, 6810 Wilson Lane, Bethesda, Md. (Navy-regular)

Charles Standish O'Grady, 2114 Forest Glen Road, Silver Spring, Md. (U. S. Air Force-regular)

John A. O'Keefe, 1801 K. St., N.W., Washington, D. C.

Eli Olech, 334 Roger Williams Ave., Highland Park, Ill.

Edmund S. Olsen, Jr., Walter Reed Hospital, Washington, D. C. (Armyregular)

David Lynn Openshaw, 727 W. 7th St., Los Angeles, Calif.

Carl A. Ostrom, 5107 Danbury Rd., Bethesda, Md. (Navy-regular) Dale C. Over, 603 First Western Bank Bldg., Pasadena, Calif. William J. Palanky, 995 S. Broad St., Trenton, N. J. Douglas B. Parker, 6363 St. Charles St., New Orleans, La. Cassius E. Paul, 201 W. 15th St., Santa Ana, Calif. Ben W. Pavone, 3045 Telegraph Ave., Berkeley, Calif. Gus Pinkerton, 1000 Hospital Drive, Tyler, Tex. Fred Owen Pitney, 608 Medical Arts Bldg., Oklahoma City, Okla. John Stafford Pittman, 113 E. Market St., Greenwood, Miss. Marvin B. Porter, 705 Wilma Bldg., Missoula, Mont. Dalzell J. Potter, 1315 23rd Ave., San Francisco, Calif. Thomas F. Powers, 819 Park Ave., Plainfield, N. J. Frank Wm. Prichard, 1308 Sterick Bldg., Memphis, Tenn. G. Thomas Quigg, 450 Sutter St., San Francisco, Calif. Kenneth V. Randolph, 4500 Pen Lucy Road, Baltimore, Md. Alfred Louis Rehfield, 2487 Fort St., Wyandotte, Mich. Herman K. Rendtorff, Bu. Medicine and Surgery, Pearl and Sands St., Brooklyn, N. Y. (Navy-regular) O. Lee Ricker, 406 Loraine Bldg., Grand Rapids, Mich. Harry Milton Rode, 441 Gainsboro Road, Drexel Hill, Pa. Solomon N. Rosenstein, 630 West 168th St., New York, N. Y. Gordon H. Rovelstad, U. S. Naval Training Center, Bainbridge, Md. (Navy-Alfred Gordon Rowell, 217 Macquarie St., Sydney, Australia Roberto M. Ruff, Niza No. 6, Mexico City, Mexico Edwin A. Saeger, 6047 Jenkins Arcade, Pittsburgh, Pa. Wm. P. Schoen, Jr., 6355 Broadway, Chicago, Ill. L. Laszlo Schwartz, 2 East 54th St., New York, N. Y. Galen Roy Shaver, Dental Division, Bu. Medicine and Surgery, Dept. of the Navy, Washington, D. C. (Navy-regular) Milton Siskin, University of Tennessee, College of Dentistry, Memphis, Tenn. William Bernard Smith, Jr., 346 State St., Albany, N. Y. Hollis C. Stevenson, 66-A Broad St., Plattsburg, N. Y. George G. Stewart, 1310 Medical Arts Bldg., Philadelphia, Pa. Edward C. Stillwell, Jr., Arcade Bldg., Glen Ridge, N. J.

Lewis Riddell Stowe, 630 West 168th St., New York, N. Y. Samuel Stulberg, 17316 Livernois Ave., Detroit, Mich. Henry M. Swenson, 1121 W. Michigan Ave., Indianapolis, Ind. Douglas M. Teal, 210 S. Main St., Yale, Mich. Phillip John Tennis, 3875 Wilshire Blvd., Los Angeles, Calif. Arthur John Terrill, 201 Medical Arts Bldg., Great Falls, Mont. Richard W. Tiecke, 311 East Chicago Ave., Chicago, Ill. W. Ward Tracy, 9 Rockefeller Plaza, New York, N. Y. Ferdinand Arthur Tuoti, 650 Main St., New Rochelle, N. Y. Wm. M. Tweed, 805 Valley Bank Bldg., Tucson, Ariz. Philip George Vierheller, Jr., 818 Olive St., St. Louis, Mo. William F. Vosseler, 1537 Wittlou Ave., Cincinnati, Ohio Edward C. Wach, 5903 S. Kedzie Ave., Chicago, Ill. Harry N. Wagner, Morgan Bldg., Henryetta, Okla. Charles A. Waldron, 4559 Scott Ave., St. Louis, Mo.

Hollis Oscar Warrick, Broadway Tower, Enid, Okla.

Harry J. Watson, Sr., 231 W. Wisconsin Ave., Milwaukee, Wis.

Paul G. Welles, 2493 Collingwood Ave., Toledo, Ohio

Albert Perry Westfall, 2702 Westheimer, Houston, Tex.

Merrill G. Wheatcroft, Naval Dental School, Bethesda, Md. (Navy-regular) Collister M. Wheeler, Dept. of the Navy, Bu. Med. and Surgery, Washington, D. C. (Navy-regular)

Edmond A. Willis, 115 East 4th St., Owensboro, Ky.

William Thomas Williams, Dental Section, Hdq., First Army, Governors Island, N. Y. (Army-regular)

John Boyd Wilson, 1427 San Marino Ave., San Marino, Calif.

John Robert Wilson, 16 East Henderson Road, Columbus, Ohio

William Carl Wohlfarth, Jr., USS Arcadia (AD-23) FPO, New York, N. Y. (Navy-regular)

J. Garnett Yearwood, Jr., 3826 Southern Ave., Shreveport, La. Joseph B. Zielinski, 3147 Logan Square, Chicago, Ill.

Honorary fellowships were conferred upon Dr. Wilton M. Krogman of Philadelphia, Pa., anthropologist, and Dr. Willis A. Sutton, of Atlanta, Ga., educator.

The William John Gies Award for outstanding service was conferred upon Dr. Charles F. Harper of Jersey City, N. J., and Dr. J. Ben Robinson of Morgantown, W. Va.

Following the recessional, a reception was held for new Fellows in the English Lounge.

EVENING MEETING

The evening meeting, held in the Vernon Room, convened at 7:00 o'clock with a dinner. Six hundred were present. President Pruden presided. He called upon Mr. Duane Moen, Director of Economic Research and Statistics of the American Dental Association, who presented the following visitors:

From Buenos Aires, Argentina, Dr. Enrique Muller, official representative of the Argentine Dental Association.

From Montevideo, Uruguay, Dr. Kavier Pietropinto, who represented the Uruguay Dental School and the Uruguayan Dental Society.

Dr. A. K. Ovadia, from Rome, Italy, who represented the Rome Dental Congress. Dr. Ovadia is Vice-President of the Rome District Dental Society.

Dr. and Mrs. Enrique Aguilar, of Mexico City, Mexico. Dr. Aguilar is past president of the Mexican Dental Association.

Also from Mexico City, Dr. and Mrs. G. Sanchez Cordero. Dr. Cordero is also a past president of the Mexico Dental Association.

 Dr. and Mrs. Charles J. Cornish of Mexico City. Dr. Cornish is a member of the committee on international relations for the Mexico Dental Association.
 Dr. Roberto Ruff of Mexico City, President-Elect of the Mexico Dental

Association.

From the Philippine Islands were Lt. Col. and Mrs. Vivencio P. Santos.

Dr. Santos is Dental Surgeon of the Philippine Army Training Command. Dr. Sam Karlstrom from Galve, Sweden.

Dr. Maschik Gasso from the Dominican Republic, chairman of the committee to promote the second Pan-American Odontological Congress.

Also from the Dominican Republic, Dr. Ramon E. Mena, an official delegate of the Dominican Dental Association.

Also from the Dominican Republic, Dr. Pedro Olavarietta, an official delegate of the Dominican Dental Association.

President Pruden presented other guests and the officers and regents. He declared the newly elected officers duly installed and turned the gavel over to his successor, Dr. Gerald D. Timmons. The new officers and regents were:

President Gerald D. Timmons, Philadelphia, Pa.
President-Elect Alfred C. Young, Pittsburgh, Pa.
Vice-President Thomas J. Hill, Brecksville, Ohio
William N. Hodgkin, Warrenton, Va.
Regents Henry A. Swanson, Washington, D. C.
Austin T. Williams, Salem, Mass.

President Timmons called upon Dr. Fritz A. Pierson, who presented the American College of Dentists' Service Key to retiring President Pruden and Secretary Brandhorst. Both expressed appreciation.

President Timmons presented his inaugural address and announced his committee appointments.

President Timmons then called upon Dr. Raymon Kistler, President of Beaver College, Jenkintown, Pa., who spoke on "The Joys and Woes of Modern Living."

Adjournment at 9:50 p.m.

MINUTES OF SESSIONS OF BOARD OF REGENTS

(Summary)

FIRST MEETING

The Board of Regents met Saturday, September 29, 1956 at 9:00 a.m., in Haddon Hall, Atlantic City, N. J., with Dr. Pruden presiding. Fourteen members of the board were present.

The minutes of the February 5, 1956 session were approved.

Reports of Officers: Officers and regents reported on College activities in their areas.

The Secretary reported on ad-interim activities of the Board, fellowships to be conferred, correspondence, etc.

The Treasurer reported as follows:

General	Fund.
General	L'una.

\$11,415.66 311.36	
11,104.30 38.000.00	
19,350.47	68,454.77
7	
	3,964.60
	4,040.00
	76,459.37
	38,000.00

Report received.

Reports of Committees:

The following committees reported on their activities through their chairmen:

Auxiliary Dental Service	Ethelbert Lovett, Chairman
Research	Thomas J. Hill, Chairman
Human Relations	Willard C. Fleming, Chairman
Continuing Educational Efforts	Willard Ogle, Chairman
Socio-Economics	Thomas R. Marshall, Chairman
Public Relations	Allen O. Gruebbel, Chairman
	(Presented by Marion F. Jarrell)
Journalism	L. E. Kurth, Chairman

Adjournment for luncheon at 12:15 p.m.

SECOND MEETING

The Board of Regents reconvened at 1:00 p.m. with fourteen members present.

Reports of committees (continued):

Recruitment	Ralph J. Bowman, Chairman
Preventive Service	Walter J. Pelton, Chairman
Dental Prosthetic Service	H. L. Esterberg, Chairman (Presented by Luzerne G. Jordan)
Education	Roy G. Ellis, Chairman
Financial Aid to Dental Education	Fred B. Olds, Chairman (Pre-
	sented by Secretary Brandhorst)

These reports were received with thanks and accompanying recommendations approved.

Board Committees:

Development: Chairman Timmons reported that this committee was "standing by" while evaluating present committee activities. He recommended the appointment of a Committee on Conduct. Recommendation approved.

Section Activities: The Secretary presented a summary of Section activities for the past year. Report received.

I.L.W.U-P.M.A. Studies: The Secretary briefly reported on the I.L.W.U-P.M.A. studies. Dr. Noyes was asked to present a more detailed report at the February meeting.

Adjournment at 6:00 p.m.

THIRD MEETING

The third meeting was called to order at 7:30 p.m., by President Pruden. Twelve members were present.

The budget for July 1, 1956 to June 30, 1957 was adopted.

The request of the Fellows in the State of Washington to be recognized as a Section was granted.

The Board voted to increase the subscription rate of the JOURNAL to \$5.00 per year.

It was voted that a News Letter plan be developed to keep the members informed of activities.

Adjournment at 10:00 p.m.

FOURTH MEETING

The fourth meeting of the Board of Regents convened at 3:00 p.m. on Monday, October 1, 1956, in Haddon Hall, with President Timmons presiding. This was the first meeting of the new Board. Fourteen members were present.

President Timmons announced the following committee appointments:

Auxiliary Dental Service

Bert E. Anderson, Seattle, Wash. (1961)

Conduct

J. Ben Robinson, Chairman, Morgantown, W. Va. (1957)
Fritz A. Pierson, Vice-Chairman, Lincoln, Neb. (1958)
Ernest N. Bach, Toledo, Ohio (1959)
Willard C. Fleming, San Francisco, Calif. (1960)
Kenneth C. Pruden, Paterson, N. J. (1961)

Continuing Educational Effort

Alton W. Moore, Seattle, Wash. (1961)

Education

William J. Simon, Iowa City, Ia. (1961)

Financial Aid to Dental Education

William Dwight Curtiss, Washington, D. C. (1960)

Raymond J. Nagle, New York, N. Y. (1961)

Health Relations

Stanley A. Lovestedt, Rochester, Minn. (1960) Frederick H. Brophy, New York, N. Y. (1961)

Human Relations

Byron W. Bailey, Hanover, N. H. (1961)

Journalism

Isaac Sissman, Pittsburgh, Pa. (1961)

Preventive Service

Alva S. Appleby, Skowhegan, Maine (1960) Carl J. Stark, Cleveland, Ohio (1961)

Dental Prosthetic Service

Walter E. Dundon (1961)

Public Relations

Leon J. Gauchat, Kenmore, N. Y. (1960) Elmer Ebert, Chicago, Ill. (1961)

Recruitment

Drexel A. Boyd, Indianapolis, Ind. (1961)

Research

Holmes T. Knighton, Richmond, Va. (1961)

Socio-Economics

J. Claude Earnest, Monroe, La. (1961)

Necrology (one year appointment)

Coleman T. Brown, Tampa, Fla., Chairman

Robt. P. Thomas, Louisville, Ky.

E. Gaither Bumgardner, Columbia, S. C.

Nominating (one year appointment)

Willard C. Fleming, San Francisco, Calif., Chairman

Howard H. Burkart, Coral Gables, Fla.

Arthur W. Easton, Norway, Maine

George S. Easton, Iowa City, Ia.

Leo J. Schoeny, New Orleans, La.

The following were appointed to the positions indicated:

Editor

Historian

Alfred E. Seyler, Detroit, Mich.

Contributing Editors:

John E. Gurley, San Francisco, Calif. Robert A. Colby, Bethesda, Md.

Wm. P. Schoen, Jr., Chicago, Ill.

Adjournment at 5:30 p.m.

The Life of Charles Henry Land (1847-1922)*

L. LASZLO SCHWARTZ, D.D.S.**
New York, N. Y.



CHARLES H. LAND in his laboratory circa 1915.



CHARLES H. LAND and his grandson, CHARLES A. LINDBERGH, May, 1905, Detroit.

WHEREIN LIES THE MEANING of the life of Charles Henry Land? Can it be told in a short sketch? Does it require a full length book? Or can it be told at all?

Of one thing we can be sure. His life did not revolve about a single axis, not even about the porcelain jacket crown—that quintessence of the dental art, so perfect that the art itself was beyond detection. This achievement, important though it was, was but one

^{*} Presented before the Fifth Annual Meeting of the American Academy of the History of Dentistry, September 28, 1956. Atlantic City, New Jersey, as a preface to a full length biography now in preparation.

^{**} Clinical Professor of Dentistry, School of Dental and Oral Surgery, Faculty of Medicine, Columbia University.

of the many axes about which revolved the constellation of ceaseless movements comprising the life of Land.

For Land, art was no end in itself. It stemmed from science and aimed for humanity. Preserving the vitality of the pulp of the tooth was as important as restoring a cosmetic crown. The center of Land's universe was neither his insatiable scientific curiosity nor his unusual dexterity. These were but satellites to his humanity—the unfaltering wish to make life happier for his fellow-man.

Understanding the directions of Land's life and locating the centers about which they moved may not reveal its inner meaning. Even with the advantages of a wealth of documentary material and the help of an unusually cooperative and objective family, I sometimes feel that we may not fully uncover the source of the genius of this shy and sensitive man. Simply because he belongs to that mysterious aristocracy which, for want of a better term, we call the creative personality. A phenomenon, which in spite of the advances of modern psychological science, still confounds it.

THE EARLY YEARS

If we are to attempt to penetrate this mystery we must begin in 1847 in an area then called Upper Canada but now known as the Province of Ontario. Here in a log cabin near the village of Simcoe, Charles Land was born. Two older brothers had been born in the city of Hamilton where Robert Land, his great-grandfather, had been the first settler. He had given up, because of his adherence to loyalist principle, substantial holdings in Pennsylvania. During the American Revolution, he had become separated from his wife Phoebe Scott. But she, a woman of great persistence, never gave up hope and finally found her husband after a search of many years. The reunited family started life anew in Canada and before long repaired their fortunes.

It seems that Charles Land's father, John Scott Land, was not content to maintain the sizable holdings in Hamilton which he had inherited. Probably because he had also inherited the Land love of adventure, he moved to the frontier area where Charles and a younger brother were born.

Before Charles was three years old his mother died. The family returned to Hamilton where in time his father married his mother's sister, the aunt becoming the step-mother. Before long the family was enlarged through the birth of a step-brother and step-sister. The father's venture into the wholesale grocery business failed. Attracted by the opportunities in the American West, the family moved to Keokuk, Iowa. Hopes for another business opportunity did not materialize and the family was on the move again, first to New Orleans and then to New York City.

Meanwhile, in 1859, silver was discovered in Nevada and Colorado. The father, caught up in the fever, left to make his fortune. He never returned. On the fourth of July of 1861 he wrote a letter, probably to Frank the oldest son, bidding him farewell and asking him to care for the family. But by the time the letter arrived, Frank had enlisted and was serving in the Army of the Potomac under General McClellan. The responsibility fell on Charles' shoulders. He carried it as best he could, selling newspapers on the streets of New York.

The family returned to Canada. Here, in the city of Brantford, Ontario, Charles served as a junior hand to a druggist. However, he was a dextrous youth and was soon drawn to dentistry. By 1868 he had served over a year's preceptorship with Dr. J. B. Meacham. Armed with his certificate and letters of recommendation from his employers in pharmacy, Charles left for Chicago.

CHICAGO

Land's choice of Chicago was probably influenced by personal as well as professional considerations. After the Civil War, Frank, his oldest brother, had settled in Chicago. Besides, American dentistry, with the growth of the country, had moved westward from the large cities of the Atlantic seaboard. By 1845, five years after the birth of a formal profession in Baltimore, the Ohio College of Dental Surgeons had been founded. Twenty years later, following the Civil War, Chicago had become transformed from a sprawling village to a ramshackle metropolis. The growth of dentistry was equally dramatic. No one symbolized the change in the profession more clearly than Walter Webb Allport of Chicago.

It was to Allport that Land, then 20 years old, went upon his arrival in Chicago during April of 1867. Allport, since his arrival 13 years earlier, had become a leading practitioner, not only of Chicago, but also of the country—and for good reason. For Allport was one of those rare individuals in whom the development of proficiency kept pace with versatility. Master craftsman in cohesive foil, he took the position that the most important thing in the filling of teeth was not technique or material but the exercise of common sense

—that every dentist must use his own judgment. President of the preliminary convention that in 1859 organized the American Dental Association, he held unswervingly that dentistry was a specialty of medicine, founding and serving as the first president of the Chicago Microscopal Society.

In addition, Allport's success as a practitioner did not dull his sense of social responsibility. If anything, success increased his strong concern for the world, a concern which was expressed not only in his many valedictory addresses before graduating dental students, but also concretely through practical advice and help to young practitioners. In dental circles, Allport was known as the "young man's friend." Young Land had good reason to hurry to meet in life what he had already seen in photographs—the strong bearded face of a Hebrew prophet with its sternness relieved by soft kindly eyes.

Allport's stature did not suffer, as so often happens, through an actual meeting. He carefully examined the dental appliances which the young man displayed with such eagerness. He read the letters of recommendation from Canada. It was obvious that Land was already a skilled craftsman—a fine mechanical dentist. But to be an operative dentist, to work on patients, this was not as simple as working at the bench. Was there an opening in his office? Unfortunately no. He had just taken an older man, one Loomis Haskell, who had had some chair experience. Perhaps in the future but he could not say when.

Land was disappointed, but the matter did not end here. For even Allport could not know the extent of persistency of the intense young man before him. In addition to the inherited qualities of Robert Land and Phoebe Scott, Charles Land was fired by a deep need. Land wanted to be—no, had to be—an operative dentist. Not just a dental practitioner, but one like the man before him—a man who from that moment to the end of his life remained his professional father.

Some time elapsed before Land returned to see Allport again. He was not impulsive. He did not respond suddenly and violently to hurt or disappointment. Solitude healed his wounds quickly. Then thought.

Dentistry was adventurous—to make up, through art, for a failing of nature, to seek ways of stopping the destructive consequences of this failing. This was a challenge. This was exciting. But dentistry also had limitations. It was adventure, but a special kind of adventure

confined within four walls. A struggle against a deficiency of nature. Rarely her glory. No trees. No birds. No wildflowers. No butterflies. Perhaps he was wrong to even consider such imprisonment. There were opportunities for energetic and self-reliant young men in the copper country of Northern Michigan. And there Land went. But it did not take long for him to realize that though he could withstand, even enjoy, the rigors of the frontier, his sensitive nature was not equal to the boisterous vulgarity of frontiersfolk.

For a time Land worked on a farm in Indiana but wages were low and he returned to Chicago finding employment at the plant of C. H. McCormick and Brothers. But he was unhappy with factory routines and decided to see Allport again.

Allport welcomed him warmly. There was still no opening at the chair. Would Land like to work at the bench? He could supplement his income by doing gold-work for other dentists. The laboratory was his to use.

It was good to be working in dentistry again, especially with Allport. He had the opportunity to watch this great man operate. Such dexterity. With few instruments, saliva controlled by the recently-introduced rubber dam, he skillfully added pieces of cohesive gold one to another until the entire side of a front tooth, which decay had destroyed, was restored. It was thrilling to see knowledge and skill make up for a weakness of nature.

Equally exciting was the experimentation. Any mechanic could destroy the pulp. But to restore a tooth while preserving the pulp. This was different. One day, while excavating a cavity, Allport found that the decay had reached the pulp. Carefully removing all the decay, he placed a piece of periosteum over the bleeding exposed pulp, covering it gently with a sedative cement. This was more than mechanics. It was medicine and surgery. It was applied biology. More than ever Land yearned to treat patients, to keep teeth alive, to restore them, perhaps some day even without the glare of gold.

Land was busy. Working at the bench, watching Allport, delivering mechanical work to dentists throughout the city. He spent every spare moment reading avidly the extensive writings of Allport. No phase of the practice of dentistry had escaped his attention: the art of restoring and replacing teeth, the correction of their irregularities, the treatment of jaw fractures. Nor were the scientific aspects neglected: diseases of nourishment of and sensation in the dentine.

All this in addition to many discussions of professional and organizational matters. Young Land was intrigued with the "People's Dental Journal." Allport and a Dr. S. T. Creighton had founded it in 1863 with the object of providing dentists with clearly and simply written articles on dentistry for their patients. Informing the public of discovery was almost as important as the discovery itself. For how could there be progress if people were not made aware of advances in dentistry? It was strange that such an important undertaking had not won the support of the dental profession and was forced to discontinue publication within two years.

One day Land was busily soldering, blow torch in one hand, feeding flux and solder with the other, while pumping the footbellows vigorously. A figure suddenly appeared before him. It was Allport. He continued his work. Soldering was a delicate procedure. It could not be interrupted, not even for the great Allport. Land carefully examined his work. It was done well—no pitting from overheating, no beading of flux from over-use. Land extinguished his torch and looked up.

"Did you ever clean teeth?" Allport asked.

"Yes, sir. For Dr. Meacham."

"Then come with me. I have a patient for you."

The step Land then took from the laboratory was one of the most important in his life.

It was just like Allport to select General Grant's son as Land's first patient. There is a time which is just right. No sooner. No later. And Allport had become convinced that the skillful technician in his office was ready to become a great operative dentist.

Life had never been more joyous. It flowed evenly—from day to night, from work to leisure. Then back again. Challenging work and good companionship during the day. Much to think about at night.

Land quickly developed the art of using cohesive gold foil, the new material which Allport had popularized. Gold foil work demanded knowledge, skill, and concentration. But it also took time and this troubled Land. Nearly everyone suffered from dental decay—needed dental treatment. There should be a simpler way. In this respect, a silver amalgam was more effective. If only the material could be controlled—if it would not shrink and fall out of some teeth while expanding and splitting others. A Dr. Townsend had introduced a new alloy which behaved itself. But only for a time.

For if the filling material was not used up quickly, it too would go "wild." There must be a way. Perhaps even to prevent the display of metal. True art should escape detection.

There was so much to do and to think and talk about. Haskell was particularly interested in the replacement of missing teeth and Allport was particularly interested in everything. Land now had a professional father and brother. How good it was to be with them. How proudly he read in the Chicago Census Report of 1871 the entry, "Land, Charles, dentist, W. W. Allport." It was also good to be alone, to wander in the countryside and to observe the outdoors that he knew and loved. And so the summer of 1871 came to a close.

This year the air did not cool. There was a severe drought. Fires became a daily occurrence. The smoke-filled atmosphere was ominous.

The catastrophe finally struck. The Great Chicago Fire broke out. Charles Land, his step-mother, and the children escaped in a lake steamer. As they sailed, Charles Land could see the flames devouring the city. They also destroyed his bright hopes for a professional career with Allport in Chicago.

DETROIT

After a stormy voyage, the Land family arrived in Detroit. Charles Land probably intended to continue onward to Canada. There were many reasons, however, which caused the family to remain, the most compelling of which were economic. They had escaped from Chicago with but the clothes on their backs. To make matters worse, Charles had promised early payment for their passage in order to persuade the captain of the ship to permit the family to remain aboard. And Charles was one who felt responsibility keenly. Besides, Detroit was a small, attractive city with its broad tree-lined avenues spreading out like the spokes of a wheel from the pier on the north shore of the Detroit River facing Ontario. There should be an opportunity for another dentist in Detroit and here Charles Land remained.

Charles Land, like his ancestor Robert a century earlier, had to start anew. But the young dentist was not one to brood. He had, among other qualities, the persistency of Phoebe Scott who had survived the confiscation of property, the attacks of hostile Indians and neighbors as well as actual expatriation to find her lost husband and build a new and better life in upper Canada. Though Charles had

debts and responsibilities he also possessed youth and the confidence that only comes to one who sees his life's work clearly before him.

In Chicago, Land's unusual dexterity and skill as a goldworker had opened the way for him. He decided to try again. He sought the leading dentist of Detroit. The answers to his inquiries all pointed to one man, George Field.

Field had come to Detroit fifteen years earlier, like Land, without funds. He had borrowed \$60.00 in order to rent a small room to start practice. His first year's income just about paid his rent. But Field's natural ability, good training and pleasant personality soon won an excellent practice for him and when young Land came to see him he was the most prominent and successful dentist in Detroit.

Field was sympathetic with the young practitioner. He too had worked as a laboratory assistant—for Dr. Henry J. McKellops of St. Louis. The name of Allport carried great weight. He had been closely associated with Allport during the founding of the American Dental Association and knew him well.

Field arranged a meeting with George R. Thomas, with whom he had just returned from a meeting of the American Dental Association in Virginia. It was agreed that a good goldworker was needed in Detroit, and Charles was soon at work again for Field, Thomas and James H. Farnsworth, the oldest practitioner in Michigan. Charles Land was starting again but this time with his preparatory years behind him.

At the beginning, life in Detroit was lonely. Charles Land missed Allport. Field was warm and congenial and a fine dentist. But he was not Allport with his catholic interests, broad background, and zest for experiment. The loneliness was soon ended, for Land met Eva Lodge, daughter of a homeopathic physician in whose pharmacy she worked.

Pharmacy gave them a common interest and their relationship grew rapidly. Eva Lodge was one of those unusual individuals in whom tranquility developed in spite of, or perhaps because of a turbulent home atmosphere. Her father, Albert Edwin Lodge, was capable, devoted to his calling, but dogmatic and dictatorial. Though often right, he felt that he was always right and believed it to be his religious duty to enforce his will upon others, particularly upon members of his family. Emma Kissane, his first wife, worked loyally by his side particularly with his obstetrics. But her pleasure-loving

Irish nature could not be completely submerged. The clashes that ensued resulted in a rupture of the marriage.

Perhaps it was Charles Land's buoyant spirit that appealed to the Kissane in Eva. Charles was handsome, passionately dedicated to his work but with an appetite for living and a good sense of humor. Six months after Charles opened his own office in the Fall of 1874, he married Eva Lodge.

Thus Charles Land embarked simultaneously upon two careers: one as a husband, the other as a dentist. He was eminently successful in both. The success was due in no small part to his selection of a good wife, whose sober appraisal of practical affairs served to balance, without dampening Land's imagination and optimism.

Almost as an omen of the kind of problem that Land would have to face, was a subpoena he received during February of 1875, just before his marriage, charging him with infringement of the Cummings vulcanite patents which the notorious Josiah Bacon had purchased. Bacon continued to torment the dental profession with patent infringement suits until he was killed by an irate dentist in 1879, four years later. About five thousand dentists had been forced, by means of legal harassment, to accept Bacon's terms. Charles Land was one of this group. On July 29, 1875 he agreed to pay \$85.00 damages and the costs of the suit. This was the first and last time Land ever countenanced injustice, no matter what the cost in time, money, or energy.

Land's life with the growth of his family assumed a rhythm which was to continue with but few interruptions, for almost fifty years. Within four years a daughter named after his wife and son named after himself, had been born. Practice was going well but to Land dentistry was an adventure, not merely a means of making a living. In the August issue of *Johnston's Dental Miscellany* of 1877 appeared his first article describing his use of amalgam, a method based on 10 years of experimentation dispensing with the use of the mortar and pestle, thus emphasizing the importance of manipulation of this filling material. As interesting as the method itself is the insight it provides to the thinking of Land: scientific knowledge, in this case chemical, applied through constant experiment. There is no end. Discovery simply engenders new problems. The quest is the thing. Land never was trapped by his successes. Mastery of cohesive gold foil quickly led to realization of its limitations. He wrote that

he had nothing but contempt for a dentist who would keep a child in his chair two to three hours while malleting.

This feeling for the patient led to the experimentation with silver amalgam. But Land was a clinician and the fact was that many, if not most of his patients were concerned primarily with the extraction of teeth and full dentures. Thus there was ushered in a period of experimentation with nitrous oxide and other general anesthetics. His wife's discovery that this research consisted of self-administration brought it to an end!

There followed an investigation of full dentures, not simply technique and materials but basic principles. At the time suction cups were widely used based in the belief that it was atmospheric pressure that caused the retention of the upper full denture. Land in 1884 demonstrated scientifically that "Capillary attraction is the force that causes the denture to adhere." But this was no cold dispassionate presentation. The paper entitled "Capillary Dentures" was introduced with the statement that—"the thousands of abominable air spaces to be seen in every-day practice, even among some of the most prominent practitioners are such positive illustrations of ignorance as to call forth the most severe censure." This outspokenness resulted in resentment among many dentists including "some of the most prominent practitioners."

However, this view and others he held did win the admiration and wholehearted endorsement of a minority of the profession and today, a century later, with the present interest in mucostatics we can marvel at how advanced was Land's view that we should "pay more attention to augmenting the moist condition, which is the real adapting medium. . . ." We can also appreciate how ingenious were his methods of obtaining relief of the hard areas, methods which we still follow in principle today.

THE PORCELAIN EXPERIMENTS

After Land had mastered the problems of the retention and stability of full dentures his attention was drawn to the important problem of esthetics. At the time, procelain teeth were made most often in the form of section teeth. This limited the positioning of teeth during the set-up and particularly in the anterior teeth, made for uniformity. Land preferred the use of individual teeth since these would permit the variation in position so essential for cosmetics. But the individual teeth at the time had not progressed much beyond the ar-

tificial teeth, introduced fifty years previously, "French beans" as they were called to designate their source and appearance. They were poorly contoured with unnatural shades and dull and opaque in appearance. Gold fillings were often placed into them in an attempt to make the artificial teeth appear more "natural." The display of metal had long annoyed Land. "Glares like a bull's eye lamp," he snorted. Why not make artificial dentures appear natural by improving the appearance of the teeth themselves? Nature should be imitated not the disfigurement caused by man. It was towards this end that Land directed his energies.

Land had energy, perseverance, imagination and ability, and his contributions demanded all of these. Nothing was too much trouble, no expenditure too great. Arriving early at the conclusion that high-fusing porcelain was superior, he embarked on the development of suitable furnaces substituting the clean and rapid fuels, gasoline and illuminating gas, for the slow and dirty coal and coke. Finding that the gases had a deleterious effect on shades, he developed the bimuffle furnace. Then experimentation with new bodies and new methods of shading, a knowledge which had come down from his early years of self-training while soldering with base metals.

With the solution of many of the technical problems in dental ceramics, Land's imagination took hold. Why not use porcelain to hide the glare of gold, to protect the teeth, preserve the pulp and avoid the need for full dentures? First porcelain was fused on the labial and buccal aspects of a platinum swagged crown—the predecessor of the veneer crown of today. This, in time, developed into the all-porcelain jacket crown exactly as we use it today.

The need to conduct research had its effects upon the life of Charles Land and that of his family. Soon after his marriage a search was begun for quarters that would serve as dental office, research laboratory and suitable housing for his family. Adequate schooling was an important consideration. The search for the fulfillment of these needs led to much moving during the next 25 years, all within a mile of the hub of Detroit known as Grand Circus Park.

All his activities had to be under one roof. Charles Land was too busy to commute. His investigations also cost a great deal of money. The apparatus was costly and the need seemed without end. Then there was the time, not only for actual experimentation but also for the mangement of the problem cases which other dentists continued to send to him. When the economic pressure became great, as it

periodically did, his wife would patiently plead: "Charles, why must you always take care of difficult cases?" He agreed it was impractical. After all he had a fine practice in Detroit, he would settle down to business. Finding him at his desk, with his forehead wrinkled, deep in thought, concerned that she had disturbed him, his wife would ask "Anything wrong, Charles"? "It's that Smith case," he would muse, but then with his eyes brightening he would add, "Don't worry I'll find a way to lick it yet." Days later, after his wife had forgotten the incident, he would stride into the kitchen, a broad smile on his face, causing the three creases on each side of his face to fold like an accordion, and with arm outstretched, holding a piece of work that had just been fired, he would say with elation, "Tell me, Eva, isn't that a beauty?" His wife smiled. Charles would never change. He would seek new challenges as rapidly as he disposed of the old ones. Really she did not want him to change. If only there were not so many bills.

Though Charles Land was busy, he did not neglect his family. They lived well, though simply. There was always time for a chat, a talk or an outing. First the hired horse and rig, later bicycles. The fact that he worked at home helped but it was attitude rather than convenience. There was always time for conversation with a patient on any subject ranging from science to religion to politics. There was also always time to make or repair a toy for his children while the patient sat waiting in the dental chair.

Charles Land never lost his love of the outdoors. On holidays he trudged over the countryside with the family, watching birdlife and gathering mushrooms. When his work took up more and more of his time, he brought the outdoors to his small backyard by creating a garden of the wildflowers he loved. Thus life was flowing smoothly, the children were growing. He was busy with practice, research, writing and his family literally from sunrise to sunset. Then a turbulent period was ushered in, not to end for more than a decade.

THE TURBULENT YEARS

It all started innocently enough. During the spring of 1887 Charles Land received a special invitation from the secretary of the Section of Dental and Oral Surgery of the International Medical Congress inviting him to membership in its proceedings. It was understandable that Land should receive such an invitation. He had been active in the scientific sessions of dental societies; presenting essays, giving

clinics, and taking part in discussions. Land was looking forward to the Congress to be held in Washington, D. C. on September 6 when in the middle of July he received the following letter:

Dear sir: Dr. Taft, the President of Section 17, I.M. Congress, directs me to say to you that the enclosed advertisement disqualifies you to become a member of the Congress, such advertisements being a violation of the Code of Ethics.

This however, will not shut you out from exhibiting your furnace or demonstrating your work—occupying the same position as other exhibitors do.

The reply of Land was prompt and to the point. It read:

Dear sir: Referring to your favor of the 13th, I understand that the primary motive of the Code of Ethics is to prevent quackery, cheating, misrepresenting the truth, etc., and if I felt guilty of such proceedings your President's decision would be justified. On the contrary, if I am to infer that your Code of Ethics is so arbitrary as to prevent me from making a judicious use of the public press or any other legitimate way of disseminating the truth to the public, then my only resource will be to observe the rules of our profession as non-republican in spirit, and adverse to the best interest of progressive men. I regret exceedingly that such a fine line should be drawn in my case.

Under the circumstances you cannot consistently expect me to take part in

any of your sections or proceedings.

Yours truly, C. H. LAND

Thus, there was raised the basic questions as to what constitutes professional ethics. Are they narrow rules and regulations which are nothing more than the formalized etiquette of a group? Or do the ethics of a profession represent something much broader; the obligation to society including that of informing the public of developments in dentistry? In a pamphlet entitled "The Inconsistency of Our Code of Dental Ethics" Land stated that a code of ethics that prohibits the use of the public press "oversteps the bounds of reason, becomes despotic in its nature, and adverse to the best interests of progressive men." "Do they take into consideration," he asked, referring to the leaders of organized dentistry, "that thousands of people are suffering from badly decayed teeth and resorting to barbaric methods of extraction simply because you have failed to provide a literature that the public might be made aware of the rapid progress made in modern dental art?"

Looking at the controversy today it is possible to see the circumstances that caused it. Land was fighting for a principle and not for financial gain. As a student of Allport, who had founded the *People's Dental Journal*, he utilized the only means then available for the popularization of his porcelain crown. He had written prolifical-

ly and lectured widely. But aside from a small minority the profession did not herald the new era. Porcelain work was scoffed at as "quackery performed only by charlatans." One practitioner admired it privately but told Land that "he could make a lot more money plastering with silver." Some of the resistance can be understood. for example the failure to respond to the importance of Land's emphasis on the preservation of the pulp. This required the rise of the science of bacteriology and the charge of Sir William Hunter before the Faculty of Medicine of McGill University that American dentists were building "mausoleums of gold over a mass of sepsis." But this occurred in 1910 and by this time history had vindicated Charles Land. Through the efforts of Dr. Edward B. Spalding, a neighbor and student, the porcelain jacket gained acceptance. In 1909 W. A. Capon, another student, who had become Lecturer on Dental Ceramics in the University of Pennsylvania, displayed before the annual meeting of the New Jersey State Dental Society a photograph of his teacher with the words that "he has done more for the Porcelain Era than all others together." By 1905 Land was hailed as the Father of Porcelain Dentistry, and concerning his advertising, Lawrence Parmly Brown in 1933, wrote as follows:

"Such literature is now supplied by or through dental associations, in the form of newspaper articles, which are supplemented by radio talks and school exhibits. In other words, the advertising of dentistry (of dentists in general) has come to be considered an ethical service to the public. Therefore, Doctor Land was not entirely wrong."

Land was an artist and as such he wanted and needed recognition. However, even more important was his feeling for patients. This could not patiently wait for history to take its course. He had cried out in criticism on more than one occasion: against the painful application of the rubber dam, the abuse of the gold foil filling, the use of suction cups in full dentures, the dependence upon articulators. And I am sure that if he were alive today he would condemn the abuse of his contributions through their often injudicious application in so-called "mouth rehabilitation." For Land was many things in dentistry: technician, practitioner, researcher, teacher, and author. During all of this activity, however, he never forgot that he was primarily a healer.

THE CONTROVERSY WITH JONATHAN TAFT

His conflict with Jonathan Taft was understandable and even inevitable. Taft, a founder of professional dentistry in the midwest, had fought long and hard for the development of his profession. He bitterly attacked quackery and charlatanism and their favorite weapons of advertising and patents. He was revered by the profession who knew how staunchly and effectively he fought for organized dentistry. But Taft relied entirely upon the past achievements of the profession and although there was much to be proud of, there was also much to do. And as late as the turn of the century when Taft, then dean of the dental school at the University of Michigan, was asked his opinion regarding amalgam, he replied with the statement that he had never touched the filthy stuff.

An open war between Taft and Land was just a question of time. The opening gun was fired by Taft in 1887 when he cancelled, at the last minute, Land's invitation to membership in the International Medical Congress. The appearance of Land's reply, the pamphlet on the "Inconsistency of Our Code of Dental Ethics" undoubtedly irritated Taft who was hypersensitive to criticism and any breach of what he considered to be proper professional behavior. Three years later before a group of his students at the University of Michigan he made the remark that Land's methods were quackish. Word came to Land who countered with a suit of \$50,000.00 for libel. A long, costly, and bitter legal controversy followed which ended three years later in a hung jury.

It was not long before Charles Land would learn that he, like many others who were ahead of their times could not be a prophet in his own village, and that with the glow that accompanied the realization of dreams, also came loneliness. But Charles Land did what he had to do. Taft, as he saw it, because of his enormous prestige and influence stood in the way of progress. Land's actions were based on the same feelings that compelled Oliver Wendell Holmes in his fight for the acceptance of the contagiousness of puerperal fever, to hurl at leading medical authorities the following challenge:

"If I am wrong, let me be put down by such a rebuke as no rash declaimer has received since there has been a public opinion in the medical profession of America; if I am right, let doctrines which lead to professional homicide be no longer taught from the chairs of these two great institutions."

Charles Land had to pay for characteristics of his ancestors; the adherence to principle of Robert Land and the persistence of Phoebe Scott. These qualities called for sacrifice and to them he sacrificed his personal welfare. The refusal of manufacturers to

make improvements in the hydrocarbon furnace which he developed resulted in a lawsuit and ended in his bankruptcy. Again the matter of principle reappeared. He insisted on paying his creditors in full although he was not legally obligated to do so. The thought came to him that perhaps Chicago, now a metropolis, would appreciate his talents. His exhibits at the Columbia Exposition in 1892 had been well received. Losing sight of the fact that he already had a successful practice with patients coming from all over the world, he moved to Chicago. He overlooked the fact that 1898 was not 1869 and that licensure was required. His position on the ethics controversy and his libel suit against Taft did not help him and within a year, he returned to Detroit.

By now his children were grown. They too felt the Land urge for adventure. His daughter went to Little Falls, Minnesota to teach miners' children in this frontier town. Charles Henry Jr., his son, had gone to mining school. During Land's investigations he had worked alongside his father who had hoped that his son would follow in his footsteps. But the son's desires led him to prospecting in the wilds of Canada and Land believed in freedom so ardently that he practiced it in his own family.

With the start of the twentieth century, the course of Land's life, freed from much of its turbulence, flowed more smoothly. In 1902 he moved to a small frame house at 64 West Elizabeth Street. It was here that he spent the autumn of his life.

AUTUMN

Land's unfailing cheerfulness and optimism stemmed from his complete faith in dreams and children. Freed of the necessity for crusades, he could pay more attention to both.

He realized in time that the resistance to high-fusing porcelain may have arisen because of the demanding nature of the art. But there was a new world in the making. Had he not seen it at the Chicago Fair in the form of the Ingersoll watch, "The Watch That Made the Dollar Famous"? By means of mass production and the use of interchangeable parts, a reliable timepiece had been placed in the pockets of millions of Americans. A similar change was taking place in building. The giant Tuller Hotel was rising on Grand Circus Park around the corner from his house on Elizabeth Street. It was wondrous to see: prefabricated steel girders being swiftly swung into place and speedily riveted. Why not the prefabricated

porcelain jacket crown? This would enable millions to hold on to teeth otherwise destined to be lost. He worked long and carefully as was his way. But this was not the answer.

Instead of abandoning a dream, something he never did, he sought a new way of realizing it. Why not use synthetic porcelain cement? Why not develop a "cold" porcelain jacket? There was one major difficulty. The celluloid crown forms then available were not narrowed gingivally and what use was a porcelain jacket that could not reproduce normal tooth anatomy. Charles Land went to work again, with the assistance of his son who was home at the time. Before long the problem was solved and Charles Land added the modern crown form to his contributions.

Land never conceived of his cold crown, the temporary jacket of today, as a substitute for the jacket obtained with high-fusing porcelain. He never lost sight of the function of dentistry for a single moment. To him its purpose was to serve the public, not only a wealthy segment but all of the people. In 1884 in a discussion at the annual meeting of the Ohio State Dental Society at which Taft was chairman, Land, the master craftsman of the continuous gum denture pleaded for greater attention to the vulcanite denture. "There is an immense amount of work to be done by all classes of dentists." he stated, "and I think we should be more charitable to the six dollar men (dentists who made dentures for six dollars); they certainly are a blessing to the poor." But he pointed to the social responsibility of the profession when he prefaced this remark with the statement that "no man is a true dentist unless he is a whole dentist, we must neglect no part of the work on account of its having been degraded." This attitude, diametrically opposed to the position taken by Taft regarding the use of amalgam, discloses more clearly than anything else the basic difference between the two men which led to the inevitable clash.

Charles Land never gave up his efforts to improve dentistry. His active and energetic intellect could not stand still. But he had mellowed. Sixty-four West Elizabeth Street was more than a home, research laboratory, and Office. It was his fortress, and from here he did not move. Detroit could and did change. Land was intrigued by the changing world in which he lived and rapidly adapted some of his features. He wired his house for electricity and was among the first to use this new and revolutionary form of energy. But with the industrialization of central Detroit came grime. Land's ingenuity

was challenged. He built an air conditioning system. But it was in vain. The grime clogged his filters. Yet the man who in his earlier years would move periodically, now would not move at all.

Part of his contentment was derived from the frequent visits of a grandson, the son of his daughter. He was a bright, curious, and energetic lad and his grandfather, as grandfathers often do, fell in love with him. But his was no blind, doting love. It consisted of patient instruction (often while patients waited), cheerful encouragement. and then, when he thought the time was right, the responsibility of freedom. By the age of six, the boy received a rifle from his grandfather as well as free run of the laboratory. In return the grandson adored his grandfather, for he was a man who knew everything and was able to do anything with his hands. Thus the two spent many happy days together, tramping through the woods, listening to the bird calls, and prying into the secrets of nature in the laboratory with its magic machines and roaring furnaces. Though busy. he always had the time, desire and ability to enter into that marvelous world so few can penetrate; the life of a growing boy. Perhaps Land's greatest contribution was not in dentistry at all, but in the fact that his grandson, when he felt the Land urge for adventure, was confined neither by four walls or the earth itself, but took to the air. His name? Charles Augustus Lindbergh.

And thus life flowed peacefully and happily for Charles Land until 1916, when cancer struck his wife. After a lingering illness of three years, she died. Much of her husband's spirit went with her. He continued practice and his experiments. But Eva was no longer there to gently caution or warmly approve. Three years later, Charles Land found that his hands would no longer respond to the dictates of his mind. Something was wrong. He was unable to complete his cases. A check was returned from the bank, his signature could not be deciphered.

He visited a physician. "Degeneration accompanying old age," he was told, "put your affairs in order." This he did and it was not long afterwards that during his sleep, Charles Henry Land died.

Perhaps it was the degenerative sequelae of organic disease that caused his death. To the historian this does not appear to be the whole story. His wife and his work were the mainstays of his life. When these were lost, much of his life was lost, and Charles Land died.

What then is the meaning of the life of Charles Henry Land? Does it help us understand the fascination that our profession holds for the dextrous, the ingenious, and the humane? Does it explain why talented individuals who could probably make a fortune in a different calling never think of leaving dentistry? Does it point to the lesson that true scientists are never enslaved by the technology they create?

Perhaps Land's greatest art was not his dental art at all. But rather, his mastery of the most difficult of all arts; the art of enjoying life, the ability to look upon life as an adventure which is endless as long as one's horizons remain without limit. For Charles Land was never hemmed in by the booming birthplace of mass production known as Detroit. Though intrigued by the changes in life about him he never succumbed. He maintained a life of simplicity and individuality in a world changing rapidly to multiplicity and conformity. Charles Land never lost the ability to be himself and

"To see a world in a grain of sand And a heaven in a wildflower."

Report of the Necrology Committee

Atlantic City-September 30, 1956

Mr. President and Fellows of the American College of Dentists:

At this time it is the sad duty of your committee to report that during the past year, the following esteemed Fellows of the College have been "gathered to their fathers." Their names are recorded here in reverent memory of all they did during their lives to elevate the quality of our professional service, and to develop the ideals promulgated by the College.

Here, too, appears the name of the man who was not a dentist but who, more than any other individual, contributed to the professional character dentistry now enjoys. We refer, of course, to that distinguished gentleman and scholar, the late Dr. William John Gies.

"And when the stress
Which overflowed the soul was passed away,
A consciousness remained that it had left,
Deposited upon the silent shore
Of memory, images and precious thoughts
That shall not die and cannot be destroyed."

—Wordsworth

CHARLES F. HARPER, Chairman

VILRAY P. BLAIR (Opposite)
St. Louis, Mo.
1871-1955
Graduated from Washington University
School of Medicine in 1893, fellowship conferred in 1938



H. SPALDING BOTH New York, N. Y. 1888-1956 Graduated from New York University, College of Dentistry, in 1909, fellowship conferred in 1948

HAROLD KEITH BOX
Toronto, Canada
1890-1956
Graduated from Royal College of Surgeons in 1909, fellowship conferred in 1938





BERT BOYD (Opposite)
Los Angeles, Calif.
1872-1955
Graduated from University of Southern California in 1903, fellowship conferred in 1930

Frank J. Canning
Pawtucket, R. I.
1890-1956
Graduated from Baltimore College of Dental Surgery in 1912, fellowship conferred in 1950

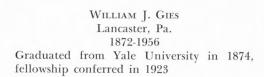


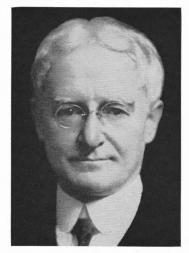
EWING B. CONNELL Chattanooga, Tenn. 1891-1956 Graduated from Vanderbilt University Dental School in 1913, fellowship conferred in 1949

ARTHUR F. DOUGLAS (Opposite)
Chattahoochee, Fla.
1878-1956
Graduated from Northwestern University
Dental School in 1903, fellowship conferred
in 1943



Athol Lee Frew
Dallas, Tex.
1879-1955
Graduated from Baltimore College of Dental Surgery in 1905, fellowship conferred in 1928







ELDON E. HARRIS (Opposite)
Austin, Tex.
1905-1955
Graduated from Baylor University, College of Dentistry in 1927, fellowship conferred in 1951

EDWARD E. HAVERSTICK
St. Louis, Mo.
1873-1955
Graduated from Washington University
School of Dentistry in 1901, fellowship conferred in 1938



CLYDE H. HEBBLE
Columbus, Ohio
1883-1956
Graduated from Ohio State University College of Dentistry in 1910, fellowship conferred in 1938

LOREN T. HUNT (Opposite)
Lincoln, Neb.
1893-1956
Graduated from University of Nebraska College of Dentistry in 1915, fellowship conferred in 1938



E. Horace Jones Cincinnati, Ohio 1898-1956 Graduated from Ohio State University College of Dentistry in 1923, fellowship conferred in 1951

PAUL H. KARCHER
Quincy, Mass.
1895-1955
Graduated from Harvard School of Dental
Medicine in 1918, fellowship conferred in
1946





CHARLES H. KENDALL (Opposite)
Milwaukee, Wis.
1894-1956
Graduated from Northwestern University
Dental School in 1919, fellowship conferred in 1948

Walter R. Levy
Jackson, Tenn.
1888-1955
Graduated from Vanderbilt University
School of Dentistry in 1911, fellowship conferred in 1940



JOHN C. METCALF
San Marino, Calif.
1892-1956
Graduated from Kansas City Western Dental College, University of Kansas City in 1916, fellowship conferred in 1949



James H. Morris (Opposite)
Poughkeepsie, N. Y.
1897-1956
Graduated from University of Pennsylvania
School of Dentistry in 1919, fellowship conferred in 1947

MAXWELL COLE MURPHY
Temple, Tex.
1899-1956
Graduated from Northwestern University
Dental School in 1921, fellowship conferred
in 1952

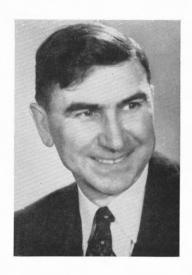


George Garnet Perdue
Detroit, Mich.
1898-1956
Graduated from Royal College of Dental
Surgery in 1920, fellowship conferred in
1951



STANLEY RICE (Opposite)
Beverly Hills, Calif.
1902-1956
Graduated from University of Southern California School of Dentistry in 1925, fellowship conferred in 1954

Carl H. Scheu Lakewood, Ohio 1892-1956 Graduated from Western Reserve School of Dentistry in 1918, fellowship conferred in 1949

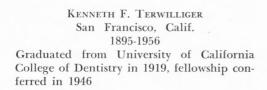


WILLIAM M. SIMKINS
Atlantic City, N. J.
-1956
Graduated from Baltimore College of Dental Surgery, in 1891, fellowship conferred in 1928

A. Hume Sprinkel (Opposite)
Staunton, Va.
1869-1956
Graduated from Baltimore College of Dental Surgery in 1891, fellowship conferred in 1939



GEORGE C. STEINMILLER
Reno, Nevada
1883-1956
Graduated from University of California
College of Dentistry in 1905, fellowship conferred in 1948

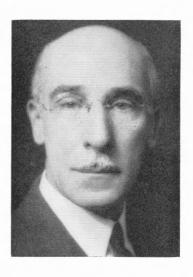






J. WARD WEAVER (Opposite)
Pleasantville, N. J.
1903-1955
Graduated from Temple University School
of Dentistry in 1925, fellowship conferred in
1953

SAMUEL MARSHALL WEAVER
Cleveland, Ohio
1875-1956
Graduated from Western Reserve University
School of Dentistry in 1899, fellowship conferred in 1938



H. F. WHITTAKER
Edmonton, Canada
1881-1956
Graduated from Chicago College of Dental Surgery in 1904, fellowship conferred in 1928

JOSEPH H. WILLIAMS (Opposite)
St. Louis, Mo.
1883-1956

Graduated from St. Louis University School of Dentistry in 1911, fellowship conferred in 1937





Lando H. Zech Seattle, Wash. -1956 Graduated from University of Oregon, The Dental School in 1923, fellowship conferred in 1950

PHOTOGRAPHS NOT AVAILABLE

Edward E. Carpenter Topeka, Kans. 1874-1956

Graduated from Kansas City Western Dental College, University of Kansas City in 1897, fellowship conferred in 1950 KENNETH I. NESBITT San Francisco, Calif. 1903-1956

Graduated from University of California, College of Dentistry in 1924, fellowship conferred in 1936

Joseph Richard Walsh Short Hills, N. J. 1897-1955

Graduated from University of Pennsylvania School of Dentistry in 1922, fellow-ship conferred in 1938

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