

# JOURNAL OF THE AMERICAN COLLEGE OF DENTISTS

Vol. 10 . . . . . SEPTEMBER, 1943 . . . . . No. 3

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Published quarterly at 99 South Van Ness Avenue, San Francisco, 3, California

By THE AMERICAN COLLEGE OF DENTISTS

Office of Publication: 350 Post Street, San Francisco, 8, California

Subscription Price: \$2.00 per Volume

Entered as Second Class Matter July 13, 1940, at the Post Office  
at San Francisco under the Act of March 3, 1879

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## AMERICAN COLLEGE OF DENTISTS

*Convocations* have been held on this schedule (since organization in *Boston*, Aug. 20 and 22, '20): (1) *Chicago*, Jan. 26, '21; (2) *Milwaukee*, Aug. 13 and 18, '21; (3) *Montreal*, Jan. 25, '22; (4) *Los Angeles*, July 16 and 19, '22; (5) *Omaha*, Jan. 23, '23; (6) *Cleveland*, Sep. 12, '23; (7) *Chicago*, Mar. 5, '24; (8) *Dallas*, Nov. 12, '24; (9) *Louisville*, Sep. 22, '25; (10) *Philadelphia*, Aug. 22, '26; (11) *Chicago*, Jan. 26, '27; (12) *Detroit*, Oct. 23, '27; (13) *Minneapolis*, Aug. 19, '28; (14) *Chicago*, Mar. 24, '29; (15) *Washington, D. C.*, Oct. 6, '29; (16) *Denver*, July 20, '30; (17) *Memphis*, Oct. 18, '31; (18) *Buffalo*, Sep. 11, '32; (19) *Chicago*, Aug. 6, '33; (20) *St. Paul*, Aug. 5, '34; (21) *New Orleans*, Nov. 3, '35; (22) *San Francisco*, July 12, '36; (23) *Atlantic City*, July 11, '37; (24) *St. Louis*, Oct. 23, '38; (25) *Milwaukee*, July 16, '39; (26) *Baltimore*, March 17, '40; (27) *Cleveland*, Sep. 8, '40; (28) *Houston*, Oct. 26, '41; (29) *Boston*, Aug. 23, '42, cancelled; Regents met in *St. Louis*, Aug. 27-28, '42. [Next Convocation to be announced.]

*Sections and dates of meetings in College year of 1942-43 (between convocations):*—(1) *Kentucky*: Sep. 14, '42. (2) *Northern California*: Sep. 17, '42. (3) *Maryland*: Sep. 18, '42. (4) *New York City*: Sep. 18, Dec. 6, '42; Feb. 19, May 28, '43. (5) *Minnesota*: Sep. 19, Dec. 9, '42; Feb. 19, May 26, '43. (6) *New England*: Sep. 17, '42. (7) *Wisconsin*: Sep. 16, '42; Mar. 21, '43. (8) *Colorado*: Sep. 14, '42; Jan. 26, '43. (9) *Pittsburgh*: Sep. 16, '42; Nov. 19, '43. (10) *Iowa*: Sep. 20, '42; May 4, '43. (11) *Illinois*: Sep. 16, Nov. 30, Dec. 18, '42; Feb. 21, May 21, '43. (12) *St. Louis*: Sep. 15, '42. (13) *Oregon*: Sep. 19, Dec. 19, '42; Feb. 6, Apr. 12, Sep. 11, '43. (14) *Texas*: Sep. 19, '42. (15) *Florida*: Sep. 19, Nov. 10, '42. (16) *Indiana*: Sep. 17, '42; May 17, '43. (17) *Southwestern*: Sep. 16, '42. (18) *Washington (D.C.)*: Sep. 17, '42; Jan. 19, '43. (19) *New Jersey*: Sep. 18, Oct. 30, '42; Jan. 14, Apr. 27, June 3, Sep. 23, '43. [Revised as of Sep. 10, 1943.]

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

*Classes of members* (each member receives the title of Fellow—"F.A.C.D."): (1) "The active members consist of dentists and others who have made notable contributions to dentistry, or who have done graduate, scientific, literary, or educational work approved by the College." (2) "Any person who, through eminent service, has promoted the advancement of dentistry, or furthered its public appreciation, may be elected to *honorary membership*."—*Constitution, Article II.*

*Forfeiture of membership*: "Membership in the College shall be automatically forfeited by members who (a) give courses of instruction in dentistry, for *remuneration*, under any condition other than those of an appointed teacher serving publicly under the auspices of a dental school, dental society, hospital, or other accredited professional or educational agency; or (b) give courses of instruction in dentistry in a privately owned undergraduate or postgraduate dental school; or in a school that is associated with an independent hospital or dispensary but is not an organic part of it; or (c) exact exorbitant fees for courses of instruction in dentistry under any auspices." . . . —*Constitution, Article II.*

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## THE ROAD TO THE FUTURE

HAROLD HILLENBRAND, D.D.S., *Chicago*<sup>1</sup>

*Associate Professor of Ethics and Social Relations, Chicago College of Dental  
Surgery: Dental School of Loyola University, Chicago*

Once again, within the short space of time that it takes for a child to grow from birth to manhood, this country is engaged in a world war. But it is not with the war itself that we will concern ourselves, because other speakers have already told you of the stern tasks and sacrifices that lie between us and ultimate victory.

Our task is to look beyond the war to the days of peace and reconstruction that will follow. But in no sense will we undertake to settle, once and for all, the myriad issues that will confront us in the postwar period. In that task, nationally and internationally, there are already engaged too many advisors, analysts, administrators, assistant directors, assistant secretaries, consultants, coordinators, directors, economists, examiners, executive directors, liaison officers, planners, prophets, secretaries, statisticians and specialists. In that catalog you will note a premeditated lack of mention of the mere observer, the capacity in which I will examine these problems.

If we are to have any notion of what the postwar period holds for us, it may be well to look to the economic and social patterns that are already evident and try to understand their significance. Let us, then, see how the pattern of the future postwar world becomes clearer if we study and understand the patterns of the past and present.

### THE CHANGING PATTERN OF ECONOMICS

It is 1800. The battles of Lexington and Concord are past but are still fresh in the minds of the young veterans as they toil in the fields of the scarred countryside. The revolution is less than a generation away. Nine out of ten American families live on farms,

<sup>1</sup>Read at the annual meeting of the Iowa State Dental Association, Des Moines, May 4, 1943.

raising their own food, making their own clothes and furnishing ninety per cent of the things needed to make themselves self-sufficient. It takes nineteen farmers to raise enough surplus food to feed one man in the city. The standard of living is primitive: tallow candles, flintlocks, homemade tools, log cabins, wells, outhouses and oxen. There is no unemployment because each man works for himself on the land. Communities are isolated because the railroads, the telegraph and the telephone, the newspapers and the radio have not yet threaded the country into one, inseparable whole. Social security rests in the people's hands, in their manual skill, in their ingenuity and in their ownership of the land. This is the economy of 1800—an economy of human energy, based on human muscles and brawn.

Then to that rugged, agricultural nation came the machines and new inventions: the reaper, the steam engine, the mowing machine, the lathe, the turbine, steel, the automobile, the typewriter, refrigerator cars and the telephone. All of these displaced human labor because they could do more work than a single man could do with his two hands. The displaced labor turned in thousands to the infant cities which sprawled, bleak and dirty, beside some river or beside the new railroad. And here they used the new machines and the new inventions to produce goods for the farms they had left and received in return the food necessary to sustain themselves in the city. This was the beginning of a new economy for America—an economy in which there was no unemployment because there was a balance between the needs of the farmer and the needs of the city dweller.

But the relentless march of the machines and inventions continued. It was accompanied by a flood of immigrants, all with hands eager for work in the new, promised land. New places had to be found for this tide of manpower if unemployment was to be prevented. So it was harnessed—not to the manufacture of necessities as before—but to the manufacture of so-called luxuries, luxuries that were then beyond the dreams of the crowned heads of Europe

and Asia: bicycles, plumbing, electric lights, watches, Pullman cars, phonographs, pianos, radios, silk stockings, automobiles, printing machinery and airplanes.

All of these new products combined to give America a standard of living that had never been known before in any land. But a great change had come to the American economy. It was no longer an economy of human muscle and brawn; it was now an economy of the machine, based on steel and oil and power. America had come of age as an industrial nation.

Thus we see how new social problems, such as work security, sanitation and housing, were created by the mere fact that the American economy had changed from agricultural to industrial. These new social problems, of course, had an impact on every part of the economic household of which dentistry is a part. So whether anyone wanted it or not, whether anyone realized it or not, change had come to America through economic change alone and such change is almost inevitable after the turmoil of international war.

For a number of decades the American economy, by and large, remained in balance. As new machines were made, new jobs were created to take care of the displaced labor. Occasionally the balance was upset and then there were unemployment and depression. But in almost all of these moments of imbalance—when the machines threatened to outstrip the creation of new jobs—new inventions and new machines came to the rescue. The development of the automobile just prior to the last war was the last classic example of such stimulation, and millions found employment in the production lines that turned out cheap and efficient transportation for the average American.

In 1929, for a wide variety of complicated reasons, this balance was upset and the American economic machine, along with those of almost all other countries of the world, was thrown completely out of gear. No new inventions came to the rescue this time and the country soon languished in the deepest depression it had ever known. The economy of the machine had been upset.

When unemployment reached desperate levels, government itself began the creation of new jobs but not through the use of new inventions as had been the case in the past. Government created jobs with public money by undertaking public works: the reclamation and salvage of wasted lands, the building of libraries, post-offices, community centers, hospitals, dams and power plants, by the development of health and sanitary projects, by improving rivers and roads for transportation. This move provided the third great change in the American economy, an economy in which we produced all we could buy and still had ten million unemployed. The old economy in which private industry and initiative had been foremost had now been replaced with an economy of governmental planning and management.

This was the economy of the 1930's and it brought with it many sweeping social changes. Dentistry, of course, did not remain untouched by this new force but was swept along on the tide of depression, emergency relief and decreasing incomes.

Then, as the 1930's came to their weary close, the long lines of unemployed began to disappear, first in Europe and then in this country. Factory chimneys began to smoke; the hammers of the steel mills again were heard as the open hearths glowed on the fringes of the great cities; dinner pails were full again; consumer goods began to disappear from the shelves; jobs were easily available and payrolls mounted; government relief dwindled and the depression seemed to end as the nation began to expand its industrial production in every direction.

The reason for this change again was not a new machine or a new invention; it was the coming of war. But war is no harmless stimulant to any economy. It is a dangerous economic gamble that produces pressures, strains, dislocations and changes for many years to come. Today we are in the midst of this fourth shift in the economy, the economy of war with its stern rule of produce or perish.

When the days of peace are at hand once again, this sudden stimu-

lus will cease. Factories will turn to the production of peacetime goods; war workers will seek other occupations; the returning soldiers and sailors will ask for their places in industry and in the professions; women's place in the new world must be redetermined on the basis of what she has done in the war. And, finally, higher levels of security must be provided for all if the victory is to be worth its price of sacrifice and death. These will be the problems of the postwar economy.

Thus, briefly, we have seen how the American economy was first grounded in the soil and the farm; changed, then, to an industrial economy dominated by the machine; changed again to an economy in which government began slowly to replace private initiative; changed again to meet the tragic dislocations of an international war and will change again to meet the changing conditions of rehabilitation and peace.

#### THE CHANGING SOCIAL PATTERN

Let us now examine the changing social pattern of the past few years to see what influence it can have on the postwar world.

It is 1920. The decade opened as the League of Nations came into existence under the provisions of the Versailles Treaty. President Wilson was in the White House, a broken and bitter man. The people were singing "Yes, We Have No Bananas," "Dardanella," "Tea for Two" and "The Japanese Sandman," as they sipped their dollar drinks in the cozy shadows of a speakeasy. Liquor was hard to get unless you knew the right people, and the gin was likely to be fresh from the bathtub. The flapper was learning the Charleston and the Black Bottom. There was a host of fads that included Coue, mah-jongg, Gertrude Stein, miniature golf and crossword puzzles. Sinclair Lewis, Vina Delmar, Percy Marks, Hemingway and Mencken were shocking many with their very frank references to sex. The newspapers featured the Leopold-Loeb trial; the Dayton, Tennessee, evolution trial; the Ruth Snyder murder case; the Lindbergh flight and many other dizzy events of

a dizzy decade. A few inside lines of the newspapers were given to the comic opera Beer Hall Putsch in Munich which sent a ne'er-do-well named Adolf Hitler to jail where he began to write a tiresome and long-winded book called "Mein Kampf." With a great flourish the Kellogg Pact was signed by all but a few nations of the world to "outlaw forever the use of war as an instrument of national policy."

As Harding, Coolidge and Hoover came to the White House through the decade, prosperity was increasing on every hand. We talked no longer of "the full dinner pail," but of "two chickens in every pot, two cars in every garage." The national income reached the highest level it had ever known. Those who wanted work could get it and those who wanted goods had the money to buy them. In short, the present and future in those days was properly characterized by the words of the popular song which held that "I'm looking at the world through rose-colored glasses, and everything is hotsy-totsy now."

Thus the 1920's mounted in ever-increasing spirals of prosperity into the golden, rarefied atmosphere of 1929, the year of greatest prosperity that this nation, or any nation, had ever known. Then came November, 1929.

On Black Friday the stock market suffered its first sickening crash. In succeeding weeks brokers called frantically for more margin as thousands of small investors and their paper profits were wiped out. Heroic noises issued from the economists, the professors, the bankers and the politicians who tried to sooth the country into feeling that everything was well. In keeping with the period we tried slogans: "Don't sell America short," and "Prosperity is just around the corner." But the magic spiral of prosperity was broken and it came bent and twisted to earth.

The disasters and the depression deepened as the 1930's opened. Then came the election of Roosevelt and the dramatic enunciation of the "New Deal." In rapid succession came the bank holiday, the flood of disciplinary and regulatory legislation, and governmental

relief in all of its forms. The new national song was "Brother, Can You Spare a Dime."

Through the dreary years of the early and middle thirties the country stumbled in depression. Jobs were scarce or unobtainable; governmental bureaus multiplied in alphabetical profusion, and elaborate systems of emergency relief were established. Landon ran against Roosevelt, lost, and the country settled down to work its way out of the depression and to develop its own personal attitude toward the administration.

News from abroad was disquieting and sometimes drew attention away from the drab domestic situation. Japan had invaded China. In Germany a small man with a funny mustache had finished his book and had come to the chancellery on the death of Von Hindenburg, to translate it into action. The blood purge of 1933 startled the world by its sheer savagery; a king abdicated to marry whom he would and the revolution began in Spain.

Then in rapid succession came crisis after crisis to shatter the world in a war of nerves. Germany moved into the Rhineland and the democracies talked of "appeasement"; the deal over the Sudetenland and the heartless betrayal of the Czechs shocked the world; then came Munich and the symbolic umbrella that was supposed to bring us "peace in our time." The threat to invade Poland came next and in 1939, as the decade neared its end, the world found itself at the start of a second world war, only a generation removed from the first. The cycle of peace and war had again been completed.

Poland fell. The Maginot line was turned and France fell. The bloody evacuation at Dunkirk seemed to presage the fall of mighty Britain and Germany prepared to cross the Channel. For two years of "blitz" and war the struggle continued until one foggy Sunday afternoon in December, there came the attack on Pearl Harbor. The United States, too, was again at war.

These events are recalled to you only to show their deep and lasting significance on the national way of life. At the end of the

World War in 1918 patriotic fervor began to cool and was replaced by the hard-bitten, cynical, disillusioned outlook that was characteristic of the early 1920's. As prosperity began most citizens became rugged individualists, confident, resentful of being told what to do. Underneath this was the carefully fostered national conviction that prosperity had come to stay and that poverty had been banished from this country forever.

Even after the crash many of us refused to believe that this was more than a temporary set-back. We remained rugged individualists who feared cooperation and did not want community or governmental help toward any goal. But as the depression deepened the national outlook began to change. Men were no longer concerned with the luxuries of life as they had been only a few years before. They now had a desperate struggle to furnish the simple necessities for themselves and their families: food, clothing, shelter, dental and medical care. In the great cities, in the quiet villages and in the countryside the animals of fear, hunger and unemployment began to stalk at people of all classes.

The funds of private charity, of the community and of the state were soon exhausted and people turned to the federal government for aid. The rugged individualist of the 1920's had been destroyed by the depression. Thus, in a single decade, the national outlook had changed from one of proud independence to almost complete dependence on the federal government which now furnished, through various bureaus, protection against the loss of homes, the loss of crops, the loss of bank savings, the loss of investments and the common risks of life: unemployment, total disability, lack of food, clothing, shelter and medical care.

When this dependence on government was deeply ingrained into the nation, there came the second world war with the stern necessity for further regimentation of manpower, the marshalling of industrial production and the inevitable rationing and restriction on the luxuries and necessities of life. Today we have merely to look about us to see various necessary wartime governmental controls in

action: the Selective Service Act, rationing of food and commodities, price control, production control, wage control and many others. These are the things that will have an influence on the postwar world; these are the things that indicate still another change in the march from rugged individualism to dependence on government.

#### THE CHANGING PATTERN IN WAR

We have seen the economic and social changes that have taken place prior to the war, let us now look at the principal changes that are taking place during the war.

The provisions of the Atlantic Charter, the speeches of President Roosevelt, of Prime Minister Churchill, and of Vice-President Wallace, all envision increased social security for all people as a direct product of this conflict. But more specific evidence is not lacking. Witness the following:

ENGLAND. On last December 1 the now famous Beveridge Plan for social security was announced in Great Britain. It provides for security from "cradle to the grave" or, in a more trenchant phrase, "from womb to tomb." The Beveridge program is not revolutionary, it is evolutionary even though it represents a complete program of social security for all citizens. No great changes are proposed: the present system will be expanded to include many other groups and its control will be centralized. These are the two chief proposals of the plan.

Beveridge makes some interesting proposals in regard to dentistry:

1. Preventive dental care is essential to the health of the nation
2. The program should include dental health education with emphasis on early and periodic visits to the dentist
3. Dental benefits will be provided as are medical benefits and will be just as complete
4. If the demand for dental care is stimulated, the present supply of dentists will not be able to meet it
5. When dental appliances such as dentures are supplied the patient should bear a part of the initial cost

Most of these proposals could be used to develop the basis of a

postwar dental program for this country because they are basically sound and in accord with the principles accepted by organized dentistry.

CANADA. If the British proposal seems too far away from home, look to Canada where a nationwide compulsory health insurance system, including dentistry, is now under consideration by the House of Commons. The Canadian Dental Association has submitted its proposal for participation in the program and plans to establish a "compulsory dental health insurance scheme for all children up to the age of sixteen." Provision is also made to extend the system as soon as it is advisable. The plan itself provides for dental examinations twice a year, prophylactic treatments, plastic fillings, extractions, anesthetics, special services, radiograms and special materials. For the long-range program the association asks for grants to aid dental research, dental health education and for the education of students of dentistry.

In April, 1942, a Gallup poll in Canada revealed "seven out of every ten Canadians are in favor of a contributory national health plan." A recent poll of "the present members of the Federal House indicates over two-thirds in favor of a health insurance plan."

UNITED STATES. In our country there are signs of the changes that the war is bringing.<sup>2</sup> In March the National Resources Planning Board brought out its tremendous report on social planning. This report did not stir the country as the Beveridge proposal stirred Britain and, at the present time, there is little evidence that it will be translated into legislation until after the war. The report is not as specific as the Beveridge program but contents itself with a survey of the present situation and some general recommendations for the future. Its three main parts deal with demobilization, job guarantees, and social insurance against old age, unemployment, temporary

<sup>2</sup>Since this address was prepared the introduction of the Wagner-Murray-Dingell, Social Security or "Cradle to Grave" Bill, has emphasized the trend to Social Security in this country.

and permanent disability. "Adequate medical and health care for all, regardless of place of residence or income status" is also proposed in the report.

In regard to health the NRPB report is far from being specific. It makes no proposal for a health insurance system. It does, however, recommend that adequate public health services be provided and points out a great lack in county health departments. It proposes a national program of improved nutrition. It emphasizes the provision of facilities for medical care but does not propose any system of regulating or paying for them.

OTHER FACTORS: There are many other influences at work that will have their effect in the postwar world.

The recent decision of the Supreme Court in the case of the American Medical Association warns professional associations that certain of their actions come under the purview of the Sherman Anti-Trust Act.

The decreasing supply of civilian dentists has led to a study of acceptable ratios of dentist to population. Both government and the profession have apparently accepted 1:2500 as a satisfactory ratio. The acceptance of this figure is important because it provides the basis for future calculations on the distribution and density of the dental population, as well as on the number of students needed in dentistry.

The relocation of dentists in the so-called "critical areas of industrial production" is now going forward on a voluntary basis and should prove to be an interesting experiment as to whether or not a similar program in the postwar period could be used to correct uneven distribution of dentists. If relocation becomes compulsory, then government will be provided with a powerful weapon in postwar days.

Three important factors arise out of dental education: (1) the control of the schools for the war period by the military; (2) the acceleration of the dental curriculum; (3) the control by government of the number of students permitted to study dentistry dur-

ing the war. The ultimate significance of these three factors is not yet clear, but undoubtedly they will have an influence on postwar developments.

#### THE PATTERN OF THE POSTWAR WORLD

All of this brings us now to a summary of the shape of things to come in the postwar world. That phrase means many things to many people, amusing evidence of which is given in a recent issue of *The New Yorker*. "In the postwar world," the writer says:

"I am going to drive a car that looks as if it had been made in one piece by a Czechoslovakian glassblower. Apparently I will be expected to navigate this confection while lying on my belly and will enter and leave it by the rear, as if it were a hearse and I were a corpse. If so much as a cotter pin drops out, I'll have to put the thing in drydock. It also appears that I am to be entertained by, or at least, compelled to watch, television shows in full color. Airplane travel is going to be compulsory with direct lines to Reykjavik, Melbourne, Dublin and dozens of other places where I have no good reason to go, places where I would only get into mischief. Altogether, the prospect (for the postwar world) is fatiguing."

But our concern with the postwar world lies not in the shape of the automobile, but in its influence on dentistry. Four great influences are at work:

1. *The changing economy*: The American economy has changed from agricultural to industrial; from industrial to a managed economy; from a managed economy to an economy of war with its necessary restrictions and limitations of daily life. If the managed economy, or the economy of rigid control, is continued after the war, the profession of dentistry will encounter proposals and plans to manage and control various phases of dental practice.

2. *Changing social conditions*: In the past two decades the country has moved from rugged individualism to dependence on government. The war necessarily increases such dependence. If this tendency remains or increases after the war, then dentistry will face an increased popular demand for some form of control over the distribution of dental service through insurance or other method.

3. *The changes of the war:* In this country, in England, in Canada and in many other countries there are already specific proposals for increased social security in the postwar period. If these plans are satisfactory to dentistry, the shape of the future can be determined almost at once. If these proposals are not completely satisfactory to dentistry, then dentistry's position in the postwar period will rest on her ability to project a program of her own and on the marshalling of her resources to put it into action.

4. *The influences in dentistry itself:* Dentistry now has a basic deficiency in its manpower, with little or no hope of rectifying this deficiency during the war period. Dentistry now has divisions in almost all of the state health departments, thus providing a state mechanism for the expansion of dental benefits under social security legislation to various groups of the population. Dentistry faces the dislocation of many practitioners after the war and a chronic maldistribution of its manpower even during times of peace. Dentistry is achieving an increasing level of autonomy but it must also assume the responsibility for this growth in stature. Dentistry is well organized in the states, by and large, but much remains to be done before complete professional solidarity is assured. Dentistry, through the important Council on Dental Health of the American Dental Association, is planning against the changes of the postwar period. The Council's success in organizing counterparts in every state and in every community will determine largely dentistry's success in controlling the changes of the postwar period.

These are the four great pieces that make up the jigsaw puzzle of the future. It is not possible to do more than place them before you. The pattern in general has been revealed. Time will add new pieces. Dentistry itself must contribute still others.

Some of these trends are a part of the natural growth of the American economy; some are the results of a social coming of age; some are the results of depression; some are the results of war. Certainly the wise man will not try to hold or halt all of these forces as they rush to keep their rendezvous with history.

The task of the dentist—as a citizen and as a professional man—is to control these changes, to direct these changes, to supplement them with products of his own initiative, energy and vision. Only then will dentistry be discharging its highest duty to the public and to its members. Only then will American dentistry make still another contribution to the national health. Only then will American dentistry take its place as a health service dedicated to serving all of the people in the days of ultimate victory and lasting peace.

## QUICKENING THE PACE

LOUIS BRACH, D.D.S.

*Jersey City, New Jersey*

In the issue of the *Journal of the American College of Dentists* for December, 1942, pages 404-408, there appeared an article by Dean Willard C. Fleming of San Francisco, Calif., entitled, "Won't you walk a little faster?" This very thought-provoking article strikes at one of the foundations of dentistry's claim to professional status; namely, postgraduate education. It thus exposes at least one of the skeletons in dentistry's closet. The article may be divided into three parts as follows:

1. *Evidence.* Hearsay, circumstantial, and statistical, showing that "dentists are not inclined to continue to study after graduation."

2. *Causes.* Dean Fleming presents for discussion two of probably many reasons why (a) "the dental schools, the dental educational system, and dental faculties . . . may be responsible;" also (b) a most penetrating observation—based upon the circumstances of dental practice—stated as follows (pages 406-407):

"Dentists as a group carry on their work within the walls of their offices. Their practices are not open to the examination and criticism of their colleagues, nor do they have the opportunity to observe the changes in dental practice. Hence only the most self-critical and ambitious continue the time consuming and expensive process of education. The physician, working in the clinic and hospital, is open to observation by other physicians. He operates in the presence of anesthetists, nurses and other physicians. His failure to keep in the front rank of his profession becomes apparent to those who are qualified to judge him. The lawyer is in open competition with other lawyers in our courts of law, and his failure to keep abreast of the times is readily apparent. The desire to have others think well of us is a strong driving force. Praise for performance well done is sought by all. The circumstances under which dentistry is practiced are such that it is not subject either to the criticism or praise of other dentists."

3. *Solutions.* Here Dean Fleming feels that if the first two parts are accepted as valid, the conclusion is inescapable that "a greater

degree of self-appraisal is necessary in dentistry than in the other professions," and suggests: "*first*, for dental schools to select only those who have the capacity to develop this attitude; *second*, to develop this frame of mind in students."

With the hearsay and circumstantial evidence adduced, few if any will disagree. Certainly not the chairmen of the postgraduate committees of component dental societies who have to beg, plead, cajole and finally literally black-jack a sufficient number of men into taking the courses for which they have laboriously arranged. But judging from conversations with physicians, the same is largely true of the medical profession. The statistical evidence, based upon the California Medical Economic Survey of 1937,<sup>1</sup> fails to explain why, if the dentist spends less on improvement as his income increases and this amount fades into insignificance when compared with his savings program, the dentist does not die possessed of more worldly goods than fiduciary records reveal. Then, too, the evidence might have been expanded to show that dentists not only "are not inclined to continue to study after graduation" but, what is more significant, frequently after graduation do not practice what they have been taught in school.

Having with only limited reservations accepted the evidence, we come to causes. To the dental schools, the dental educational system and dental faculties, Dean Fleming might well have added the dental profession. For all share the responsibility for failing to appreciate the essential differences in the educational needs of physicians and dentists—differences in the very nature of their work—and, as Dean Fleming has pointed out, also differences in the opportunities for examination and criticism of their work by their colleagues and others competent to judge.

Because of our unceasing struggle to reach that oft-mentioned goal of "parity with medicine" (whatever exactly that may mean), these differences have either gone unrecognized or, when noticed, have been dismissed as trivial or irrelevant. Hence, because medicine long frowned upon the teaching of medical economics in her

<sup>1</sup>See *J. Am. Col. Den.*, 9, 405; 1942, Dec.

schools, we shied away from teaching dental economics in ours. But note the difference in the needs for education in economics. The recently graduated young physician, upon commencing practice, need learn only the current charges for house and office calls by his established colleagues. But the young dentist is confronted by multiplicities of procedures in all branches of his work and by the additional fact that different men solve their problems in different ways — some with “get-the-thing-over-with-quickly” procedures, others with more exacting and time-consuming methods at necessarily higher fees. “What shall I charge?” is far more difficult for him to determine than for the young physician.

Young dentists having graduated from, let us say, Class A dental schools—where they received the best possible dental education available anywhere in the world (in every department but that of dental economics)—try to find a yardstick to guide them in establishing a scale of fees for their services. A simple problem for the medical neophytes, but how complex for their dental colleagues! Beginners in dental practice—recently trained in careful oral diagnosis, in practicing extension for prevention in preparing cavities, in inserting well-condensed amalgam fillings with occlusal locks when compound, in placing well-inserted gold-foil fillings, in practicing rational periodontic treatment and balanced occlusion bridge and denture restorations—are often confronted by the fact that most of their older colleagues in the vicinity are using procedures their dental instructors had assured them became obsolete long ago. And at fees too low to permit them to follow the more exacting and time-consuming procedures taught at school.

Facing this problem, what do the young graduates do? Those of sterner stuff battle through, sticking to the procedures they learned at school. Others adopt the procedures and fees of the practitioners in their vicinity, promising themselves that as soon as they come to the firmer ground of financial security they will return to “good dentistry.” An uncomfortably large number, however, succumb to the fear of becoming known to the public as charging more for their services than do their older colleagues. So, very shortly, they prac-

tically discard most of what they have been taught and become superficial in diagnosis, fail to practice extension for prevention, insert "finger-print" amalgams lacking occlusal locks in the compound cavities, insert easily-washed-out synthetics, pay slight attention to periodontal disturbance, and revert to plain-line occlusion and "mush bites" for their bridge and denture restorations.

What was earlier referred to as expanding Dean Fleming's original evidence should now be clear. If dentists do not generally carry into practice the ideals and procedures they have been taught at school, it should occasion little surprise if they are not inclined to study after graduation.

It is not only in failure to include the teaching of dental economics in the curriculum, in order to prepare dental graduates to meet problems so very different from those of medical graduates, that dental education has been remiss. It has also often slighted certain mechanical phases of our work. Indeed, at least one large dental school once employed technicians to process the dentures that students were constructing for clinic patients. The dignity of work with one's hands has not been sufficiently stressed. Perhaps, in order to make our title of doctor elicit as much respect as does that of the physician, there has been too much stress upon dentistry's similarity to medicine. Perhaps the belief was allowed to take root that respect and dignity attach in inverse ratio to the amount of manual labor employed, despite the standing of sculptor and painter in great esteem. Perhaps, too, we have unconsciously tended to discard all terminology that reminds us of our older and humbler status as skilled artisans. We dislike the very word "mechanics;" and because of that dislike, we often refuse to face facts the recognition of which would go far to place us on the road to a solution of many of our problems. In any case, the price of all this bolstering of our collective ego has been our failure to realize that, because of our dissimilarities, dental problems cannot as a rule be solved by medical formulae.

We must recognize that the bulk of dental services rests upon a mechanical basis. This is not true of medicine except for surgery (and

services like orthopedics) which is also mechanics of a sort. Even in surgery, no matter how delicate, the mechanics is of a comparatively crude nature compared to the exacting requirements for getting a gold inlay accurately to fit the cavity for which it is made. Granted a thorough knowledge of his anatomy, the surgeon can make a crooked or irregular incision confident that it will heal as readily as a straight one. But the dentist whose inlay falls short of reaching the beveled margins of the cavity has no recourse but to start from scratch and make it over, for no miracle of nature will intervene and make the gold jump that gap.

This is still not all of the story. The budding practitioner, if fortunate, will become one of that greater group of the dental licensees who join the county dental societies of their jurisdiction. He may or may not love his work but has at least an interest in the thing which gives him his livelihood, an interest which he has in common with other dentists. This, plus the good fellowship which is usually found in dental groups, rather than any avid desire for professional improvement, causes him to join. And then month after month he listens to probably top-flight essayists explain with the help of slides how, by doubling the time usually held to be sufficient for a given procedure, precision results can be obtained. Discussion, perfunctory or otherwise, follows and the meetings end. Our dentist has listened carefully and with interest, perhaps has even felt a recrudescence of an earlier idealism and freely told himself that here was something definitely good—and then wound up by saying to himself: "Shucks, but I can't use it; it takes too long, and *my* patients won't pay me for the extra time." For here also we have erred in following too closely the pattern of medical and other scientific meetings. We have failed to recognize the dissimilarities in medical and dental work and that, for the physician, change in the treatment of medical conditions frequently involves nothing more than switching from one drug to another. Whereas to the dentist, change in treatment may involve the expenditure of double, triple or quadruple time in procedure, to say nothing about increased material or laboratory expense.

How much better could that interest have been maintained by the essayist if he had devoted a small part of his lecture to the dental economics of the procedure he was talking about! A dental economic period should become a standard performance demanded of every essayist unless speaking on oral surgery, *materia medica* or related subjects. We must remember that the essayist's audiences are made up of dentists of various ages and different degrees of idealism. Some of those who possess the idealism may lack the financial security to give them the courage to make time-consuming changes. Certainly it would "hit them right where they live" to have an essayist publicly show intelligent appreciation of the fact that a dental economic problem does exist. The mere public recognition of it, and the ensuing discussions, might easily persuade some of his listeners to *try* to improve their service to the public.

This departure, from customs set by medicine, should also be carried out in all postgraduate dental instruction. We must learn the lesson that the value of such education is very limited when only a small percentage of the dentists taking the courses translate their newly acquired knowledge into the every-day routine of practice, while the rest fail to do so because of what they consider to be an insurmountable economic barrier. A frank talk by the instructor, explaining how he personally overcame the barrier and made his clientele understand, appreciate and be willing to pay for his services, would be of inestimable help.

These suggested innovations in the graduate and postgraduate education of dentists are by no means "going commercial." The American public desires the best in every field and, if it can be made to comprehend what constitutes the best, will appreciate it and pay for it gladly. The vast changes that have taken place in medical practice have been so well publicized that they have been readily accepted by the public. The equally vast changes in dental practice, however, have not been so well publicized. As a result, these changes are not yet comprehended by the public; and, not being comprehended, are not so well appreciated and of course not so readily paid for. It is obvious that what has not been done for us and our work collectively must of necessity be done individually. In contradis-

tion to medicine, then, each dentist has the responsibility of educating his patients and apprising them, one by one, of the scientific advances made by his profession. There is no attempt here to arraign our profession for failure to make known the advances of dentistry as thoroughly as has medicine. To have adopted plans such as the Massachusetts Plan, a euphemistic title for what was merely professional advertising, would have been a fatal blow to professional ethics. Medicine has simply been more fortunate in that its advances have so often been more spectacular than dentistry's, and because outside organizations such as the Tuberculosis League have promoted publicity for them.

Dean Fleming's own suggestions of possible solutions are difficult to accept. First, greater care in selection of dental students implies writing off the present generation of dentists as a "total loss." Second, as dentists and physicians of any given community are very likely to be recruited from roughly the same social levels, their divergent behavior after graduation with respect to professional improvement is not explained.

It is the writer's firm belief that only by frankly facing certain facts can we expect to create a situation that will help dental graduates to practice what good dental educators have taught them, and that will encourage them to continue that education throughout their professional lives. These facts, as already enumerated, show that the practice of dentistry is a field of endeavor bearing many resemblances to medicine and subscribing to an identical professional code of ethics, but governed by entirely different educational, economic and "circumstances-of-practice" rules. To state that such differences exist implies neither inferiority nor superiority to medicine. Nor does it imply that dentistry is any less a profession because so much of its service depends upon work with one's hands. As Dr. Wm. J. Gies has so frequently pointed out, the work of a dentist at one end of the alimentary canal is not one whit less dignified than that of the proctologist at the other end. But the facts do indicate the means by which dental institutions and the dental profession can cooperate to make the existing as well as future generations of dentists more effective and efficient in meeting society's dental needs.

## DENTAL EDUCATION IN A CHANGING AMERICA

GEORGE W. TEUSCHER, D.D.S., M.S.D., Ph.D.<sup>1</sup>

*Chicago, Ill.*

The function of dental education in America is and must continue to be the preparation of young men and women to serve the dental needs of the American people. How these young persons may best fit themselves for the performance of their chosen work and for the fulfillment of their social obligations must continue to assume an important place in our thinking about higher education, because dental education has won a place among the higher branches of learning. This achievement should mean more than maintaining a physical union, for dental education must strive now to achieve a spiritual affiliation with the university. And the latter must fulfill its new obligation to American society by giving the problems of dental education a prominent place in its considerations and deliberations.

### UNIVERSITY AFFILIATION

With few exceptions the dental schools of America have become integral parts of universities. They have, however, achieved only their initial objective in the establishment of complete affiliation namely, physical union. This has brought to dental education certain distinct advantages, e. g., prestige in the eyes of educators and the public; confidence, lacking in proprietary days; and distinction, as a branch of higher learning, in as much as the university is an institution, organized for teaching and study in the higher branches of learning. To maintain this advantage, however, dental education must direct its effort toward a spiritual amalgamation with the university. If it fails to do so, it will find itself reduced to mediocrity, carried along probably as a subordinate part of medical education.

In achieving this greater union the university, too, must assume some responsibility. A coherent and unified relationship between dental education and the university can be achieved only by recogni-

<sup>1</sup>Northwestern University Dental School.

tion of the mutuality of the problem. When dental education sought affiliation with the highest institution of American learning, it did not do so with the intention of losing its identity as an important branch of American educational culture.

#### THE UNIVERSITY

The development of the typical American university resulted, for the most part, in a loosely knit organization of autonomous schools, each intent on getting all it could from university funds in addition to scratching around for help from outside sources. Such an arrangement cannot be recommended for an institution where cooperation and cross-fertilization of ideas is not only desirable, but necessary for the development of a university which will make its impact on American life continually felt.

However, the development of a strong central administration is apparent in most universities today. With a fair-minded administration, a strong central organization can mean a more equitable distribution of funds and facilities, based on a careful determination of need.

In this changing educational picture, dental education must continue to exert its influence. There will be efforts made to reduce costs by eliminating duplication of facilities and teachers. The university regards this practice as one of its important duties. If it should not be done in specific instances, it is up to the educational leaders of the university to point out why it should not be done. Because of the similarity of the basic sciences of dentistry and medicine, some universities offer them in only one school. Under this arrangement dental and medical students study together. There are advantages in this plan, provided that neither student group is subordinated to the other. Ideally, it should be treated as a basic science division of the university, responsible for the pre-clinical development of medical and dental students alike. Such an organization is excusable only, of course, if both medical and dental students are to benefit from it. The saving of a few dollars alone cannot and must not justify it.

## THE DEVELOPMENT OF A STRONGER DENTAL EDUCATION

Dental education need not fear subordination or loss of identity, if it will take steps to develop strong teaching, and if it will invoke the aid of the university in taking these measures. It is the author's opinion that better teaching must form the basis for a better dental education. There is little doubt that the success or failure of the educational program is dependent upon this factor. It will remain largely impossible to train dental students to see individual differences among their patients, to recognize social obligations, and to accept responsibility for continued growth, as long as the teaching corps itself remains, on the whole, impotent toward these obligations. The attitudes and habits which a teacher helps to develop in his students are of equal, and in some instances, perhaps, of greater importance, than any other factor.

It is obvious that dental school administrators too often judge the content and the importance of the curriculum by course names alone. There is no effort made to study critically, the course content. This is very important. The statement has been made by at least one dental educator that the personality and scholastic attainments of the teacher should not affect the course of study. In other words, the course content is to be fixed so that all courses bearing the name would offer exactly the same material to the student. Only two methods of transmitting information could be so rigid, namely, the phonograph record and the textbook. And even then the interpretation of the subject matter by the student would not produce the same effect in all students. But the original statement is ridiculous and is used in this discussion only to make a point; that the teacher is and will continue to be all-important not only in the development of students' attitudes, but in the subject-matter content of the course.

The teacher is the crux of the teaching effort. If university association is to mean anything at all to dental education, it must provide increased opportunity for the development of great teachers of dental subjects. At present, the teaching personnel of America's dental schools consist to a large degree of (1) men who maintain a school connection for the prestige it gives socially and professionally,

(2) men who have found private practice unsatisfactory for one reason or another, and (3) men, some part-time, some full-time teachers, who have devoted their best efforts to the advancement of dental education. The latter group can boast of far too few members. The people found in groups (1) and (2) should not be criticized, but certainly the system which fosters their existence can be accused of gross laxity in the development of opportunities for teacher growth. Men who leave private practice for teaching should do so only as called into the field of dental education—an invitation based on recognition of the individual's qualities as a teacher, or research worker, and as a prominent personality. Further, it is unfortunate that capable young men who start their careers as assistants and instructors must sooner or later depend almost entirely on private practice to offer them the opportunities for personal growth which they feel themselves capable of achieving.

In normal times, dental schools are staffed, by and large, by young faculties. This circumstance is simply another indication that dental education does not offer the opportunities it should in order to develop truly great faculties. Growing out of the spiritual affiliation of dental education with the university there should be many chances for the growth of those dental teachers who take advantage of them. Such will be the case, providing that leaders in dental education make an all-out effort to demonstrate to university administrators the important place that dentistry does and will continue to assume in the maintenance of the health of the American people. Further, university administrators must be shown that dental education is cognizant of its broader social and ethical obligations and that it seeks and expects the help and cooperation of those branches of higher education which concern themselves with the social, economic, and health status of the American people. It is very important that dental education makes it clear that it is not guilty of the practice adopted by some of its teachers, namely, the use of an affiliation to enhance prestige.

So much for dental education. On the other hand, the university needs to be convinced of the facts mentioned above. It should

recognize that its obligations are not to dental education, but rather to American youth and American society. Whatever may be the policy of the university in regard to dental education, it should and it must be formed in the light of this important point. Any plan which loses sight of it will fail. Together the dental school and the university must develop teachers by offering to outstanding individuals opportunities for personal growth. In direct ratio to the magnanimity of this invitation will come growth in prestige and importance in the eyes of American society not of dentistry and dental education alone, but of the university as well.

# AMERICAN COLLEGE OF DENTISTS

## REPORT OF AD-INTERIM MEETING OF THE BOARD OF REGENTS, AND SECTIONAL REPRESENTATIVES

CHICAGO, ILL., FEBRUARY 21, 22, 1943

O. W. BRANDHORST, D.D.S., *Secretary*

The Board of Regents met in the Palmer House, Chicago, Ill., on Sunday and Monday, February 21 and 22, 1943.

### SUNDAY MORNING SESSION

This session convened at 9:00 o'clock. Present eight. Minutes of Regents' meeting of August 27 and 28, 1942 approved. Report on minutes accepted.

*Reports of Officers:* Reports of Officers and Regents received.

*Report of Treasurer:*

Gentlemen:

The undersigned, Treasurer of the American College of Dentists, begs leave to submit the following interim financial statement:

At the time of the last report of the Treasurer on August 27, 1942, the cash balance in the Continental Illinois National Bank and Trust Company of Chicago to the credit of the American College of Dentists was, as of August 17, 1942, \$8,832.71. This bank also held as Custodian for the College securities amounting to \$7,000 par value.

As of the close of business on February 1, 1943, the deposit balance of the College held by the Continental Illinois National Bank and Trust Company of Chicago was \$9,025.78. As of the same date there was held by this bank as Custodian for the College securities amounting to \$7,000 par value.

Official certificates from the bank covering the above mentioned deposits and securities are herewith attached.

Respectfully submitted,

(Signed) HAROLD S. SMITH, *Treasurer*.

*Report of Secretary:*

The Secretary's report included the following:

Membership of College as of February 21, 1943:

Honorary .....	22
Active .....	1114
	<hr/>
Total .....	1136

## Deceased since August 27, 1942:

Elwyn R. Bryant, New Haven, Conn. . . . .	Oct. 2, 1942
W. E. Hutchison, Little Rock, Ark. . . . .	Sept. 11, 1942
Oather A. Kelly, St. Louis, Mo. . . . .	Sept. 11, 1942
Addison K. Parks, Memphis, Tenn. . . . .	Jan. 5, 1943
J. Emmett Northcutt, Kansas City, Mo. . . . .	Jan. 5, 1943
James H. Shaw, St. Petersburg, Fla. . . . .	Oct. 20, 1942
G. J. Pattison, Rochester, Minn. . . . .	Dec. 28, 1942

The Secretary called attention to the need for alertness on the part of the profession to the many problems confronting it now and in the post-war era in the following statement, which was approved by the Board of Regents.

## POST-WAR PROBLEMS—ARE WE PREPARED FOR THEM?

At the meeting in St. Louis in August, both Drs. Meisel and Black, in their messages called attention to problems facing us. Subsequently, President Black in his message to the Sections urged consideration of some basic questions. This has focused attention on post-war problems and the Secretary believes that these studies offer an unusual opportunity to the College in usefulness and leadership.

That the post-war era will bring with it many unexpected problems goes without saying. That it will demand a reconsideration of pre-war methods, in the light of emergency experiences is also to be expected. It is also agreed that many plans affecting the lives of our people generally, have been shelved for the duration only and will be brought forth for further consideration when war measures no longer have priority. Among these there will be many that will affect the practice of medicine and dentistry.

At the moment it matters not whether we favor these changes or are content with the status quo. The important thing at present is that the professions prepare themselves for intelligent discussion of all problems affecting them in their relation with the public.

Our profession, dentistry, should lose no time in studying all aspects of the situation. The future development of the profession, the training of its man-power, research problems, the education of

the public, the need for services, their availability, the patient-doctor relationship, the application of a program of prevention—these are only a few of the questions that are sure to be discussed. Not only should we be prepared to discuss these dental problems, but we must be prepared to evaluate the influence of all post-war socio-economic plans as they might affect dentistry, not only for the preservation of the profession but also from the standpoint of the best interest of those whom we serve. The standards of dentistry in so far as professional status and public service are concerned, must be made synonymous.

This can be done only through a thorough study of all interlacing problems. It matters not which organization or which individual makes these studies; the important thing is that these studies be made now, so that they will be available to those who may be called upon to represent dentistry in the discussions to follow.

The American College of Dentists can render a valuable service to the profession if it will make these necessary studies. Duplication, of course, should be avoided as far as possible. Where studies have already been made, the availability of such information should be indicated. The logical repository of all such information and studies should be in the headquarters of the American Dental Association. The A.D.A. should be advised of our willingness to make such studies, with a request that it indicate what information is already on hand, so as to avoid duplication of effort.

The following list of questions suggests only a small portion of the information which should be readily available.

*A. Dentistry as a profession*

1. What designates dentistry as a profession rather than a trade?
2. How did it develop?
3. What is its present status?
4. What are the trends today?
5. What are the hopes and plans for the future?
6. What of dental education?
  - a. Its history—present requirements, trends
  - b. Its basic education—predental, undergraduate

- c. Supplementary education — institutional, graduate and post-graduate
- d. What are the costs?
- e. What standards should be established in the selection of dental students?
7. What of its literature? Publications, books, etc.
8. What of its dental laws?
  - a. Their past functions, present function and effectiveness; possibilities and trends
  - b. State laws for dental practitioners
  - c. Laws for certification of specialists
  - d. National laws (regimentation)
9. How essential is dental health to the health of the nation?
10. Is specialization in dentistry desirable?
11. How will group practice in dentistry affect dental services in quality, quantity and distribution?
12. Is the supply of dentists sufficient to supply dental needs?
13. What is the economic status of the dentist under present practice methods?
14. How can the dental man-power best be utilized?
15. What should be expected of the dentist as to weekly hours in present practice? Under regimentation?

*B. Economics generally*

1. What are the fundamentals of a Social Security program?
2. What are the present governmental trends and their influence upon business and the professions?
3. What does the Atlantic Charter offer in the way of economic security?
4. What about the Beveridge Plan?
5. How will the unemployment problem affect the health plans in the post-war era?
6. What are the incomes today of various population groups and what percentage of the population does each represent?
7. What effect will the present tax plans have on present dental practices and future plans?
8. What would be the cost of duplication of equipment in any plan of clinical or group dental practice?

*C. Economics—Special emphasis on Health Service*

1. How important is health service to the Social Security program?

2. How does our present set-up encourage development of productive capacity to satisfy human wants and needs?
3. How is such capacity utilized?
4. How can these benefits be made available to meet human needs and desires?
5. How can dental services be made available to all under present service plans?
6. How can dental services be made available with outside assistance?
7. Why do many citizens not buy dental service today?
8. How does expenditure for dental services compare with expenditure for commodities in general?
9. Will a pay-as-you-go tax plan affect the purchase of dental services? Will a heavy withholding tax have an unfavorable reaction on the seeking of dental service?
10. Health Insurance
  - a. What does it offer?
  - b. How does it function?
  - c. What are its advantages and disadvantages?
11. What of the Blue Cross Service?
  - a. How will group hospital service influence dental practice?
12. What does the Beveridge Plan offer? (Health service and rehabilitation)
13. What does the Canadian post-war program in dentistry offer?

*D. Emergency measures*

1. War time controls?
  - a. What are they—extent and kind
  - b. Why needed?
  - c. What effect on post-war adjustments?
2. How will possible policing and feeding of the world in the post-war era affect dental health service?

*E. Medicine*

1. Its contributions
  - a. Healing the sick
  - b. Relief from pain, etc.
  - c. Increase in life span—why?
2. The American Medical Association—10 points. Do they still stand?
3. Are pre-payment plans now operating?
4. What of the rehabilitation of war casualties?

5. What will be the effect of recent Supreme Court ruling on future practice?

#### *F. Dental Services*

1. How important is dental health?
2. What are the needs for various types of dental services for different population and age groups?
3. What can we do to prepare the youth of today for a better and more complete dental health service?
4. Would it be desirable to give special attention to youths of 16-17 years of age now, to lessen the needs as they enter service at 18?
5. What constitutes an adequate dental service for various population groups?
6. Can dental services be divided into certain types of services for various income groups?
7. What responsibility has the dental profession towards dental health service for the masses?
8. Does a dental health service plan for all the people seem feasible?
9. What is the present available effective man-power in dentistry?
10. How can dentists' man-hours be most effectively used in a dental health service for the nation?
11. Is the trailer-dental clinic the answer to needs in outlying districts?
12. How is the problem of an aging population going to affect dental service requirements?
13. Will regimental dental services affect the basic principle of relief of pain which has always been one of the earmarks of a profession?
14. Experience tables of other countries in rendering dental services
15. Advantages and disadvantages of various plans
16. Is specialization in dentistry desirable?
17. Group practice—advantages and disadvantages and cost
18. How can dental services for the various population groups be most effectively handled—in private practice, group practice, in dental clinics or health centers?
19. In other than private service, how should the service be administered?
20. What of dental man-power and needs for service?
21. What is the present cost of equipping a dental office?
22. What is the present cost of equipping a dental practice?
23. What of dental clinics—types, functions, services, costs?
24. What about hospital dental service?
25. What should be the relationship to the dental profession of the dental hygienist, dental nurse, and technician?

26. What should be the relationship of the dental laboratory to the profession?
27. How can the general practitioner be prevailed upon to do more dentistry for children?
28. How can we utilize our knowledge to supplement our man-power?
29. What of the assignments of dentists in the present war effort—duties, responsibilities and opportunities?
30. What is the cost of dental care?
31. What is the outlook for dentists in post-war period based on population income and government tax needs?
32. What is the Hyser Belt Line Plan for dental services? Who is back of it?
33. What contribution are we ready to make toward the problem of paradontal disease?
34. Is caries control possible? How should it be organized?
35. What is meant by a one label caries control?
36. How many dentists will be needed for post-war rehabilitation?

*G. Consumer problems*

1. What is the consumer's point of view of the health problem?
2. How will the tax problem influence consumer's desire?
3. Is there a real demand for dental services and by whom?
4. What percent would avail itself of service today, if finances were available?
5. How will employment affect consumer's desires and demands?

*H. The dentists*

1. The dental man-power—what are the man-power service hours?
  - a. Active dentists
  - b. Partially active
  - c. Retired
2. Is an increase in the number of dental graduates desirable and possible?
3. Where does the dentist stand in present social security set-up?
4. To what remuneration should a dentist be entitled, due consideration being given to the cost of training, cost of service, expectancy of years in service, status in community, retirement needs, etc.?
5. What shall be the method of payment for dental services in any health service plan—by salary, by fee schedule, or per capita? (Advantages and disadvantages of each and estimated figures)

*I. Governmental agencies*

1. How will Vice-President Wallace's statement that "The Spirit of Competition will and must continue to be our main driving force" influence post-war dental health service?
2. The National Resources Planning Board—What are its plans?
3. The U. S. Public Health Service. Present activities, future possibilities?
4. The Children's Bureau—its present and future activities.

*J. Education of public*

1. How can the public be educated to the need and desire for dental services?
2. What part shall each of the following play?
  - a. U. S. Public Health Service?
  - b. The Children's Bureau
  - c. The National Dental Health Association
  - d. The American Dental Association.
  - e. The profession
  - f. The press
  - g. The radio
  - h. The schools
  - i. Service clubs
3. What shall the message be?

*K. Research*

1. How important is research and how can it best be utilized?
2. How is dental research financed at present?
3. If an accelerated dental research program were instituted, what financial aid would be needed?

*L. Prevention*

1. What part can prevention play? How can it be made effective?
2. How does the cost of a repair program compare with cost of a program of prevention?

*M. Social Security*

1. Where does dentistry fit into the Social Security structure?
2. Is a governmentally controlled national social security program necessary to make dental services available to the masses?

*N. Dental Health*

1. How important is dental health?
2. How does dental health affect:
  - a. School attendance
  - b. Scholarships
  - c. Citizenship
  - d. Efficiency in industry
  - e. Life's outlook
  - f. Life span
3. What is the estimated cost due to dental ill health of retarded pupils in schools? Man-hours lost in industry?

*O. Things basic*

1. How important is free choice of doctor and patient?

*P. Health Insurance*

1. What shall be included in the dental health service in a compulsory or voluntary plan of service?

*Q. Employment and Unemployment*

1. How will unemployment affect post-war health plans?

*R. Conference table*

1. Who should sit at a conference table on health problems?
2. What are the probable questions to be discussed?

*S. Social Service*

1. What part should social service play in future dental services?

*T. Lease-lend influences*

1. Will the lease-lend plan influence reconstruction and what effect on health service?

*U. Dental aids*

1. What can be done with dental technicians, laboratories, etc., in the post-war era?

*V. Politics*

1. What will be the effect of possible change in administration on Social Security and Health service policies?

*W. Employers' Angle*

1. What interest has the employer in dental health service for his employees?

*X. Special services*

1. How can specialized services be made available to greater numbers?

*Y. Cooperation*

1. What shall be the cooperation of dentistry in a health service program with medicine, government, private institutions, etc.

- Z. What seems to be the best plan for making dental services available to all and yet maintain the highest quality of services, together with an incentive for progress?

*Reports of Committees:*

Progress reports were received from the following Committee chairmen:

Education.....	W. C. Fleming
Journalism.....	Wm. R. Davis
Oral Surgery.....	L. M. FitzGerald
Preventive Service.....	E. W. Swanson
Relations.....	L. E. Kurth
Socio-Economics.....	Geo. W. Wilson
History.....	W. N. Hodgkin
Prosthetic Dental Service.....	W. H. Wright

## LUNCHEON SESSION

The luncheon session was under the direction of the Illinois Section of the College with Chairman Chas. R. Baker presiding. The following program was presented:

Capt. J. A. Tartre, Great Lakes Naval Training Station, Response.

Major K. R. Cofield, Army Dental Liaison Officer to the A.D.A., Response.

Mr. H. L. McCarthy, Regional Director of the Federal Social Security Board, Social Security in the United States. (See p. 000.)

## AFTERNOON SESSION

*Regents and Representatives Meeting*

Following the Illinois Section Luncheon and its program, Dr. Baker turned the meeting over to President Black, who presided at the joint meeting of the representatives of the Sections of the College and the Regents. The following Sections were represented:

New York, Minnesota, New England, Colorado, Pittsburgh, Illinois, St. Louis, Oregon, Texas, Florida and Washington, D. C.

In addition to greetings and general reports from the various Sections, special reports were received from the Illinois Section through Dr. L. E. Kurth and the Washington, D. C., Section through Lt. Col. L. H. Renfrow. These reports were the result of studies conducted by these sections on some of the post-war problems suggested by President Black to all Sections some months before. The reports will be found on pages 00 and 00 of this issue of the *Journal*.

The representatives' meeting adjourned at 4:00 p.m.

#### SECOND SESSION

##### *Afternoon Meeting of Regents*

The Regents convened again at 4:30 o'clock with eight present. This session was devoted to hearing reports from the following special committees:

Protective Dentistry, Fellowships and Grants-in-Aid (Research Committee) and American Association for the Advancement of Science.

Adjournment. 6:30 o'clock.

#### THIRD SESSION

##### *Monday Afternoon, Feb. 22*

The Board of Regents convened on Monday afternoon, Feb. 21 at 2:00 o'clock, with seven present.

The Board approved request for Grants-in-Aid and Fellowships to the extent of \$750.00 for fiscal year July 1, 1943 to June 30, 1944.

It was voted that a By-laws committee be appointed to consider desirable amendments to the By-laws, for submission to the membership by mail vote, in view of the possibility that considerable time might elapse before a regular annual meeting of the College could be held.

The Regents accepted with regret the resignation of Dr. Abram Hoffman (retired) and Dr. Benjamin Tishler.

It was voted that nominations of men in the regular armed services of the government should come from Fellows in the same branch of the regular armed forces and further that the nominations of persons now in the armed forces, but not in the regular army or navy, bear the signature of Fellows from their home state.

It was voted to have the Sections of the College again assist in the conferring of fellowships as in 1942. Friday, November 19, 1943, has been tentatively set as the date for this, if found to be convenient to the majority of the Sections.

Election of officers by mail ballot was again authorized.

The next meeting of the Regents was set for Thursday, Oct. 14, 1943, at Cincinnati, Ohio.

## EDITORIALS

### IS THE M.D. DEGREE A PREREQUISITE FOR EFFECTIVE RESEARCH IN DENTISTRY?

The opening paragraph of an editorial on the above subject, in the issue of this *Journal* for March, 1942 (page 85), is quoted below:

"The issues of this *Journal* for March and June, 1941, contained—under the above title—a paper (page 1) and also a supplementary editorial (page 141), each of which answered in the negative the question in the title. The said paper and editorial were elicited by claims emanating from Harvard to the effect that the primary purpose of the new dental program at that University was the special promotion of dental research, which, it was alleged, has been deficient because—unlike medical research—it has not been based on the professional education required for the M.D. degree. The paper—which presented data from the Yearbook (1940-41) of the Federation of American Societies for Experimental Biology—showed 'that less than half the whole number of persons in the membership of the Federation received the M.D. degree.' The related data indicated 'clearly that very much, probably most, of the important research for the advancement of medicine is being accomplished by men who have not taken "courses for the M.D. degree," and that *the M.D. degree is not a prerequisite for effective research in either medicine or dentistry.*' The editorial—which referred to data in the second edition of 'Dental Caries' (1941)—stated that of the '237 authors or groups of authors, representing accumulated research in this field in twenty-six countries . . . 55 have received the M.D. degree. Notwithstanding the earnest efforts of these 55 physicians among the many workers in caries research . . . agreement as to how dental caries may be prevented has not yet been attained.' There are no indications in the said volume that the research accomplished by dentists has been inferior, in any respect, to that done by those who received the M.D. degree."

Here the reader should recall the fact that the national autonomous research societies in the Federation of American Societies for Experimental Biology (now six in number), and their membership, constitute a large representative group of the personnel in research in "scientific medicine." The paragraph quoted above was followed by a comparison of the data mentioned therein with the corresponding records in the Federation Year Book for 1941-42. This comparison confirmed all related conclusions published in 1941. The analogous data relating to the elections to membership in the Fed-

eration in 1942 were published by the Federation as of December, 1942.<sup>1</sup> In furtherance of this inquiry and these comparisons, accompanying *Table I* includes, with the data for 1940 and 1941 as previously published in this *Journal*, also the related data for 1942.

The data in the three double columns in *Table I* are in close agreement, support all of the conclusions drawn in 1941 and 1942 from the data in the first two double columns, and warrant the following summary of main indications:

(1) A majority of those who are engaged in the advancement of scientific medicine, as represented by the six *research societies* in the "American Federation," do not have the M.D. degree.

TABLE I

*Distribution of indicated degrees held by the persons elected to active membership in the Federation of American Societies for Experimental Biology, at annual meetings in 1941 and 1942; compared with analogous data for total membership in 1940.*

Degrees in medicine or "medical sciences"*	Total membership		New elections to membership			
	1940 (1639)		1941 (150)		1942 (138)	
	No.	%	No.	%	No.	%
(a) Do not have M.D. ....	878	54	84	56	78	57
(b) Have Ph.D. or Sc.D.;						
<i>not M.D.</i> .....	841	51	81	54	73	53
(c) Have Ph.D.; <i>not M.D.</i> ...	811	49	77	51	69	50
(d) Have M.D.; <i>not Ph.D.</i> ...	608	37	47	31	42	30
(e) Have <i>both</i> Ph.D. and M.D.	153	9	19	13	18	13
Ph.D. stated first;						
<i>M.D. second</i> .....	95	6	11	7	8	6
<i>M.D. stated first;</i>						
Ph.D. second .....	58	4	8	5	10	7
(f) Have neither Ph.D.						
<i>nor M.D.</i> .....	67	4	7	5	9	7
Of these: have Sc.D. ...	30	2	4	3	4	3

\*In 1940 and 1941 the Federation consisted of the (1) American Physiological Society, (2) American Society of Biological Chemists, (3) American Society for Pharmacology and Experimental Therapeutics, (4) American Society for Experimental Pathology, and (5) American Institute of Nutrition. The elections to active membership in 1942 include those of a new member of the Federation—the (6) American Association of Immunologists. Of the elections to membership in 1942, as recorded here, the American Association of Immunologists added 8, of which 6 have the Ph.D. degree; 2, the M.D. degree.

<sup>1</sup>*Federation Proceedings* (new quarterly publication); 1, 374; 1942, Dec.

(2) Of the minority of the active members who received the M.D. degree, a large proportion also completed *graduate education* in sciences leading to award of the Ph.D. degree—either before or after graduation from medical schools.

(3) The data in lines (a) and (d) in *Table I* show a consistent *tendency*—a continuing decrease in the proportion of newly elected active members who have the M.D. degree. There is evidently no trend toward completion of elementary courses leading to award of the M.D. degree as a *sine qua non* for medical research.

(4) Half the number of active members of the Federation completed the *graduate* education in sciences leading to award of the Ph.D. degree, and do not have the M.D. degree.

(5) Since the M.D. degree is evidently not a prerequisite for effective research in medicine, there is no factual basis for the assumption that the education it represents is a prerequisite for effective research in dentistry.

In emphasizing the general conclusion from the data of these three annual tabulations, that the foregoing data fail to support the claim at Harvard that dental research has been deficient because most of those who engage in it have not passed courses leading to award of the M.D. degree, it may not be amiss to repeat the following comment in an earlier discussion of this situation (this *Journal*, 8, 7; 1941, Mar.):

"The many who, although not graduates of medical schools, conduct competent research in medicine, are successful for broad reasons: they acquire fundamental medical knowledge in their own individual ways as *continuing students*, without taking 'courses for the M.D. degree'; and they achieve success, in this as in any field of research, not by reliance upon superficial, conventional, elementary knowledge—like that in 'courses for the M.D. degree'—but instead by applications of new procedures in unconventional ways in intensive study deeply of particular problems."

This editorial was projected as a continuance of the inquiry begun with the article under the above title published in the issue of this *Journal* for March 1941 (pages 1-8). The recession of the Harvard Plan, as recently announced (page 168 of the June issue of this *Journal*), seems to imply that the extensive, elementary, and gen-

eral "courses for the M.D. degree" are no longer regarded at Harvard as prerequisites for successful research in dentistry.—*W. J. G.*

#### RESEARCH NOTES ON FLUORINE AND DENTAL CARIES

At a session of the twelfth annual Greater New York Dental Meeting (December, 1942), the present writer included, in a "résumé of research on dental caries," the following allusions to fluorine (chiefly quotations from the second edition of "Dental Caries," edited by him in 1941):

"There is much active interest in the relation of fluorine to the quality of enamel and the possible use of fluoride to prevent caries. 'If fluorine is present in *optimal* amount during the formation of enamel, the subsequent caries-resistance of teeth is greatly increased' (*Cox*). *Mottled enamel* results from the ingestion (usually in drinking water) of *excessive* quantities of fluorides during the formation of enamel, but this effect is not thus produced in fully formed enamel. . . . 'An endemic-fluorosis area in Northern India showed 100 percent mottling of both deciduous and permanent teeth, and an extremely low incidence of caries' (*Day*). . . . Fluorine is a normal constituent of teeth (*McClendon*). There is more fluorine in enamel of sound teeth than in that of carious teeth (*Armstrong*). Enamel fluorine may be in caries-resistant equilibrium with magnesium (*Csernyei*); may be necessary for development of caries-resistant teeth (*Cox*). . . . In diets given to rats, during periods of enamel formation, fluoride increased resistance to caries in mottled molar enamel (*Cox*); also in molar enamel that had not become mottled (*Hodge*). 'For the molar teeth of mature rats that received 20 parts per million of fluorine (as sodium fluoride), in water for sixty days, there was no change in the proportion of fluorine in the *dentin*; but in the *enamel* of the same teeth, there was an increase of 36 percent. The extra fluorine in the enamel was evidently absorbed through the outer surface of the tooth, not *via* the *dentin*' (*Armstrong*). Some observers found that incidence of caries may be diminished by treatment with fluoride (*Bibby*, *Cheyne*, *Cox*, *Dean*, *McClendon*, *McClure*, *Sognnaes*). The 'fact that concentrations approaching the minimal threshold of endemic dental-fluorosis (1.0 p.p.m. F) were still associated with low caries-experience, indicates [that] concentrations less than 1.0 p.p.m. F in public water-supplies may be significant for [the] caries problem' (*Dean*). 'Caries once started in mottled teeth extends rapidly. These conditions suggest caution in attempts to build caries-resistance into teeth by addition of fluoride to public water-supplies as a public-health procedure' (*Smith*). A valuable related review of findings and opinions on fluorine as

'a therapeutic agent for dental caries,' by *Hodge*, was published by the Council on Dental Therapeutics in the issue of the *J. Amer. Den. Assoc.* for November 1942 (pages 2063-8)."

Since the meeting at which the foregoing statements were read, the present writer, in occasionally responding to inquiries and to invitations for suggestions for research in this field, included the gist of the following notes, which are presented here for whatever constructive value they may have.

(1) The manner in which fluorine—as, say, fluoride in drinking water—may prevent incidence of caries in an *erupted* tooth has not yet been established. Theoretically, fluorine thus taken into the body might act on the enamel from the outside or the inside of a tooth, or in both ways, and thus change the quality and resistance (solubility) of the affected enamel. In the Carnegie Foundation's Bulletin No. 19 (1926), consisting of the present writer's report of his study of dental education, suggestions of desirable research in these and analogous relations were summarized in part as follows (pp. 174-175):

"The exact elementary composition and the mineralogical constitution of the inorganic matter in enamel, with particular reference to variations in the resistance to chemical change. . . . Nearly all of the mineral matter in dental enamel is disposed in microscopic hexagonal rods or prisms. In the light of accordant data of incomplete chemical analysis, this particular physical state, which is unusual under biological conditions, suggests that enamel consists chiefly of apatite (*ἀπατᾶν*, to deceive), a phosphatic mineral that is widely distributed in many varieties and which *for centuries was mistaken for others*. Among the common forms of apatite are hexagonal crystals, which, colorless or varicolored, transparent or opaque, according to differences in the nature of associated materials, are suggestive of analogies with normal enamel in some respects and with 'brown stain' or mottled enamel in others. Although dental enamel is composed mainly of tri-basic calcium phosphate, it also contains magnesium, manganese, chlorine, fluorine, and carbonate. The ordinary types of apatite include forms consisting of three parts of the phosphate and one of calcium chloride in one instance [ $3\text{Ca}_3(\text{PO}_4)_2 \cdot \text{CaCl}_2$ ], and *three parts of the phosphate and one of calcium fluoride in another* [ $3\text{Ca}_3(\text{PO}_4)_2 \cdot \text{CaF}_2$ ]. In familiar kinds of apatite, calcium is replaced by magnesium or manganese, and chlorine or fluorine by hydroxyl or carbonate, indicating great responsiveness of the mineral to external influences during

its formation. All of these elements or radicals are common to animals and plants, and are present in an ordinary diet.

"The adjustment of the constituents of enamel during its normal development depends not only on sufficiency and balance of the diet but also on equilibrium of special processes of coordination. The particular forms of apatite that may be produced in enamel are presumably affected by such glands as the parathyroids and thymus, fluctuations in their adaptive influences doubtless causing significant variations in its quality. If these deductions should be verified and extended by research, it might be possible physiologically to strengthen enamel against the action of such external chemical agents as those produced by bacteria, *for its resistance may vary with the proportions of the units in the mineralogical structure, or with the nature of the structure itself, and these may be controllable.* Although the recent discovery of protein in enamel complicates these views, it also emphasizes the importance of a thorough study of enamel, with special reference to elementary percentage composition, chemical character, mineralogical constitution, histological structure, resistance to solution and disintegration, and relation to the prevention of decay of teeth, the most general and urgent problem in dentistry." [Italic not in original.]

Prospective research, on the basis of the quoted data, includes these problems: Is the resistance of enamel to the solvent (decalcifying) action of acids of oral fermentations *greatest* when the apatite structure contains a maximum proportion of fluorine, and *weakest* when that structure contains a maximum proportion of carbonate ( $\text{CO}_3$ )? Can a low fluorine content in an apatite structure be raised to a high content, *without disorganizing effects*, by treatment (contact) either with apatite powder containing a high proportion of fluorine or with fluoride solution? Does the continuous presence of adequate nutritive supplies of fluorine during the *development* of teeth assure the highest fluorine content in the enamel and also freedom from the physical defects that commonly are sites of early caries?

(2) If the development of acid resistant enamel in an *unerupted* tooth is related to the amount, nature and associates of the fluorine absorbed from the blood into the tooth, might not the *optimal* fluorine nutritive conditions be dependent upon adequate amounts in the diet of the chemical forms (compounds) of fluorine that are

contained in teeth? In that event might it not be more advantageous to add to a fluorine-deficient diet an innocuous *biological form of "balanced" fluorine*—ordinary excesses of which would be harmless—rather than a toxic substance such as sodium fluoride which, even in very minute quantities, may be injurious from overdosage? Enamel consists almost entirely of the constituents of several apatites. The mineral substance of bone—a mixture chiefly of apatites—is closely similar to that of enamel; the fluorine therein, unlike a simple fluoride, is nontoxic. When bone or a dietary modification of it is eaten, it is digested and portions are assimilated physiologically; and only very great excesses could be expected to cause mottled enamel. The following personal experiences are the basis for a logical practical inference from the foregoing.

Beginning in 1895, while an assistant in the Yale Biochemical Department and later at Columbia, the present writer conducted chemically balanced nutrition experiments on caged dogs to determine accurately the effects of definite dosage with various substances. In this work an effort was made to select kinds and conditions of food that could be assembled in large quantities, analyzed accurately, and combined in weighed daily portions from large dried or refrigerated reserves, thus giving the dogs adequate nourishment of known biochemical qualities, and also adding to the convenience of the workers and facilitating their more rapid progress in the projected researches. One of the ensuing special mechanical and chemical difficulties was the quantitative collection, desiccation, and uniform mixture by pulverization, of all intestinal eliminations per day preparatory to analysis. After a number of unsatisfactory trials of several possibilities, the favorable effects (on dog feces) of diets containing bone—the feces were chalky and could be easily dried and pulverized—led to the addition to the selected routine daily food-water mixture of the equivalent, for the average dog, of about a *tablespoonful* (1 gram per kilo) of powdered bone ash—a cheap commercial product, which presumably contained some simple fluoride produced in the incineration process. The experiments also included special tests of the effects of very much larger proportions of bone ash;

very large quantities were easily tolerated. One animal, kept from birth in a cage for special reasons unrelated to the effects of bone ash—to note the influence of prolonged conditions—was on the routine daily diet, containing bone ash, from weaning until death eleven years later (1917-1928). Mottled enamel was not under investigation at the time, but the teeth were repeatedly examined and no mottling or other deficiency was noted. During a period of over 40 years of experimental use of commercial bone ash, in food for dogs—mentioned meanwhile in numerous descriptions of biochemical research—there have been no observations of ensuing dental anomaly, and none of abnormality attributable to the bone ash.

Since daily ingestion by dogs for long periods of relatively large amounts of bone ash was free from toxic effects, it seems probable that the daily addition to a child's diet of a small amount—say a *teaspoonful or less*—of powdered bone (or of bone ash if preferred) would be not only harmless but also beneficial for both skeletal and dental development, because it would not only yield needed mineral ingredients but also present them *in conditions and proportions* closely approximating those of teeth and bones. The amount of fluorine in “*balanced*” *physiological form* in a teaspoonful of powdered bone, if given as *sodium fluoride*, would promptly cause toxic effects.

If an erupted tooth tends for any reason to lose fluorine that must be replaced at the surface of the enamel to keep it normal and to prevent caries, such renewals might occur naturally by action of fluorine-containing material produced in oral secretions from adequate internal nutritive supplies. If the observed protective effect of fluorine against caries — as reported by various observers in studies of the influence of fluorine-containing drinking waters, of the local application to teeth of fluoride solution, etc.—*is not due solely to direct external action* on enamel or on oral organisms, the suggested test of the usefulness of powdered bone in the diet might have very fruitful results.

(3) If the protective effect of fluorine against caries *is due chiefly or wholly to direct external action* on the enamel, possibly powdered

bone applied as a dentifrice would gradually yield sufficient fluorine in a beneficial form to afford protection without any of the dangers of overtreatment that accompany use of fluoride. The abrasive effect of powdered bone could be reduced to a minimum by brief preliminary treatment of the powder with dilute physiological acid for *superficial* decalcification (softening) of the particles, followed by prompt neutralization with lime-water and washing, before drying and preparation for use. In 1899 the present writer discovered the mucoid constituent of bone, obtaining it by a process of slight superficial decalcification of ox femur bones immersed in dilute acid, removal of the softened surface by shaving (scraping), recurrent repetitions of this procedure, washing the collected shavings to remove excess of acid, and extracting the osseomucoid by treatment of the bone shavings with lime-water. When after extraction of the osseomucoid the washed shavings were dried, they were hard; pulverized, they yielded a product similar to powdered bone but softer. The proposed treatment of powdered bone would be much more restricted, with the same mechanical result. Remnants of powdered bone in the mouth, after application to the teeth as a dentifrice, would not yield acidic products but might give up additional protective fluorine; and when swallowed would be harmless. It might be found, however, that the fluorine in powdered bone would not be soluble or active enough to be transferred in sufficient amount, during use as a dentifrice, to afford the anticipated protection against caries. Bone ash, compared in collateral dentifrice tests, might be more effective than powdered bone because it presumably contains some fluorine in more soluble forms.

These notes are not intended to be a comprehensive review of the fluorine-caries situation. As was intimated in the paragraph following the first quotation, they are presented to stimulate researches in this field. Until tested experimentally, these opinions express possibilities only.—*W.J.G.* [This editorial had been prepared for an earlier issue but was more conveniently included here.—*Ed.*]

## TEMPEST IN A TYPEWRITER

Once there was a "Tempest in a Teapot," but in this case it is a "Tempest in a Typewriter" being a title borrowed from the *San Francisco Chronicle's* magazine, *The World*.

There are many things, both real and ideal, current today which cause many conflicts even in the best of minds and which might easily come under a title, composite of the two above mentioned.

The title of this discussion comes from a story in the magazine previously cited. It appears that a certain pamphlet, *What's this—the Gestapo?*, fell into the hands of the F.B.I. Its author was Rose Waldon Lane, "novelist and biographer of Henry Ford and Herbert Hoover," who participated in a listener's pool, concerning Federal Social Security. She addressed a postcard to one Samuel Grafton, New York radio announcer, expressing her disapproval and further, her opinion that "German Social Security measures of the past 70 years had been responsible for the collapse of the German republic." The remainder of this story is of particular interest at the present moment, in just one point. She was told that what she had written constituted "subversive activity." Her reply was, "Then I'm subversive . . . I'm against all this Social Security."

This is an intensely interesting and active era in which we are living or through which we are passing. It is one of social change. But, why?

There is no doubt but that all human relations resolve themselves ultimately into one, or, there is one term which will include all whether economic, political, health, health service, etc., namely, social. The use of the terms then, social science, social relations, etc., has a general rather than a specific connotation. It means the whole of our human relations.

A cursory review of history reveals the fact that changes have been made in the past and that social or human relations have advanced a few degrees with each change until we have reached the present high point or low point, as one may choose to call it. How-

ever, with due respect to whatever may be one's choice, advance has been made and on premises, both in word and in act, of similar nature. Witness the following statement dated June 19, 1621:

"If any man be so addicted to his private, that he neglect the common, state, he is void of the sense of piety, and wisheth peace and happiness to himself in vain. For, whoever he be, he must live in the body of the Commonwealth and in the body of the Church."

Today we may not, or we may think we do not live in the body of the church, but we do still live in the body of the Commonwealth and we are not casting aspersions or thrusts, we are passing laws. We must look at our situation. We have come now as a whole to attempt such a set-up that all may have security from the "cradle to the grave."

It is common knowledge that conditions have so changed that small businesses are out. More and more people are forced to depend on "salary," and it is claimed 90% earn less than \$2000.00 per year. With it all, individual initiative is going as well. We have left behind that thing of former days, "rugged individualism." Workingmen have combined into unions and hiring can be done only through hiring halls. Large corporations have taken the places of men of wealth, so that no one owns the business. Personality is gone. Stockholders, executives and union workingmen all demand returns from the institution. They all want the egg of the golden hen.

Health agencies, individual practitioners and groups, in clinic and other forms, have been successful in extending men's lives. There are many more people over thirty years of age, than at any other time in the history of the world. What shall be done about it? The medical and dental professions are giving more diligent study to these questions now than at any time previous. We must have an answer and a plan, so far as health service is concerned, else we will have to take one prepared for us. What will be our answer? Several plans have been proposed; several governments have plans pending, to be enacted into law; and some groups are trying to meet the situation.

But as further study of plans is made and even transferred into more concrete realities, the following is good principle to bear in mind:<sup>1</sup>

"According to the United States Census, the number of people past sixty-five years of age in our population has increased during the last ninety years from 2.6 per cent to 6.8 per cent. If this trend continues, and I think this is assured by more of science and the better art in medicine, fifty years hence about fifteen out of every hundred people will be over sixty-five years old. I think we can add that, by and large, this army of older people fifty years hence will be even better qualified for useful work than are the people of the same age today. Thanks to more science and better art in today's medicine our larger aged army of 1940 is less decrepit than was our smaller army of sixty-five-year-olds a hundred years ago. It is sheer waste, bad biology, and gross injustice all around to feed, house, and clothe this army of idleness. Old age pension is not the answer. The dole is not the answer. The only answer is useful work for pay, plus sickness and accident insurance. When aging has rendered us incapacitated for useful work, we are truly sick, and sickness insurance should meet our needs. I think I am discussing important principals, not arguing about names, not fighting wind-mills. Still, it must be admitted that at sixty-eight some people fail to recognize their own delusions. I think that useful work is a privilege and and a blessing, not a curse. It is also a biologic and social duty as long as we can carry on. Because the probability of less elastic arteries and less cardiac reserves, not to mention less strength in the skeletal muscles, the worker past sixty should, as a rule, not be put at tasks calling for the physical power that a worker, age twenty to forty, may deliver with safety. Moderation in all things, and a thorough medical check up twice a year will aid us in keeping fit to carry on. There is the prevailing view that quitting useful work before the infirmities of old age and specific disease compel it, hastens the age decline and brings on death sooner. It is difficult to check this view by adequate controls. So far as I know, this view is based on conspicuous instances, forgetting the exceptions. But to the extent that idleness decreases the zest of living, and unhappiness and depressing mental states actually impair some of our body machinery, it may be true; especially if the pleasure from good food is still strong, for in that case injurious over-eating is likely to become the rule. I dream of a tomorrow when our millions of men and women, well past the chronologic three score will say, with Albert J. McCray, age seventy-one, now running a drill press of a

<sup>1</sup>An excerpt from an article on "The Older Worker" by Dr. Anton J. Carlson, appearing in the July, 1943, issue of *The Scientific Monthly*.

Douglas Aircraft plant, 'I'd rather have a job than a pension any time' (*Time*, Dec. 14, 1942) for that spirit helps to keep the older worker young, and aids in making America stronger."

The dentist is an individual, small business man—where shall he stand?

#### DISCONTENT: STIMULANT OR DEPRESSANT?

Many successful men indicate regret that they did not select other occupations. The following comment by Horace shows that this condition was common 2100 years ago:

*"How does it happen, Mæcenas, that no one is content with that lot in life which he has chosen, or which chance has thrown in his way, but praises those who follow a different course? . . . The lazy ox wishes for horse trappings, and the steed wishes to plough."*

This quotation might now be applied to some men in every profession. Discontent may be due to constructive desires for perfection or betterment, leading to discovery or invention—conditions at the foundation of all progress. Discontent may arise from realization of personal ineptitude or from failure to derive satisfaction from work systematically well done. Discontent often is traceable to vainglorious personal aspirations; to fanciful ideas of the happiness of others: to denial of coveted honor or credit associated with unattained status or relationship; and so on through many phases of perversity. Discontent that serves as a mainspring for reflection, skepticism, inquiry, experiment, invention, discovery, achievement—although possibly unhappy for those directly affected by it—is socially constructive and need not be disheartening. Such discontent is desirable as a stimulant in every profession. But why any dentist should be discontented because he is not a member of another health profession, assuming he is competent in dental service and has no delusions rooted in envy or vanity, is puzzling.

Dentistry is one of the leading professions—so accredited in statutes, in education, and in public repute. Its practice is a main division of health service; its ministrations are needed recurrently by practically every person; there is increasing demand for public plans to

assure distribution of its benefits to the whole population. Its practitioners, steadily increasing in number, constitute the second largest health-service profession. What ails the dentist who is professionally dissatisfied under these inspiring conditions—in such respected opportunities, for such appreciated services? Perhaps my inability to answer this question is due to opinions of dentistry that I, a layman, have acquired through a long period and which were expressed in this *Journal* nearly seven years ago, in part as follows: (3, 116; 1936, Sept.):

*"I respect dentistry as one of the most useful, effective, and desirable agencies for the promotion of comfort, health, and welfare. I admire dentistry for its nobility of purpose; its efficiency in procedure; its value in achievement; and its progressive effort, through self-examination and self-criticism, continually to make itself better and more serviceable. My appreciation of the dental profession as it exists today, my faith in its future, my wish for its cumulative support, and my desire to see it fully esteemed everywhere at its true value, are among the sentiments that hold my abiding active interest."*

The dentist who fails to idealize dentistry as a philosophy of human welfare, and as a procedure in public service, also fails to lay enduring foundations for his professional happiness.—W. J. G.

[Reprinted from the issue of *Annals of Dentistry* for June, 1943; cover page 2.]

## CORRESPONDENCE AND COMMENT

### MORE LIGHT ON THE "HARVARD PLAN"

A group of short contributions on the Harvard Plan have been editorially coordinated below, to eliminate repetitions and to present them in a definite sequence.

(1) *President of Harvard says "the scheme has not been successful"*

President Conant's address at the 75th anniversary of the Harvard Dental School on April 16, 1943,<sup>1</sup> contains the following dignified admission of failure, which for historical reasons should be included with the criticisms of the Harvard Plan that have been published in this *Journal*:<sup>2</sup>

"Tonight I propose to report on the first years of this new experiment. Every change is in the nature of an experiment, and I say quite frankly that in *several important matters this experiment has not worked*. Whether it would have worked except for the war, no one can tell. The fact remains that *the scheme under conditions of today has not been successful*. As a consequence we have decided to alter the procedure, change the course somewhat, if you prefer a sailing metaphor. The difficulty has been one<sup>3</sup> that some have predicted from the start, namely, that a man enrolled for the joint degrees of M.D. and D.M.D. might shift his interest to *some other branch of medicine* rather than continue in the course headed for the D.M.D.<sup>4</sup>

"*The student situation has been unsatisfactory*. Several factors have undoubtedly influenced the situation. The confusion and accelerated curricula due to the war cannot be ignored. And *offering two degrees at the same time put an emphasis on degrees that attracted to the School men who had no special interest in the field of dentistry*. At the present time, of course, the

<sup>1</sup>Conant: *Harvard Den. Alumni Bul.*, 3, 67; 1943, June.

<sup>2</sup>The footnote on page 168 of our issue for June, 1943, presents a summary of references to previous allusions, in this JOURNAL, to the Harvard Plan. See also page 211 of this issue.

<sup>3</sup>The words, "The difficulty has been one," exactly reproduce the original. More than one difficulty was mentioned.

<sup>4</sup>The words, "continue in the course *headed for* the D.M.D. degree," seem to refer to the course *within* the School. The associated words, "shift his interest to some other branch of medicine," seem however to allude to a "shift of interest" *after* graduation from the School.

regulations of Army and Navy make mandatory the limitations to three calendar years leading to medical or dental degrees. For all these reasons the original plan has been altered. *The fundamental principles of the 1939 program have been embodied in a reorganized plan consistent with present-day conditions.*" [Italic not in original.]

The "reorganized plan," to which the last sentence in this quotation refers, was indicated—in quotations from an official Harvard "news release"—on page 168 of the issue of this *Journal* for June, 1943. See also the general comment that follows the fifth section, below.—(1).<sup>5</sup>

(2) *Early official professions regarding the Harvard Plan*

Nowhere in President Conant's address, which included the foregoing quotation, is there any repetition of the early professions of the primary purpose of the Harvard Plan. An official "release" by the Harvard University News Office on June 17, 1940, contained these statements ascribed to President Conant (this *Journal*, 7, 278; 1940, Sep.):

"The new [dental] program" aims, on the foundation of medical education (M.D. degree), to attack "the great public health problem of dental disease *at its source*, through advancement of the study of causes of such disease and of its prevention," and thus to extend (through discovery by more effective research) "the scope of adequate dental protection . . . to large numbers of our people [80 per cent] for whom dental attention is not now available. . . . The provision of such increased care, even if financially feasible in the near future, would not be a real solution of the problem. The real solution would appear to be in *advanced knowledge* of the causes of dental disease, and *resultant* improvements in the methods for *preventing* such disease. . . . The new program will attempt to add to the dentist's equipment a wider and deeper knowledge of *medicine*, and *hence* a more favorable background for the advancement of study of essential causes and preventive method." [Italic not in original.]

On January 24, 1941, the *New York Times*, in a lengthy "special from Cambridge, Mass., January 23," quoted the following comment about the plan of the School of Dental Medicine in President Conant's annual report to the Board of Overseers:

<sup>5</sup>The terminal numerals in parenthesis are inserted for purposes of identification in the records of this JOURNAL.—[Ed.]

"The best chance of improving the dental health of the country in the years ahead is to intensify the study of dental disease, of its *causes*, and of methods for its *prevention*. In this direction *alone* there seems to be real promise of aid for the 80 per cent of the population who now receive inadequate dental treatment or no dental care of any sort." [Italic not in original.]

These and other statements, in the Harvard records, alleged in effect that courses leading to the M.D. degree were expected *automatically* to impart hitherto unattainable power *in research* speedily to discover the causes of dental diseases, and to perfect ways and means to prevent all dental disorders. But, if medical education (M.D. degree) would enable those who receive it to discover promptly how to prevent disorders of the teeth, one wonders why the same education fails to give physicians knowledge and wisdom sufficient to prevent such prevalent analogous ailments as those—to refer only to nearby locations—of the throat, nose, ear, eye and scalp? The common cold and many degenerative diseases are among the increasing perplexities that baffle the most competent and faithful medical efforts.<sup>6</sup> Despite these well-known facts, the Harvard Plan was announced as a procedure for assured discoveries of the causes of dental disorders and for development of means to prevent them; thereby soon to convert dental health-care into successful advisory preventive service easily obtainable by 100 per cent of the population; and, as a consequence, to eliminate the need for technical skill and mechanical treatment in dental practice.

It has been shown, with data relating to the membership of the Federation of American Societies for Experimental Biology—published cumulatively in this JOURNAL during the past three years (10, 211; 1943, Sep.)—that the M.D. degree is not a prerequisite for effective research *in medicine*, and that there is also no factual basis for the assumption that the education the M.D. degree repre-

<sup>6</sup>See the editorial in the issue of this JOURNAL for June, 1943 (page 160), on "Contrasts in Prevention in Medicine and Dentistry," containing this comment: "Most of the brilliant successes in preventing disease have been limited to disorders of the *acute* type. . . . Has anyone discovered means to prevent leprosy, tuberculosis, diabetes, arthritis, cancer, diseases of the circulatory system, mental diseases and other *chronic* disorders analogous to those affecting teeth?" [Italic not in original.]

sents is a prerequisite for effective research in dentistry. In this demonstration, the first of these articles (8, 4; 1941, Mar.) stated this collateral evidence:

"Although the M.D. degree is required for admission to dental practice in some parts of Europe, there is no evidence that dental research by physician-dentists is more advanced there than in this country. If knowledge of elementary undergraduate medical details would assure early discovery of causes of dental diseases and prompt development of methods for their prevention, why were not these very desirable discoveries made long ago by European physician-dentists?"

President Conant's failure to repeat the early profession—that the Harvard Plan was intended to assure exceptional achievement in dental research—seems to indicate that restatement of this assumption is no longer regarded as reasonable.—(2)

(3) *New avowals of purpose of the Harvard Plan*

Did the early official statements in behalf of the Harvard Plan (some quoted above) indicate its real purpose? Conditions attending the early announcements led many to believe that the plan was intended to initiate a "pioneer effort" to bring about, by indirection, the partition of dentistry into (a) a *mental* portion, to be made a specialty of medical practice ("dental medicine"), and (b) a *manual* portion, to be excluded from that specialty, but to be its technical supplement—the manual work to be done mainly by technicians. This related statement was published on page 363 of the issue of this *Journal* for December, 1940:

"Would the [Harvard] Dental School and its four-year dental curriculum be discontinued—and a medical name and a five-year curriculum that will be primarily medical be substituted—if the new program were not designed as a pioneer effort to convert a portion of dentistry into a medical specialty? The present writer does not know that this design has been avowed in any public announcement. But would it be reasonable to assume that a committee of distinguished medical professors [who formulated the plan] in the leading American university have not foreseen the obvious effects, on the status of dentistry and the dental profession, of this purposeful coordination of changes in a contemplated drastic reorganization of dental education, if the program were enacted?"

The following additional quotation from President Conant's anniversary address—(1), above—seems to contain an official avowal of a general purpose that accords with the foregoing deductions (page 70):

"It is believed that the soundness and vitality of the *basic assumptions* underlying the formation of the School of Dental Medicine are attested by the fact that it is possible to *change the form* of the plan to meet new and unusual conditions *without losing the spirit*. . . . There are just two things in connection with the future of dental education at Harvard on which I venture to be dogmatic: (1) We have no intention whatsoever of abandoning the *fundamental principles* in this reorientation of our dental work, and (2) we have no idea whatsoever of abandoning instruction in dentistry or giving up our interest in trying to carry on *our seventy-five year old tradition of leadership in that branch of the medical profession*. On these points I can speak with confidence not only personally but on behalf of the Governing Boards." [Italic not in original.]

The allusion to dentistry as a "*branch of the medical profession*" seems to be significant of wishful thinking. Why the implied expectation has not been declared frankly and fully from the beginning, as a definite aim in projected leadership, is puzzling, for in that event all—including those who disagree—would have respected that courageous and candid avowal of faith, purpose and endeavor. There is nothing new or unusual in the desire to make dentistry a specialty of medical practice—it has been expressed recurrently and variously for many years. Meanwhile dental practice, by an independent profession in this country, has steadily grown more proficient and serviceable—and dentistry is now the second largest health-service profession in the United States. Medicine and dentistry have been organized, and by statute are defined, as two separate and independent professions. The transfer, in whole or part, of a portion of one practice to the other would require convincing demonstrations of ensuing public advantage. Ambition to acquire credit for Harvard, in initiating a movement to bring about such a change, would not be enough. That medicine and dentistry are divisions of health service is a truism; that physicians and dentists are members of the same "profession" is not a valid assumption.

The following propaganda relating to the *second* class (nine

members) admitted to the Harvard School of Dental Medicine on July 1, 1942, as published in the issue of the *Harvard Dental Alumni Bulletin* for November, 1942 (page 12), presents an interesting disagreement with President Conant's allusion to these students—(1), above—and a direct agreement with his reference to dentistry as a "branch of the medical profession" (last preceding quotation above):

"In *pioneer* ventures numbers alone are of little significance. Intelligence, courage, and vision are qualities that *leaders* must possess. These young men have these qualities and we look forward to their becoming leaders in the *development of dental medicine as a specialty of medicine.*" [Italic not in original.]

According to President Conant's judgment, these men (some or all) were not prospective leaders as acclaimed in this quotation, but instead were "men who [attracted by the easy acquisition of two professional degrees 'at the same time'] had no special interest in the field of dentistry."—(3)

(4) *On the Harvard leadership acclaimed by President Conant*

In the quotation from President Conant's address—(3), above—he alludes to Harvard's "seventy-five year old tradition of leadership in that [dental] branch of the medical profession." The following quotation from the *Carnegie Foundation's Bulletin* (No. 19) on *Dental Education* (1926, page 383) throws direct light on the reality and degree of this leadership:

"A recent experience of the Administrative Board of the Harvard Dental School, in an endeavor to make the practice of dentistry an accredited specialty of the practice of medicine, illustrates the inherent difficulties in the way of such a transformation. The Board proposed, in effect, that prospective dentists be given an adapted training for the medical degree followed by a graduate training for the dental degree. It was suggested that the first two years of the medical curriculum, a third year in clinical medicine and surgery, and a fourth year in dental technology and clinical dentistry be combined as an acceptable curriculum for the medical degree, and that a fifth professional year in general dentistry, as a graduate year, be offered for the dental degree. This proposal, which was rejected [by the Medical Faculty], encountered some of the serious obstacles indicated elsewhere in

this Bulletin. The medical curriculum is too rigid, and the views of medical state boards and of medical teachers are too unyielding, to permit substitution of training in the essential mechanical and esthetic aspects of dentistry for anything now contained in the required parts of the undergraduate medical curriculum. The establishment of combined curricula for the medical or dental degree or both, on plans that would attach more importance to content than to labels, *for the purpose of developing exceptional capability in prospective practitioners of the most advanced aspects of dentistry*, deserves the attention of all of the universities where the resources for the support of health-service education are abundant, and where the income from fees is not a matter of prime importance." [Italic not in original.]

Perhaps the "reorganized" Harvard Plan will assure some of the public benefits suggested in the concluding sentence of this quotation.

The medico-dental leadership at Harvard, to which President Conant alluded, was the subject of the following comment in the *Annual Report of the Carnegie Foundation* for 1930 (page 84):

"During the past year the Medical Faculty of Harvard University issued a volume of 194 pages entitled: *Synopsis of the Practice of Preventive Medicine as applied in the Basic Medical Sciences and Clinical Instruction at the Harvard Medical School*. Although the full professors in the dental school at Harvard are members of the Medical Faculty, dentistry and all its medical aspects were overlooked in this important book."

President Conant, in emphasizing Harvard leadership, referred to the Harvard Dental School as "the first University Dental School in the country . . . *certainly an innovation*." "The first *University* Dental School in the country" was established at Transylvania University in 1850—seventeen years before the School at Harvard was founded.—(4)

(5) *Comment on dentistry by ex-President Eliot, of Harvard*

President Conant, in his address, paid tribute to the leadership of the last two of his predecessors (Eliot, Lowell). He alluded to Eliot as having "converted a small New England college into a great national university." In that address quotations of Eliot's views include this comment in his "report of 1880-81:"

"Some dentists maintain that a dentist, like an oculist, is a physician with a specialty, and that nothing short of the full course for the degree of

Doctor of Medicine can be satisfactory; others say that a dentist is simply a fine mechanic, and that there is little use of any training except that of the eye and hand. *The Harvard Dental School occupies an intermediate position*, which satisfies neither of these extreme parties." [Italic not in original.]

The following statement by Eliot on dentistry—forty-three years later—in a formal address at Harvard in 1924, was not included among President Conant's quotations:<sup>7</sup>

"I want to congratulate you on the greatly improved standing of the dental profession among the professions. That is one of the most striking changes in public opinion that I have witnessed during my *seventy years of observation of educational progress*. . . . I do not think I have seen during my seventy years of observation of the professions and the means of training them any change so great as that which has taken place in regard to the dental profession, and *to the means of training dentists*. . . . The training a dentist needs is in large part a training in skill of eye and hand. It happens that in acquiring the skill he needs, he must learn to perform with a high degree of skill a great variety of manual and bodily labor. . . . I believe this school acts on the belief that if a young man cannot acquire the necessary skill of eye and hand, then he cannot become a good dentist. . . . *Look forward, therefore, to the future of your profession with great hope*." [Italic not in original.]

During the two decades since Eliot stated these judgments, the advances in dental education and in dental practice that he acclaimed have continued in university dental schools and in dental health-care more rapidly and usefully than ever.—(5)

*Comment.* The School of Dental Medicine, on the "reorganized plan" mentioned in the first quotation from President Conant's address—(1), above:

(a) Reduced the curriculum from five academic years, as set in 1940, to four academic years—or three calendar years (accelerated wartime schedule).

(b) For the first two years, the curriculum will be the same as that in the Medical School during these years—the dental and medical students in each year to be taught together in the Medical School as one class.

<sup>7</sup>Eliot: "Progress of Dentistry," etc., pp. 14, 19, 20, 21; Booklet, Harvard University Dental School, 1925.

(c) The courses of the third and fourth academic years, for candidates for the D.M.D. degree, will be different from those required in these two years of candidates for the M.D. degree.

(d) Only one degree—D.M.D.—will be awarded, at graduation, to students in the School of Dental Medicine.

(e) Graduates (D.M.D.) may continue in the Medical School, *if they so elect*, and may receive the M.D. degree in one and one-half additional academic (one calendar) years. The last two academic years in the School of Dental Medicine will be accepted as an equivalent of one half-year of the last two academic years in the Medical School.

Relieved of the "burden" of maintaining the earlier Dental School,<sup>8</sup> and heavily endowed for purposes of experimentation in dental education, Harvard will accept into each class in its School of Dental Medicine only the very small number of additional students (maximum of fifteen) for whom there will be room in the laboratories of the Medical School *without affecting the preferred large size of the classes of medical students*. This restricted plan, if adopted generally, would speedily result in excessive reduction in the number of needed dental practitioners in this country. The main body of practicing dentists, to be annually renewed and probably cumulatively increased to meet growing public needs, cannot be provided by the university dental schools on any plan that—like the one at Harvard—would greatly subordinate dental students numerically to other preferred groups. [This opinion would be rendered obsolete by the discovery of means to prevent dental disorders that could be taught to and applied by anybody—or by the success of the Harvard "pioneer" endeavor to convert dental practice into a process by which a few physician-dentists would "direct" treatment given

<sup>8</sup>"The Annual Report of the Dean of the [Harvard] Dental School for the same year [1935], in commenting sympathetically on the dental aspirations expressed by the President and on the associated plans [among them a campaign for a dental fund of \$3,400,000], included this statement: 'If these plans can be brought to fruition, and if adequate financing can be secured for the Dental School, *it will relieve the University of one of its [two] biggest burdens at the present time.*'" (This JOURNAL, 7, 366; 1940, Dec.)

by many technicians.] The hope that great dental leaders and discoverers will be produced by the Harvard Plan may be realized and thus outweigh, in public value, the deficiency in the number of graduates of that School. Unfortunately that hope may not be realized. Disappointment would serve constructively as a further indication—of which there have been many during the past century—that the way to improve dental health-care, *in the public interest*, is to increase the ability of the growing and deserving dental profession to solve the problems in dental research, dental education, and dental practice that naturally are the chief concerns and the major obligations of that profession.—[*C. Ed.* (1)]

## NEWS AND NOTES

### THE BEVERIDGE REPORT<sup>1</sup>

By the General Editor of the *Dental Gazette*, London.

For the benefit of members who may not yet have been able to obtain a copy of the Beveridge Report, or found time to study it, some of the paragraphs which are of especial interest to members of the dental profession are reproduced together with a few notes.

The Plan for Social Security contained in the report is put forward as a measure to secure "Freedom from Want."

*Para. 8 (page 6):* "But Want is one only of five giants on the road of reconstruction, and in some ways the easiest to attack. The others are Disease, Ignorance, Squalor, and Idleness."

*One of the main provisions of the plan, therefore, ensures that—Para. 19 (page 11):* "Medical treatment covering all requirements will be provided for all citizens by a national health service organized under the health departments, and post-medical rehabilitation treatment will be provided for all persons capable of profiting by it."

(Where the word medical is used it can be held to include dental.)

<sup>1</sup>With so much talk about Social Security in various forms, including plans for Health Insurance, it seemed well to reprint this analysis of the Beveridge Report taken from the *Dental Journal* of Australia; 15, 288; 1943, June.

To attain this, certain changes in the present administrative machinery are suggested, namely—

*Para. 30 (3) (page 15):* "Supersession of the present system of Approved Societies giving unequal benefits for equal compulsory contributions (combined with retention of friendly Societies and Trade Unions giving sickness benefit as responsible agents for the administration of State benefit as well as voluntary benefit for their members)" and—

*Para. 30 (5) (page 15):* "Separation of medical treatment from the administration of cash benefits."

The bracketed part, para. 30 (3), though thought important and desirable, could be omitted without changing anything else in the whole scheme.

*Para. 60 (page 28):* "Reconsideration leads to the conclusion that the Approved Society system in its present form has served its purpose and had its day. Without belittling in any way the services rendered by all kinds of societies in the launching of health insurance, it is possible to decide that the time has come to make health insurance national. The reasons leading to this conclusion may be summed up under two heads: first, that the Approved Society system has disadvantages for insured persons and involves unnecessary administrative costs, while the compensating advantages which it may provide for such persons can be obtained in other ways."

No alternative, apparently, is given to the Approved Societies to alter their system, so that their wide knowledge of health insurance might be retained.

*Para. 62 (page 28):* "As regards treatment, to provide any form of treatment as an additional, rather than as a statutory, benefit, means that it is given selectively, with reference not to the degree to which it is wanted, but according to valuation results. An overwhelmingly large proportion of the valuation surpluses devoted to treatment benefits in the past has been allocated for the provision of dental and ophthalmic treatment, showing a need for these services which led all the associations of Approved Societies which gave evidence to the present Committee to recommend that these particular forms of treatment should be made available for all insured persons."

*Para. 305 (page 121)—Flat Rate of Contribution:* "The second fundamental principle of the scheme is that the compulsory contribution required of each insured person or his employer is at a flat rate, irrespective of his means. All insured persons, rich or poor, will pay the same contributions for the same security; those with larger means will pay more only to the

extent that as taxpayers they pay more to the National Exchequer and so to the State share of the Social Insurance Fund. This feature distinguishes the scheme proposed in New Zealand, under which the contributions are graduated by income, and are in effect an income tax assigned to a particular service."

The New Zealand plan seems to possess certain advantages now that the number liable for income tax, and the method of collection from workers, has changed from conditions prevailing in 1911. The pros and cons of these alternatives are discussed in paras. 272-276.

The whole plan is based on three assumptions: A, Children's allowances; B, Comprehensive Health and Rehabilitation services, and C, Maintenance of employment.

*Para. 427 (page 158):* "The first part of Assumption B is that a comprehensive national health service will ensure that for every citizen there is available whatever medical treatment he requires, in whatever form he requires it, domiciliary or institutional, general, specialist, or consultant, and will ensure also the provision of dental, ophthalmic and surgical appliances, nursing and midwifery, and rehabilitation after accidents. Whether or not payment towards the cost of the health service is included in the social insurance contribution, the service itself should—

"(i) be organized, not by the Ministry concerned with social insurance, but by the Departments responsible for the health of the people and positive and preventive as well as curative measures;

"(ii) be provided where needed without contribution conditions in any individual case.

"Restoration of a sick person to health is a duty of the State and the sick person, prior to any other consideration. The assumption made here is in accord with the definition of the objects of medical service as proposed in the Draft Interim Report of the Medical Planning Commission of the British Medical Association:

"(a) to provide a system of medical service directed towards the achievement of positive health, of the prevention of disease, and the relief of sickness;

"(b) to render available to every individual all necessary medical services, both general and specialist, and both domiciliary and institutional."

*Para. 428 (page 159):* "Most of the problems of organization of such a service fall outside the scope of the report. It is not necessary to express an opinion on such questions as free choice of doctor, group or individual practice, or the place of voluntary and public hospitals respectively in a national scheme. It is not necessary to express an opinion on the terms of

service and remuneration of doctors of various kinds, of dentists and of nurses, except in so far as these terms may affect the possibility of diminishing and controlling sickness, and so may affect the finances of the Social Insurance Fund. Once it is accepted that the administration of medical treatment shall be lifted out of social insurance to become part of a comprehensive health service, the questions that remain for answer in this report are, in the main, financial. Shall any part of the cost of treatment, and if so, what part, be included in the compulsory insurance contribution? But, though that question is in itself financial, the answer to it may affect the organization of the service and may therefore depend in part upon views as to organization."

*Para. 431 (page 160):* "If a contribution for medical treatment is included in the insurance contribution, contributions will cover not ninety per cent. of the population (the present insured persons and their dependants), as is assumed in the Draft Interim Report issued by the Medical Planning Commission, but one hundred per cent. of the population. This will not, of itself, put an end to private practice. Those who have the desire and the means will be able to pay separately for private treatment, if the medical service is organized to provide that, as they may pay now for private schooling, though the public education system is available for all. But no one will be compelled to pay separately. The possible scope of private general practice will be so restricted that it may not appear worth while to preserve it. If, therefore, it is desired to preserve a substantial scope for private practice and to restrict the right to service without a charge on treatment to persons below a certain income limit, it will not be possible to include a payment for medical service in an insurance contribution which all are required to pay irrespective of income."

*Para. 435 (page 161):* "Dental and ophthalmic treatment and appliances are now overwhelmingly the most popular of the additional treatment benefits under National Health Insurance. That is to say, they are being paid for in part by compulsory contributions and for the rest mainly by a charge when treatment is given. There is a general demand that these services should become statutory benefits available to all under health insurance. There appears to be ground for regarding a development of preservative dental treatment as a measure of major importance for improving the health of the nation. This measure involves, first, a change of popular habit from aversion to visiting the dentist till pain compels into readiness to visit and be inspected periodically; it involves, simultaneously with the creation of these means of a demand for a large dental service, the taking of steps to organize a larger supply of the service. That the insurance title to free dental service should become as universal as that to free medical ser-

vice is not open to serious doubt. The only substantial distinction which it seems right to make is in the supply of appliances. To ensure careful use, it is reasonable that part of the cost of renewals of dentures should be borne by the person using them. This might possibly be extended to the original supply."

No similar emphasis on the equally necessary care for the maintenance of conservative work, by means of oral hygiene, by the patient who has had treatment, is given.

The report itself does not give any concrete suggestion for the form which a comprehensive medical or dental service shall take. The following paragraph suggests the steps to be taken to determine this:

*Para. 437 (page 162):* "This review of some of the problems involved in establishing a comprehensive medical service, makes clear that no final detailed proposals, even as to the financial basis of this service, can be submitted in this report. It suggests the need for a further immediate investigation, in which the finance and the organization of medical services can be considered together, in consultation with the professions concerned and with the public and voluntary organizations which have established hospitals and other institutions. From the standpoint of social security, a health service providing full preventive and curative treatment of every kind to every citizen without exceptions, without remuneration limit and without an economic barrier at any point to delay recourse to it, is the ideal plan. It is proposed accordingly that, in the contributions suggested as part of the Plan for Social Security, there shall be included a payment in virtue of which every citizen will be able to obtain whatever treatment his case requires, at home, or in an institution, medical, dental, or subsidiary, without a treatment charge. It is proposed that the sums derived from these payments shall be transferred to the Department or Departments concerned with the organization of the health service to meet part—it can only be part—of the total cost. But these proposals are provisional only, subject to review, in the light of the further inquiry suggested, in which organization and finance can be dealt with together. The primary interest of the Ministry of Social Security is not in the details of the national health service or in its financial arrangements. It is in finding a health service which will diminish disease by prevention and cure, and will ensure the careful certification needed to control payment of benefit at the rates proposed in this report."

Herein lies a challenge to the profession.

*Para. 461 (page 172):* "Freedom from want cannot be forced on a democracy or given to a democracy. It must be won by them. Winning it

needs courage and faith and a sense of national unity: courage to face facts and difficulties and overcome them; faith in our future and in the ideals of fair play and freedom for which century after century our forefathers were prepared to die; a sense of national unity over-riding the interests of any class or section."

Whatever may be the outcome of the report in the future, the nation undoubtedly owes a debt of gratitude to Sir William Beveridge for his work in producing such a comprehensive and valuable report. Every member of the dental profession should possess a copy.—*The Dental Gazette*, January, 1943.

### BOOK ANNOUNCEMENTS

*The Dental Treatment of Maxillo-Facial Injuries* (Limited Edition): By W. Kelsey Fry, M.C., M.R.C.S., L.R.C.P., L.D.S., R.C.S. (Eng.), Consulting Dental Surgeon to the Royal Air Force, Consulting Dental Surgeon to the Ministry of Health, Dental Surgeon to Guy's Hospital; P. Rae Shepherd, L.D.S., R.C.S. (Eng.), Dental Surgeon, East Grinstead Maxillo-Facial Unit; Alan C. McLeod, D.D.S. (Penn.), B.SC. (Dent.) Toronto, L.D.S., R.C.S. (Eng.), Dental Surgeon, East Grinstead Maxillo-Facial Unit; Gilbert J. Parfitt, M.R.C.S., L.R.C.P., L.D.S., R.C.S. (Eng.), Dental Surgeon, East Grinstead Maxillo-Facial Unit. With Foreword by Professor F. R. Fraser, M.D., F.R.C.P. Director General, Emergency Medical Service. The American Edition, Profusely Illustrated, 268 Pages, Price \$4.50. J. B. Lippincott Company, Philadelphia.

*Accepted Dental Remedies*: (A.D.R.) This is the ninth edition of this little book, the value of which is already known to the dental profession. This issue contains 304 pages including index. It is published by the Council on Dental Therapeutics of the American Dental Association, 222 East Superior Street, Chicago; price \$1.00.

*Applied Anatomy of the Head and Neck*: By Dr. Harry Shapiro, Columbia University, Price \$5.50. A review of this book will ap-

pear in the December issue; J. B. Lippincott Company, Publishers, Philadelphia.

*Dental Index:* The 1939-1941 Volume of the Index has just made its appearance. This includes Dental Literature very generally in the English language for the three-year period, arranged alphabetically under subject headings and by title. It contains also an Author Index in the same order. The book is published by the American Dental Association, 222 E. Superior Street, Chicago, Ill., under the specific direction of the Librarian with Indexers and under the general direction of the Committee on Library and Indexing Service. This is the first product of this Committee and in this alphabetical arrangement.

*Oral Diagnosis:* (Second Edition), By Kurt H. Thoma, D.M.D., Professor of Oral Surgery and Brackett Professor of Oral Pathology, Harvard University; Oral Surgeon and Chief of Dental Service, Massachusetts General Hospital; Oral Surgeon, Brooks Hospital; Dental Surgeon, Dental Department, Consultant in Oral Surgery, Tumor Department, Boston Dispensary and Joseph H. Pratt Diagnostic Hospital; Consulting Oral Surgeon, New England Baptist Hospital; and Consulting Oral Surgeon, Beth Israel Hospital. Second Edition, Revised, 495 pages with 666 illustrations, 63 in colors. Philadelphia and London: W. B. Saunders Company, 1943. Price \$6.75. W. B. Saunders Company, Philadelphia.

*The Rockefeller Foundation Report; A Review for 1942:* This is the regular annual report of the Rockefeller Foundation made by the President, Raymond D. Fosdick. In it are described the various educational and scientific undertakings which are financed wholly or in part by the Foundation. One who is interested in current social trends will be interested in this report. A copy may be had by addressing the Foundation in New York City.

## OUR ADVERTISEMENTS

*A policy intended to safeguard professional interests and to encourage the worthiest industrial endeavor*

The basis and conditions of our policy relating to advertisements are set forth below (*J. Am. Col. Den.*, 2, 199; 1935):

I. Advancement of the material aspects of civilization is largely dependent upon the expanding production and distribution of commodities, and their correlation with individual needs and desires. Successful practice of modern dentistry, on a broad scale, would be impossible without an abundance of the useful products of dental industries. Leading dental manufacturers and dealers have been providing invaluable merchandise for the dental practitioner. The business of supplying dental commodities has been effectually organized and, as an auxiliary to oral health-service, is more than sufficient to tax the greatest ingenuity and all the attention and integrity of each dental producer and distributor.

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## ADVERTISEMENTS

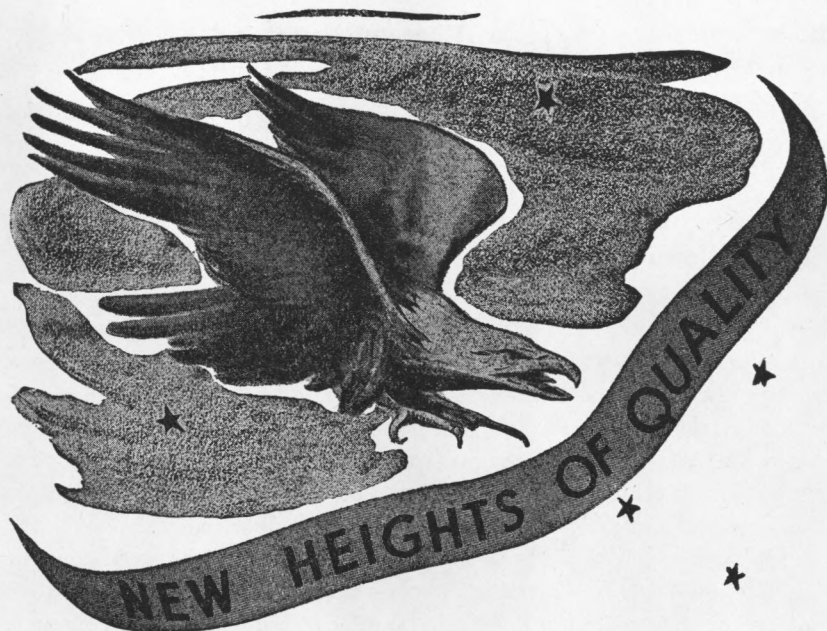
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ADVERTISEMENTS



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**DENTISTRY'S FINEST PARTIAL DENTURE CASTING GOLD**



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### Announcements

*Next Meeting, Board of Regents*: Cincinnati, Oct. 14 and 15, 1943.

Next Convocation to be announced.

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

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