JOURNAL OF THE
AMERICAN COLLEGE
OF
DENTISTS

Vol. 8 . . . DECEMBER, 1941 . . . No. 4

Contents

Corrected Pages 235-238 of the preceding issue ........................................... 235

American College of Dentists:
Houston Convocation, Oct. 26, 1941:

Addresses:
Inaugural: E. G. Meisel, D.D.S., President-elect .... 255

Dental Caries:
Frequency of Occurrence—Hereditary Factors. Peter J. Brekhus, D.D.S. .... 270
Enamel, the Point of Attack. Paul C. Kitchin, M.S., D.D.S .... 275


Professional Control of Dental Journalism. Walter Hyde, D.D.S. .... 288

Editorials:
Houston—1941 .................................................. 296
Combined Undergraduate Curricula in Professional Education—W. J. G ........ 299
The Chief Requisite for a Competent Dentist—G. C. P. .... 301
Dental Schools and Research—T. McB. .... 302
Effect of Filling Materials Upon Dental Pulp—G. C. P. .... 305
The Use of Words ............................................. 306
Endowment Fund: Journal of Dental Research .... 307
Educational Conference, 1942 .... 307

Correspondence and Comment:
Dental Officers of the Army and Navy Not in Control of Dental Affairs .... 308
Correction and Clarification by Dean Miner .... 309
A “New One” in Dental Therapy .... 314
Open Invitation to Observers in Periodontia .... 315

Notes:
Prospective Law Against Interstate Distribution of Mail-order Dentures .... 316
Word-sequence: “Medical and Dental” or “Dental and Medical” .... 316
The Harvard Plan Unfolds .... 317
“Mobilization of Doctors, Dentists” .... 317

New Books .... 319
Supplement .... 320
Index .... 323

Title pages and contents: Volume 8 .... i-v

Published quarterly at 99 South Van Ness Avenue, San Francisco, California
By THE AMERICAN COLLEGE OF DENTISTS
Office of Publication: 350 Post Street, San Francisco, California
Subscription Price: $2.00 per Volume
Entered as Second Class Matter July 15, 1940, at the Post Office at San Francisco under the Act of March 3, 1879
Copyright, 1941, by the American College of Dentists
Made in United States of America

Sections and dates of meetings in College year of 1941-42 (between convocations):—

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 that 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.

JOURNAL OF THE AMERICAN COLLEGE OF DENTISTS
Board of Editors (1941-1942)

Officers of the College and Regents ex-officio
President: E. G. Meisel, Pittsburgh
Vice-President: Harvey J. Burkhart, Rochester (N.Y.)
Treasurer: Harold S. Smith, Chicago
Secretary: Otto W. Brandhorst, St. Louis
Assistant Secretary: William J. Gies, New York

E lective Regents of the College
F. W. Hinds (46), Dallas
WM. Lasby (44), Minneapolis
ALBERT L. M IDGLEY (42), Providence

Associate Editors: GEO. W. WILSON, Milwaukee

Editor: JOHN E. GURLEY, San Francisco
Assistant Editor: GEO. C. Paffenbarger, Washington (D. C.)

Contributing Editors
WALTER J. Pryor (46), Cleveland
WILLIAM J. GIES (45), New York, N. Y.
WENDELL D. Postle (44), Columbus
THOMAS F. McBride (43), Pittsburgh
WILLARD C. FLEMING (42), Oakland (Calif.)

Publisher: John E. Gurley, San Francisco
Please Note

Due to misplacement of textual material within the advertising pages of the September issue of the Journal, pp. 235-38 of that issue are reproduced in the immediate front of this issue, to allow proper binding of the volume.

—Editor.
NOTES

available for military service, it has far greater implications on the future public health of the country, particularly in relation to the opportunities for the replacement of these registrants into civilian pursuits after the emergency is over.”

The Commission’s report, as publicly discussed by the Administrator, included these additional views:

“A comprehensive program for physical rehabilitation of the young men of the nation is important in order to maintain effective man power for industry as well as for military service. It will also have an influence in retarding the development of disabilities of middle age which are responsible for an unemployable group in every community.

“In all states and local areas rehabilitation committees should be created jointly by the Federal Security Agency and the Selective Service System to collaborate with professional groups, local governments and voluntary agencies in the development of local rehabilitation facilities.

“In order to meet the situation realistically, it is recommended that Congress enact legislation to defray the cost. As this is primarily a matter of vital necessity for national defense, the cost should be met directly by Federal defense appropriations to the Federal Security Agency, when needed, utilizing fully its available local medical, dental and hospital facilities. Without Federal legislation of this nature, it can be predicted that little progress in voluntary physical rehabilitation is to be expected.”—[C. Ed. (9).

INVESTIGATION OF BASE-METAL ALLOYS IN GERMANY

In Germany, where precious alloys, like probably nearly everything else, are at a premium, considerable research has been done on alloys as prospective substitutes. An abstract in English by E. Fetz, (Metals and Alloys, 13, 649; 1941, May) of a German investigation of the mechanical properties and corrosion stability of dental alloys based upon high purity aluminum (published in Zeitschrift Metallkunde, 32, 348; 1940, Oct.), shows a development of this type. The aluminum alloy investigated is a common one which has fair resistance to corrosion. The mechanical properties and corrosion resistance of such alloys indicate that they are not substitutes for precious-metal alloys, but in reality only very inferior replacements. Their use indicates the extreme inferiority into which this phase of dental therapeutics in Germany is being reduced.—[C. Ed. (10).]
NEW BOOKS

Dental Caries (Second Edition), now in press, will be ready for distribution early in September. The first edition, issued two years ago, presented summaries of findings and conclusions on the causes and control of caries by 195 authors or groups of authors in twenty-five countries, and contained 189 pages. The second edition will present revisions of many of the summaries in the first edition and also summaries by 42 additional authors or groups of authors in twelve countries. It will contain 280 pages. This volume has been compiled by the Advisory Committee on Research in Dental Caries for the Research Commission of the American Dental Association to promote understanding, clinical observation, and research in this field. Copies, bound in cloth, may be obtained at the headquarters of the American Dental Association, 212 East Superior Street, Chicago, Ill. First edition (1939), $1. Second edition (1941), $2.


Dental Education in the United States: By John T. O’Rourke, B.S., D.D.S., Dean and Professor of Oral Medicine, University of Louisville School of Dentistry; and LeRoy M. S. Miner, D.M.D., M.D., Sc.D., Dr. P.H., Dean and Professor of Clinical Oral Surgery, Harvard Dental School; Professor of Stomatology, Boston University School of Medicine. With a Foreword by Raymond A. Kent, B.A., M.A., Ph.D., LL.D., President, University of Louis-
NEW BOOKS

Dentistry as a Professional Career: A Brochure for the use of Guidance Officers and Prospective Students; Arranged and Published by The Council on Dental Education of the American Dental Association, 212 East Superior Street, Chicago, Ill.

Your Teeth: Their Past, Present and Probable Future, by Peter J. Brekhus, D.D.S., Director of Research, College of Dentistry, University of Minnesota; published by University of Minnesota Press, 1941, price $2.50.

DEATHS

Ralph Bullock Jones, Willimantic, Conn. .................. May 9, 1941
R. Boyd Bogle, Nashville, Tenn. .......................... May 25, 1941
William Hopkinson, Milwaukee, Wis. ...................... July 23, 1941
Charles S. Kramer, Colorado Springs, Colo. ............... July 30, 1941
Harris Reid Conley Wilson, Cleveland, Ohio .............. July 9, 1941
Alex E. Bard, Tucson, Ariz. ............................... August 21, 1941
Harry E. Latcham, Baltimore, Md. ......................... August 20, 1941
H. W. Titus, Eugene, Ore. ................................. July 29, 1941
Jesse D. White, St. Louis, Mo. ............................. September 16, 1941
Another year has passed and still another has taken its toll. We are here today and gone on to “that other land” tomorrow. We live together, work together and play together—we make friends and enjoy pleasant associations. But the time must come when these must be broken and so today we record the names of these, our Fellows, who have heard that “last call” since the convocation in 1940. We shall miss them but their influence will live among us as long as we shall last.

Each of these Fellows has contributed to the usefulness of dentistry and the welfare of the public in many and different ways, but each in turn, as indicated in the “Objects” of the College. It is well for us then at this time to pause for a moment, reflect upon the responsibility imposed upon us as Fellows of the College, and to pay to them our final and lasting respects. It is indeed, with a full sense of their loss, that we submit the following resolution:

Whereas, Almighty God, in His wisdom has seen fit to take these Fellows from us;

Be it Resolved, That we here assembled, humbly bowed, express our deepest sympathy in the loss of these Fellows and comrades; and

Be it Further Resolved, That we record the expression of our sorrow in the archives of the College and send a copy to those who mourn their death.

1Presented at the convocation in Houston, Texas, October 26, 1941.
2The other members of this Committee (1940-1941) are: F. H. Cushman, P. V. McParland, R. H. Volland, and M. L. Ward.
ALEXANDER E. BARD, D.D.S.
Tucson, Ariz.
1880-1941
Fellowship conferred in 1932

Graduated from the Western University of Pennsylvania, 1903. President of the Academy of Dentistry of Pittsburgh in 1919, Mason, a member of the United Presbyterian Church and past member of the Pittsburgh Rotary Club, American Dental Association and Psi Omega Fraternity. He was a member of the faculty of the School of Dentistry, University of Pittsburgh, until 1923, when he moved to Arizona. Here he was influential in initiating research concerning the role of fluorine in mottled enamel.

R. BOYD BOGLE, D.D.S.
Nashville, Tenn.
1875-1941
Fellowship conferred in 1923

Graduated from Northwestern University Dental School in 1895. Professor of Exodontia, Radiography and Mouth Surgery at Vanderbilt School of Dentistry from 1905 until 1926. Dean of the faculty for last seven years of that period. Former president of the Nashville Fifth District Dental Society, Tennessee State Dental Association and the American Dental Association. Member of the National Association of Dental Faculties, American Association of Dental Schools, Nashville Academy of Medicine, the Tennessee State Medical Association and American Medical Association. Honorary member of the Alabama, Mississippi, Arkansas, North Carolina, and South Carolina state dental associations and life member of the Maryland State Dental Association. Member of the Phi Kappa Sigma, Psi Omega and Omicron Kappa Upsilon fraternities.
I. NORMAN BROOME, D.D.S.
1858-1941
Fellowship conferred in 1934
Graduated from the Pennsylvania College of Dental Surgery, 1879. Professor of Dental Anatomy, Histology and Prosthetic technics until 1906, he went to the Medico-Clinurgical College as Dean and Professor of the same subjects. In 1916 he joined the faculty of Temple University Dental School, becoming Dean in 1918, which position he held until his death. He was a member of the American Dental Association and the Psi Omega Fraternity. Dr. Broome was the author, with Philipp Fischelis, M.D., of "Anatomy and Histology of the Mouth and Teeth."

WILLIAM L. DARNALL, CAPT., D.D.S.
Navy Dental Corps, Washington, D. C.
1889-1941
Fellowship conferred in 1933
Graduated from University of Indianapolis Dental School in 1913. Commissioned as a lieutenant in the Navy Dental Corps in August, 1914, successively promoted to Senior Grade Lieutenant and Lieutenant Commander. In 1929 was raised to the rank of Commander and in 1938 he was commissioned Captain. Member of the Delta Sigma Delta fraternity, and American Dental Association.
ROBERT L. DAVIS, D.D.S.
Woonsocket, R. I.
1869-1941
Fellowship conferred in 1938

ALFRED ENLOE, D.D.S.
Atlanta, Ga.
1894-1941
Fellowship conferred in 1938
Graduated from Atlanta College in 1915. Member of Omicron Kappa Upsilon dental fraternity, American Dental Association, Georgia Dental Association and Atlanta Dental Society. Associate Professor of Operative Dentistry and Superintendent of the Dental Clinic, Atlanta-Southern Dental College.
EDWIN L. FARRINGTON, D.D.S.
Lowell, Mass.
1869-1941
Fellowship conferred in 1929
Graduated from the Dental Department, Harvard University, in 1893. Past president Lowell Dental Society; director Northeastern Massachusetts Dental Society. Member American Dental Association.

JAMES H. FULLENWIDER, D.D.S.
Louisville, Ky.
1885-1940
Fellowship conferred in 1929
Graduated University of Louisville, School of Dentistry, 1917. Past president Louisville District Dental Society; secretary and treasurer of the Kentucky State Dental Association; Professor of Dental Economics at the University of Louisville; member of the Delta Sigma Delta and Omicron Kappa Upsilon fraternities, and American Dental Association.
FREDERICK T. GUILD, A.M., Ph.D.
Providence, R. I.
1869-1941
Honorary Fellow
Fellowship conferred in 1937
For more than fifty years associated with Brown University as student, faculty member, and officer of administration. He was a member of Delta Phi and Phi Beta Kappa (scholastic) fraternities. During the critical years of the reorganization of dental education he gave much help in the way of advice and counsel to the Dental Education Council of America.

ALBERT HALLENBERG, D.D.S.
Fargo, N. Dak.
1879-1940
Fellowship conferred in 1934
Graduated University of Pennsylvania School of Dentistry in 1900. Chairman for North Dakota of the International Dental Congress in 1904; chairman for North Dakota of the Preparedness League of American Dentists during the first World War; past vice-president of the American Dental Association; member of the American Academy of Restorative Dentistry; past president of the North Dakota State Dental Association, the Fargo Dental Society and the Southeast District Dental Society.
NECROLOGY

WILLIAM HOPKINSON, D.D.S.
Milwaukee, Wis.
1863-1941
Fellowship conferred in 1924
Graduated Milwaukee Medical College (now Marquette) 1902. Past president Milwaukee County Dental Society; past president of the North Side Dental Society; past president Wisconsin State Dental Society, and past president of the Marquette University Dental Alumni Association. Member, American Dental Association.

RALPH BULLOCK JONES, D.D.S.
Willimantic, Conn.
1901-1941
Fellowship conferred in 1938
CHAS. S. KRAMER, D.D.S.
Colorado Springs, Colo.
1882-1941
Fellowship conferred in 1930
Graduated Northwestern University Dental School, 1901. Past president Colorado State Dental Association; member, American Academy of Periodontology, and American Dental Association.

HARRY E. LATCHAM, D.D.S.
Baltimore, Md.
1879-1941
Fellowship conferred in 1933
Graduated Northwestern University Dental School, 1901. Former editor Iowa Dental Journal. Past president Fort Dodge District Dental Society (component of Iowa State Dental Society); past president Iowa State Dental Society; member, Delta Sigma Delta and Omicron Kappa Upsilon fraternities; member, Fort Dodge District Dental Society, Iowa State Dental Society, Baltimore City Dental Society, Maryland State Dental Association, and American Dental Association. Professor Operative Dentistry, Baltimore College of Dental Surgery, University of Maryland.
JOHN A. MARSHALL, D.D.S., Ph.D.
San Francisco, Calif.
1894-1941
Fellowship conferred in 1922
Graduated College of Dentistry, University of California, in 1916. Member American Association for the Advancement of Science; American Dental Association; Sigma Xi, Epsilon Alpha and Delta Sigma Delta fraternities; Society of Experimental Biology and International Dental Federation; Fellow, American Medical Association, and member, American Dental Association. Dr. Marshall was a member of the Council on Dental Therapeutics, Professor of Biochemistry, University of California, College of Dentistry. He was author of many papers, a text on Dental Caries, and one of the first members of the dental profession to hold a Ph.D. degree.

CLAUDE A. MOORE, D.D.S.
Lexington, Miss.
1882-1941
Fellowship conferred in 1938
Graduated University of Louisville, College of Dentistry, in 1904. Member, Mississippi State Dental Society, Tri-State Dental Society and American Dental Association; past president Mississippi Dental Association.
ALEXANDER H. PATERSON, D.D.S.
Baltimore, Md.
1877-1941
Fellowship conferred in 1925
Graduated University of Maryland Dental School in 1911. Past president Maryland State Dental Association; member of Omicron Kappa Upsilon, Psi Omega fraternities, and American Dental Association.

HARRY W. TITUS, D.D.S.
Eugene, Ore.
1894-1941
Fellowship conferred in 1934
Graduated North Pacific College of Oregon, 1917. Member of Oregon State Dental Association, American Dental Association; past president Willamette Dental Society.
NECROLOGY

JESSE DUNCAN WHITE, D.D.S.
St. Louis, Mo.
1873-1941
Fellowship conferred in 1923
Graduated Washington University Dental School (Missouri Dental College) in 1901. Member Missouri State Dental Association, St. Louis Dental Society, St. Louis Society of Dental Science; past president and life member of the St. Louis Dental Society; past vice-president of the Supreme Chapter, Omicron Kappa Upsilon; member of Xi Psi fraternity and a past president of its National Alumni Association; acting dean of the Washington University School of Dentistry 1932-1933. Member American Dental Association.

HARRIS REID COOLEY WILSON, D.D.S.
Cleveland, Ohio
1881-1941
Fellowship conferred in 1938
Graduated Western Reserve University, 1905. Supervisor of mouth hygiene for the Cleveland Board of Education; organizer of the Cleveland Mouth Hygiene Association, later called the Cleveland Child Health Association; member of the Delta Sigma Delta fraternity; past president Cleveland Dental Society; member of the Northern Ohio Dental Association and the American Dental Association.
The American College of Dentists came into being a little more than twenty years ago. Its mission was established through the vision, courage, and energetic effort of a small group of earnest, sincere American dentists who envisioned the need for constructive leadership in order to stimulate and advance the value and usefulness of dentistry as a health service. At the end of this twenty-year period of existence, and at the conclusion of dentistry’s centennial as a learned profession, the College has grown to be a powerful influence in the service of the profession. The College has accomplished much subsequent to its founding. Since we as professional men and as citizens have been called upon to perform our patriotic duty in the National Defense Program, I believe it to be particularly opportune today to review our accomplishments so that we may be stimulated to greater activity in assisting to prepare dentistry to meet adequately its full responsibility in the interest of health, safety, or of any call that may be made upon us.

The founders and older Fellows of the College, through years of experience in active service, have pioneered in establishing the obligations of fellowship and the possibilities of this organization in the service of dentistry. Critics of our efforts, especially those who do not or will not understand our aims, have tried frequently to ridicule the accomplishments of the College, especially in the estimation of our younger members. Many of us have been content to accept the honor and prestige of fellowship, but, through carelessness, indifference, or thoughtlessness, have not lived up to that honor, through failure to give back to the College and to dentistry a part of that which has made us what we are. Lethargy, if persisted in, will eventually threaten our usefulness and prestige.

From its beginning this organization has anchored its endeavors to the philosophy of practical idealism and has offered and applied

1Delivered at the Convocation of the College, Houston, Texas, Oct. 26, 1941.
unselfish and non-political leadership to the problems of our profession. The College has not been motivated by a spirit of dictatorship; neither does it assume to be a self-appointed group of reformers. Its policy has been to sponsor activities contributory to the progress of dentistry. These have been carried on until their value was recognized. Then, without projecting itself, the responsibility for further development is passed on to the organized profession.

**Dental Journalism**

The College has fostered a philosophy of dental journalism by advancing principles upon which dental journalism should develop. In 1929 the Commission on Dental Journalism inaugurated an extensive study of dental journalism and initiated an educational campaign looking toward a professionally owned and controlled periodical literature. The basic idea of that philosophy is that a profession is weighed and judged to a great extent by its literature; that journals owned, controlled, and supported by commercial interests do not represent the profession in a true sense. It is a fact that neither editorial matter nor scientific contributions to proprietary journals contribute to the establishment of a sound professional journalism. The widespread acceptance of this principle, not only by members of the College but also by the profession at large, is the best evidence of its soundness.

**Socio-Economics**

The social and economic depression beginning in 1927 sparked and set aflame the smouldering pressure of world-wide change. Pressure brought by the government on the health service professions, to find ways and means of providing health service to the medically indigent of our population, created a demand for intensive study of the problem. Among the outstanding achievements of the College has been the study by Simons and Sinai of European systems of delivering health service. This was an epic-making contribution to dentistry and was well worth the thousands of dollars appropriated by the College for the purpose.

Since that period, the College has continued its study of the problem, acting as a fact-finding group, working in the spirit of
research. A report on Dental Health Service, Inc., will be given to you later in this session. You will recognize it as another valuable service to dentistry and the public.

Dental Education

Since its recognized establishment a century ago, dentistry has progressed and prospered as an autonomous profession, along the three lanes of literature, organization, and education. The College has always been a strong champion of the continuation of autonomy in all of these directions. It has sponsored the principle that education in dentistry is the responsibility of the dental profession and should therefore be under its directorship, not independently, but in collaboration with other professions and related agencies.

Through the Committee on Education and its constructive work, the College has outlined and advanced principles of education which have proved sound. This has been manifested by the general acceptance of these principles by dental schools, the American dental profession, medical schools, and university authorities. Conspicuous among those principles are autonomy; high entrance and scholarship standards; collaboration in the teaching of dentistry by medical schools and scholastic equality with medicine; expansion of scientific research; condemnation of commercialism in education; and advocacy of the principle that dental schools must, without exception, become an integral part of universities in order that broad, intellectual advantages may be obtained.

Prosthetic Dental Service

One of the most conspicuous accomplishments of the College has been the preservation of the unity of dentistry as it is now practiced in the United States. The codification of dental laboratories provided by the N.R.A. in 1934 gives evidence of the attempt by the laboratories to establish themselves as a separate industry and to remove the restrictions placed upon them as adjuncts to the dental profession. This revealed the laboratory industry as the most pressing force toward the partition of the profession. Through the Committee on Prosthetic Dental Service, the College disclosed this threat to the profession and offered proposals which have proved to be of mutual help to the welfare of the laboratories as well as to the
profession. Typical of the plan of service of the College, the responsibility for further attention to this problem has been accepted by organized dentistry. It does not mean, however, that our Committee will cease to be active. It will continue the splendid work its members have inaugurated and offer full cooperation impartially in the interests of all concerned.

Hospital Dental Service

Early in its existence, leaders of the College realized that dentistry could not expand to its full possibilities of usefulness without a program of hospital training in examination, diagnosis, and treatment of oral pathological conditions in cooperation with hospital medical service. Progress toward establishing courses of training for the undergraduate in dental schools, and internship for the graduate who intends to practice a specialty, has been somewhat discouraging. However, the College has succeeded in creating an ever-growing interest in this matter. Influences working to this end are becoming more and more evident. This may be pointed to with satisfaction.

Research and Medico-Dental Relations

The College has been steadily drawn to the belief that dentistry could take its place as the health service equivalent of an oral specialty of medicine only through the successful promotion of a program of research and a more favorable medico-dental relation. Because of this conviction the Committee on Dental Research in 1937 projected a program of activity which was intended to arouse a spirit of research, and to attract the interest of the profession. The Committee joined hands in this effort with the International Association for Dental Research by encouraging the young men of our profession to engage in research. Still more basic was the work of the Committee to convince dental and medical educators that a close and cordial relationship between dental and medical students in laboratory and hospital would be a major factor in the promotion of dental research. Obviously the purpose of associating dental and medical students would be to establish an interchange of point of view between them. The achievement of the College in this activity is well manifested by the symposium offered today on dental caries.
During this administrative year, the Officers and Regents have made a particular effort to stimulate the interest of a larger number of Fellows in the several fields of activity in which the College is interested and engaged. We have attempted to awaken increased activity in the standing committees and develop a closer understanding and relationship with the nineteen sections of the College. Sections were encouraged to hold annual conferences in which one of the several projects actively engaging the attention of the College could be discussed. Consultants to standing committees have been appointed from the several sections, to spread the scope of work. Standing committees were reorganized or combined with others in order to eliminate overlapping of duties and functions.

Your attention is directed to the important purpose for which sections came into being. They were created to cooperate and promote locally the duties and functions of the College. This plan was conceived because it was believed that a yearly convocation is not enough to keep the work of the College active and continuous. Without sections our efforts would be occasional and spasmodic. Sections have proved to be a practical means of stimulating interest in the general activities of the College.

A little later this afternoon you will have an opportunity of listening to the individual reports of the several standing committees and the condensed reports of others. I feel confident that you will find much interest in these reports. Through them, together with the report of the Secretary and Regents which you heard this morning, you will be properly apprised of the current accomplishments of the College. We are giving you briefly an account of our stewardship. I have personally appreciated the fine teamwork, cooperation, and sacrifice which committeemen have made to serve the College and dentistry. Their reward will be the satisfaction which follows a work well done.

In closing I wish to express my deep appreciation for the fine cooperation and assistance I have received from the Officers, Regents, and committees during my administrative year. I sincerely hope that our combined efforts will add to the record of the achievements of the College.
Upon assuming the presidency of the College I wish first to express my deep appreciation of the great honor which has been accorded me.

A brief reflection revealed that the little I have done for dentistry merited no special recognition, though, indeed, the thought of recognition had never occurred, nor would it have mattered, hence not in the sense of acquiring an honor or of receiving a reward but rather in the spirit of embracing an opportunity to work for and to be of service to the profession, I am glad to accept this office.

Truly these are perilous times in the world. Each nation, each organization in the nation, each individual, has much at stake.

It has been said that the greatest peril which Americans face today is the danger to their free institutions, those institutions for which our forefathers labored and fought, and which they bequeathed to us as a sacred trust.

What dangers may confront American dentistry today, concurrently with the general disarray? What perils for dentistry may be developing, to burst forth into bloom after the present general tension has abated?

The mind quickly conjures up a score of items which might cause the College some concern, for the appearance of which Fellows could well be on the alert. Many are suggested in the reports of the committees engaged in the study of such problems, and a few will be mentioned here at random:

1. Any menace to the ideals of dentistry.
2. Lowering of standards.
3. Influx of incompetent practitioners.
5. Legislation not in the interest of dentistry and the public.
6. False or misleading publicity detrimental to the public welfare.

Delivered at the Convocation of the College, Houston, Texas, Oct. 26, 1941.
7. Lassitude and continued indifference to the social problems and relationships affecting dentistry.

No group is better organized to study these developments than this College. Its members, mindful of their obligation to promote the ideals of dentistry, should be watchful that no possible menace be left to grow unscanned.

Shall American dentistry continue to be held up as the world’s finest? Since “eternal vigilance is the price of freedom” it seems fitting that, during the year of strife and uncertainty ahead, the College might well adopt the word “vigilance” as the keynote for its activity.

A staggering blow to the prestige of American dentistry has resulted from the compilations of the Selective Service examinations, which disclosed the principal cause for rejection of selectees to be defective teeth. It is, indeed, ironical that such a condition should exist in the land which boasts the finest dentistry in the world.

Probably no single factor could be found as the cause of this condition, but the inescapable fact remains that the responsibility for the situation rests in part, at least, with the dental profession. Since only dentists may practice dentistry, the organized dental profession should be concerned with all of the problems pertaining to the dental field, to the end that the development and existence of such conditions might be known and plans formulated to correct them, chief of which up to this time is the provision of dentistry for a greater percentage of the populace.

While it is true that the spirit of organized dentistry has been generally cooperative in the treatment of social problems in which dentistry was involved, little more than a passive interest in the developing social changes has been maintained, except for scattered events of an acute nature.

Regardless of where the blame for the present condition belongs, the organized profession should promptly go forward with the preparation of a really workable program designed to popularize and to make available the benefits of American dentistry.

In 1934 the speaker presented a paper before the meeting of the Pennsylvania State Dental Society, which contained several recom-
mandations so applicable to the present situation that their reading here seems pertinent:

1. "Dentistry should evaluate the findings of its research workers and come to a conclusion, if possible at this time, as to what factors and conditions are responsible for dental disorders. Research workers should be supported and stimulated to make this possible. The information should be supplied in a definite form to every dentist for his guidance in teaching his patients. Similar information should be provided for lay use, particularly in schools, and health books should be brought up-to-date for the benefit of both teachers and pupils.

2. "Dentistry must have the cooperation of the public, particularly of the organized groups, in promoting the wider utilization of oral health service. Dentistry must first determine what is desired and needed in the way of cooperation from each group in order that intelligent methods will be used to procure it. This implies that a comprehensive plan for handling its job must be developed if any measure of success is to be attained. Dentistry must make such a plan. To wait until insurance companies, or legislators (politicians), make the plans will be fatal.

3. "Dentistry should adopt a different policy of dental practice. Up to the present, dental practice has been almost entirely curative and restorative. Its benefits have been received by about one-third of the people. It is impossible to expand the service to include the other two-thirds because (a) they are unable to pay for the service, (b) there are not enough dentists to care for them. . . . The profession has been slow to visualize . . . (the changing) trends (in dentistry). It is possible that because of our experience with the Emergency Relief program we may more willingly accept the challenge before us to adapt ourselves to the needs of the day, to modify our time-worn policy of restorative practice so as to attack our problem with the most efficient means in sight, a program of prevention.

"Even that program is impossible of application for all of the people, for obvious reasons. However, it can be made effective over a period of time and its application is within the range of possibility if our efforts are confined to children. The care of adults will have to be left to our present mode of private practice and clinics, and to the further ministrations of such relief programs as may be developed.

"The potential results of a carefully planned, well organized, militant program of preventive dentistry for children, carried out by the organized profession, supported by the necessary cooperation from other groups involved, offers the greatest opportunity for dentistry to discharge its duty as a health service, and at the same time to qualify as such."
For many years research has been conducted bearing on the cause and control of dental disease. Research departments have been developed in some dental schools, and the course of study preparatory to the practice of dentistry has been extended and broadened. Dental organizations, ranging from small study clubs to large dental societies, as well as many commercial concerns, have studied the question, and yet there is today too little real interest among practitioners in the cause and prevention of caries, and at the same time there is such diversity of opinion that the teaching of prevention to patients is haphazard.

A unified creed, preached with conviction and enthusiasm by practitioners, would do much to disseminate knowledge of the care of the teeth where it would do the most good. Members of the College should be especially interested in problems of prevention, as the effort to make one's ministrations increasingly unnecessary is the ultimate in professional altruism, a height to which College members are challenged to aspire.

Organized dentistry has devoted considerable study to its social responsibilities, attacking successive problems as they developed rather than as a long-range plan of study.

A survey of dental conditions among children of school age, done by the United States Public Health Service under the auspices of the American Dental Association, was completed. The House of Delegates, at many annual sessions, has devoted considerable time to the discussion of the principles involved in the various modes of practice occasioned or threatened by the shifting social status. The Council on Dental Education has gone ahead with an expanding program for the education of dentists. The National Health Program Committee has been earnestly at work on the problems in their field, the pamphlets “Dentistry and Government” and “Programs for Dental Health” indicating the trends along which their studies have progressed. The Economics Committee of the American Dental Association has just published “A Study of the Dental Needs of Adults in the United States.”

The Bureau of Public Relations of the American Dental Association has an immense yearly output in the form of educational
material which goes to both professional and lay groups. The International Association for Dental Research has made a splendid contribution toward the solution of dental problems. The American Association of Dental Editors has become an effective group which promises well for the future of dental literature. The organizations of the various specialty groups affiliated with the American Dental Association are carrying on excellent programs in their particular fields.

This incomplete review indicates that dentistry has become highly organized, and that serious efforts are now being made to discharge its duty, which is the study, prevention and treatment of dental disease.

Despite the huge organization which has grown up inside the profession, and the numerous activities so well operated, the record shows that sufficient dental care is still not being received by enough of our citizens. Extracting teeth and replacing them with costly substitutes does not constitute sufficient dental care for a nation. Something constructive must be done to stop the frightful loss of teeth, some action must be taken. Talking has brought no satisfactory results to date.

Therefore, the recommendation that a drive to provide proper dental care for the Nation's children is again offered, with the additional suggestion that the profession explore the feasibility of having such care made mandatory by law.

In most communities it is compulsory to provide education for children between the ages of six and sixteen to eighteen years. Likewise, vaccination against smallpox is compulsory, and in many communities other requirements are added, all attached to the compulsory education program. Why not also attach dental care? It is well known that children often attend school involuntarily, disliking the compulsion that exists, solely to provide for their future. It also is not unknown that some parents place little more value on education than do their reluctant children. Still education continues to be regarded as of sufficient importance to the individual and to the state that no thought of repealing the compulsory statutes exists, even though it is a costly program and does not fully eradicate illiteracy.
In a comparable way, children may be expected to lack enthusiasm for a plan which contemplates more frequent sessions with the dentist, and many parents may be expected to scoff at the need for, and to grumble over the cost of, such a program. But dentists would be likely to agree that if children could be provided with regular dental care until they reach the age of sixteen to eighteen years, oral health conditions would be so greatly improved and habits of oral cleanliness so well established that there would gradually come about a tremendous improvement in the dental conditions of adults, even though the eradication of dental caries was not accomplished. **IT IS OUR JOB, AND NOW IS THE PSYCHOLOGICAL TIME.** In many schools a limited amount of care is at present available, so that the way has been partially prepared.

This venture, plus a campaign of education of such magnitude as would overcome the tremendous sales programs of those who cater to America's sweet tooth, probably necessitating government assistance and that of other cooperating agencies, seems to be the most effective program to curb dental disorders.

It is gratifying to reflect that the first study of any value in this country, bearing on the social problems of dentistry, was done by this College. If the studies of Simons and Sinai in 1929 had been followed up by organized dentistry in a more active way as a long-term project, the figures from Selective Service might not have been so startling.

Since 1929 the Committee on Economics of this College has never relaxed its efforts to discover and collect information bearing on the practice of dentistry and the extension of its benefits to the public, including also the protection and the development of practitioners. Much of its material has appeared in print and has been widely used as reference text. The most recent product of this Committee's studies, covering several years of effort, has just been completed at a cost of much personal sacrifice on the part of the chairman and members of the Committee and also involving the outlay of sizable amounts of College funds. It, too, should appear in print at an early date.

It is fitting also to mention the excellent work done through a
long term of years by the Committee on Prosthetic Service, which has done yeoman service practically alone in one of the fields where dentistry has been most vulnerable and where action has been constant and unceasing. The work of this Committee exemplifies the value of vigilance which it practiced, for it has been almost constantly on the firing line.

Several other important projects in which the College is engaged need your especial cooperation. One is Dental Journalism. The attitude of the College on the question of Dental Journalism is well known, in and out of dentistry. The principles enunciated by the first Commission on Journalism still stand true and unshakable. "Let dentistry control its own literature." "No further exploitation of the literature of dentistry for private profit." These precepts still stand.

It is true that dentistry has been slow to accept its responsibility to develop its own literature, but it is also true that it is a long way back to the pronouncement of that first commission, and much, very much, has been accomplished since that time.

Members of the College, this is our battle. We started it. Tremendous progress has been made. Let no member do anything to impede the progress of our work, because it is fundamentally right. There is plenty of room inside organized dentistry for the talents of each of us. If you have articles to contribute there is room in your local publications and in the Journal of the American Dental Association for everything you may have that is worth publication. After all, we help maintain out of our dues the organization journals which we control. Why then should we contribute to outside publications which are operated for private profit?

Another unfinished project is the Endowment Fund for the Journal of Dental Research. You have heard the report of the committee on the status of the fund. This project is well worthy of our support. Let us all make an extra special effort to complete the drive this year. It can be done. Let all help.

Another point at which our vigilance must be maintained is in the field of education. Our members who are directing dental schools and those engaged in teaching students should be particularly alert
to the problems in this field, as they affect the welfare of dentistry, the ideals of the College, and through them the quality of service to humanity.

Additional educational attainments are excellent for the social standing of dentists, and highly desirable in attracting a good degree of culture into our ranks, but every addition of time and expense added to the education of a dentist makes dentistry still more expensive. One might question the inclusion, or perhaps the substitution, of items not really essential in the training of a dentist, or in the broadening of his capacity to observe the biological relationships involved in oral conditions that come within his view. All of his education may be so ordered that his culture grows with his broadening knowledge.

It must not be forgotten that today the best treatment for dental caries consists in the removal of diseased parts and their replacement with artificial substitutes—a procedure largely mechanical, requiring highly developed manual dexterity, an artistic sense, and some engineering skill, as well as the ability to judge the health value of the treatment rendered.

In the training of such practitioners dentistry must continue until that time arrives when the cause of dental caries will have been determined and treatment be based upon a concept determined by that discovery. Dentists need not feel abashed that the cause remains unknown. Not every dentist can hope to become a Miller or a G. V. Black, nor can all dentists expect to be research workers. Research worthy of the name requires specially trained workers who may concentrate deeply on the project at hand, pursuing if necessary any ramifications that develop. Most dentists are unable to do this because on the one hand they have not the special training or facilities necessary and on the other hand they have a public service to perform for which they are specially trained—namely the practice of dentistry. The demands of practice upon a dentist’s time and energy as well as the better remuneration resulting therefrom will likely continue to keep dentists at their special tasks, although observations of value will continue to be made from time to time. But it seems
probable that any major discoveries will occur among the trained specialists in their particular fields of research.

The College has its own program to encourage interest in dental research and to insure a chance for the man with a dream to test its value. Who knows what another Goodyear may make on his kitchen stove, or in some dentist's laboratory?

The research program being conducted by the College is a splendid and very ambitious program for an institution of its means. All honor and credit are heartily rendered to those engaged in projecting this work.

Other efforts to promote dental research are also being made, notably the one to enlist the aid and funds of the Federal Government in an effort to determine the cause of dental caries. Meantime, dentists must carry on as dentists in the practice of good dentistry.

Last year the Regents added a new standing committee to the list of hard-working groups that carry the load of College activities. This is the Committee on Preventive Service, a most timely and appropriate creation, in line with the direction in which dentistry ought to go. This Committee has a very important assignment. There is much exploratory work to be done, and foundations must be built upon which a superstructure of efficient preventive service can be erected. At the same time, preventive service must be popularized and encouraged, not only among the laity where it may be expected to be welcome but also among dentists who must be stimulated to develop a proper attitude toward prevention and to spread the doctrine among patients. Earnest cooperation and assistance should be fully accorded this committee by all Fellows. Let this second century of organized dentistry begin auspiciously with a program of prevention.

It is impossible to contemplate a program of activities for the ensuing year without saying a word about the sober and serious responsibilities placed upon each of us as an individual, and upon all of us as a group by the holocaust which seems to threaten the entire world. No one of us can tell what extraordinary duties may be his lot in the ensuing year, but each should be prepared, ready and willing for his assignment. It is certain the Officers and Regents will be
glad to place any needed facilities of the College at the disposal of the proper authorities during the emergency.

For the especial information of the newly inducted members it is fitting that a few words should be said about the American College of Dentists. The College is a non-political institution. It has no axes to grind or grudges to nurse. It is not in competition with any dental society in the execution of dental policies. Rather does the College seek to supplement and assist unobtrusively and in an unofficial capacity the work of the authorized bodies in dentistry, making as a special task the maintenance and the encouragement of high ideals among dentists. The organization of the College includes the Officers and the Board of Regents, the Board of Censors, and the Standing Committees. Recently there have been established Sections in the larger geographical centers, according to the population of Fellows available. These Sections are valuable adjuncts in the work of the College, spreading its ideals into every portion of the country.

In order to do effective work, organization is necessary. It is well known that a smaller, well-knit group will do more extensive and more effective work than a larger, more unwieldy group. For this reason most of the work of the College is done by its Standing Committees. This procedure by no means precludes the assignment of duties to individuals other than committeemen, nor does it mean that Fellows who are not members of committees do nothing. This condition is amply and beautifully stated in a line of a famous poem: "He also serves who only stands and waits."

It is appropriate to restate here the objectives of the College:
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.
To improve public understanding and appreciation of oral health service.

Toward the attainment of those objectives our energies shall be directed during the ensuing term of office.
A widely circulated news magazine, which prides itself upon accurate and up-to-date reporting, printed in a recent issue, the following paragraph:

"Dean Miner and President Conant of Harvard believe that the nation's biggest medical problem, decaying teeth, could be overcome if students were set to research on the cause of dental disease. At present, they claim, most of the 70,000 practicing dentists are too busy filling, polishing and pulling, to give any heed to research. Nor do they know a great deal about the tooth as an organ of the body."

It is not our purpose at this time to take issue with this magazine or with the educational authorities whose opinions it was attempting to report; still less, to decry any plausible attempt to solve this "biggest medical problem." If the new medico-dental students learn how to prevent dental caries at the same time that their purely medical associates do likewise with the problems of baldness and the common cold, there will be cause for three-fold congratulations. We willingly concede, also, that most dentists are too busy to take on the problems of research as part of their individual professional duty—their powers, like those of most physicians, being directed to other ends. But we must at the same time inform the public that dentistry can contribute the accumulated results of many years of research to the stock-in-trade of these new students.

The charge that our profession as a whole gives no heed to research is a serious matter, for it not only ignores the excellent beginnings we have made in stimulating, aiding and rewarding our
research workers, but also belittles our corporate understanding of
the need to strengthen our position and widen our outlook in a
world which constantly demands new areas of intellectual dominion.
We are so far from being heedless that we shall examine with great
interest both the program of studies which will occupy the five years
of work for the two degrees, and the opportunities for practical
experience offered in the one or two years of internship. We will
earnestly hope that such preparation and experience will produce, in
these young men, a perfect implement for that effective medico-
dental relationship, and that necessary coordination of interests and
services, which far-sighted leaders in both professions have long
desired.

In the meantime, "research," whether in the industries, the schools
or the professions, will not stand still. On every side we hear the
products of research enumerated and described, with emphasis upon
new power, adaptability and precision; old errors are corrected, old
hindrances removed, old problems solved by discovery of new
truth. And what is the process of research? The word literally
means, "surveying intently and exploring on all sides;" that is,
with a concentrated attention which is trained to evaluate all phe-
onomena observed. Research properly is, then, the action of keen and
thorough minds reaching toward the unknown through interpreta-
tion and coordination of ascertainable facts. Human progress de-
pends largely upon such procedures. A professional body, regarded
as an assemblage of practical servants of the public, would be abnor-
mally shortsighted if it did not encourage and depend upon such
progress in its own field. To such lack of vision the dental profession
of America is very far from pleading guilty: but it is also true that
interest in research and its results, indispensable to us as to all other
professional men, should be still more thoroughly aroused.

The most vital test of any profession is summed up in the two
queries: Is it efficient? Is it progressive? It is safe to predict that
the answer to the first will soon be no unless the answer to the sec-
don is yes. A progressive profession is one which strives earnestly,
under its ideal of ceaseless growth, to maintain the highest standard
of excellence in its service, not only by meeting all present demands,
but by anticipating those of the future, and by accepting with enthusiasm the challenge of new truth and increased responsibility. Progress of this sort is analogous to growth in an organism; new material is needed recurrently for growth in the organism, and, so too, new knowledge is needed for progress in a profession. Research is the life line by which that new knowledge is supplied. By persistent endeavor to observe, record and interpret phenomena, the research worker furnishes the only safe and practical means of understanding conditions, ascertaining causes, determining effects, solving problems, and controlling forces. Clearer understanding will inevitably suggest improved ways and means; that is, new growth and more efficient functioning of the professional body. Cut off from the life line of research, with no benefit from illuminating discoveries, no new light on the control or prevention of dental disorders, how could dentistry hope for continued growth in health-service value to humanity?

If this were the whole story, a vote to support research could probably be carried by acclamation in this or any other assemblage of practicing dentists. But the facts which are sought may prove elusive, and a research project which aims at a mathematical Q.E.D. is definitely risking disappointment. A hunting expedition, which may return with the game expected, may bring something different, or it may find nothing at all—though in terms of the last case, research is not wasted, for the ground has been covered, so no one else need make the same attempt. These conditions make research for the solution of specific problems a process of such uncertainty and doubtful result that it is relatively unattractive. Hence, the comparatively small number of earnest, well-prepared workers deserve to be the more highly valued by those who can appreciate that for which they stand. Their labors might be called the heart-beat of a profession—seldom seen, not always felt, but ultimately essential to the effectual functioning of brain and hand in the illimitable reach of practical performance. To our altruistic workers in dental research, our gratitude is too seldom expressed. In their own citadels of mind and spirit, opportunity itself supplies both stimulus and reward; exalted moments of eager striving and anticipation;
mystery that beckons and eludes; failures and eliminations that make success seem ever nearer; braver hopes and stronger yearnings that still lead on toward the far outposts of the Unknown. To them our profession constantly owes vitality, illumination and enrichment, freely given. But to the workers who need our help and encouragement, we should, in justice, furnish a substantial measure of economic support, material supplies, and recognition for distinguished achievement. These are the logical means of rewarding them, and to these measures the American College of Dentists has been committed for several years.

I will append, in abbreviated form, a symposium of opinions from members of the Committee on Dental Research, in which are rehearsed some of the benefits accruing to the profession from the support of dental research:

(1) The College and its ideals of efficiency and altruism are better known and understood by the public when, for example, a large grant is made for determining the effect of abrasives in dentifrices.

(2) Professional research, thus publicly supported, helps to make the two health professions, dentistry and medicine, more conscious of each other's work and more willing to act in cooperation.

(3) Publication of the results of research, some of which would not otherwise have been carried on, disseminates knowledge throughout the profession, not only helping to keep the members up-to-date in the understanding of disease, but also emphasizing the fact that additional information is constantly in demand.

(4) Dental schools are encouraged to provide opportunities and personnel for research, not simply for purposes of discovery, but for the very appreciable effect upon standards of teaching and the professional outlook of dentists-in-the-making.

(5) To seek out and enlist for service a man who is both well-equipped for research, and sincerely interested in the unsolved problems of dentistry, is to secure the cooperation of one who notably exemplifies professional scholarship, aspiration and efficiency.

(6) Research funds for individual projects, and research fellowships for the well-qualified and the ambitious, tend to insure a steadily improving professional leadership.
(7) The College is awakening a wider and deeper interest in research on the part of all members of the dental profession; is impressing upon them the fact that they need it, must support it, appreciate it, and make use of its results, for the progressive advancement of human welfare; and is clearly suggesting that they should examine all practices and proposals, both old and new, by the rigorous methods employed in scientific research.

(8) The William John Gies Award, giving eminent recognition to significant research contributions, carries great weight with the profession as a whole, by its forceful emphasis upon the value of certain worthy ideals and achievements.

These sound and valuable results are only a prophecy of the golden dawn that will illumine our horizon when all the rank and file of dentistry come to the vital realization that truth is the everbeckoning goal to which we aspire. If we know ourselves aright, we know that love of truth animates the very heart of dentistry, and has been from the first its guiding and inspiring power. Truth is unalterable. We cannot compromise with it, or carve it, at will, to fit our needs and expectations; but, once found, it is permanent, sure, unfailing—and so, beyond all price. It is all around us, veiled sometimes in the commonest things that we see and touch—waiting till patient research, by trained and expectant study and observation, shall lift the veil.

For the sake of dentistry’s “tomorrow,” with its urgent needs, its ever-widening horizons, its duties that cannot yet be foreseen, the American College of Dentists presents an irresistible appeal that the rank and file of the dental profession cooperate with the full power of their active support in the promotion of dental research.
The outline of this symposium on dental caries suggests that the discussion is to be based on the material presented in the second edition of "Dental Caries" recently published by the American Dental Association. I am assuming that all of us have read that very worthwhile book, or will shortly read it, and therefore I do not intend to present in detail any of the material included in it. In fact, I am taking the liberty of not adhering strictly to the topic assigned to me in this discussion, namely, the Frequency of Occurrence of, and Hereditary Factors in, Dental Caries.

The new book to which I have just referred indicates that we are no nearer the solution of the basic cause of caries than we were fifteen or twenty years ago. Recent findings indicate that many factors probably contribute to the cause. Among these factors, heredity may be included, but at the present time there is no justification for making any definite statements as to the part it may play. I have talked over this question with our geneticists at the University of Minnesota, and they agree that the problem of heredity as affecting human teeth has not yet been approached from a scientific basis. Anything that could be said on the subject at present, therefore, would be opinion rather than fact.

Quite the opposite can be said of the frequency of dental caries. On that phase of the subject enough surveys have been conducted and enough statistics gathered to provide material for several hours' discussion. Yet the published findings on the frequency of dental caries can all be summed up in a sentence: this disease affects almost 100 per cent of civilized mankind.

To this statement might be added the equally well established fact that dental caries is primarily a children's disease and that much
of the present lamentable condition of adults' teeth had its incipiency in dental neglect during childhood.

Let me give you a few figures that are so startling they can scarcely be said to belong in the realm of "dull" statistics. There are in all probability more than 30 million children in the United States with an average of twelve teeth affected by caries. Millions of these teeth are lost annually in these young patients due to lack of dental care. The average of twelve teeth attacked by caries in this group is a fairly conservative estimate, based on studies in various parts of the country. I need not burden you with details of any of these studies. One example will suffice to show the magnitude of this problem. Taking a representative group of Minnesota youngsters between the ages of five and twenty years, we found that the average boy or girl had 6.09 cavities requiring filling.

These children were not horrible examples of the results of neglected decay. They lived in Minnesota, where the average person probably has as good dental care as he could get in any part of the country. And these children had had dental care. The cavities present in more than six teeth in the average child were there in spite of the fact that the children had all had considerable dental work done. Multiplying this figure (6.09 unfilled cavities per child) by 750,000—the approximate number of children in Minnesota between five and twenty years of age—we obtained a probable total of more than four and a half million untreated cavities.

That was in 1930, and dental conditions have apparently not improved since that time. In extensive surveys of thousands of students entering the University of Minnesota in 1929 and in 1939, respectively, it was found that the average student in the 1939 group had 1.13 more teeth affected by caries than the average student in the 1929 group. Observers in various sections of the country—including Dr. John Oppie McCall, who is here today and will doubtless corroborate these statements—caries is more prevalent among our young people today than it was ten or twenty years ago, despite the intensive education in matters of diet, and hygiene, and dental care that has been given the public in the meantime.

At present this increase in dental disease constitutes part of a grave
national problem—a condition that necessitates the rejection of one in every twelve men drafted into the army. These men are young—all under thirty. Yet they are already dental wrecks. We know that army dental standards are far from stringent; they are, in fact, extremely low. If present dental requirements were raised so as to put them on a par with other health requirements, we should have very few soldiers. The draftee with artificial teeth may be accepted. The draftee with artificial limbs stands no chance. If, on the other hand, other health standards were lowered to the level of dental standards, we should have an army consisting in large part of patched-up cripples.

Army dental examiners, and we who have read their reports, have been startled and shocked by the dental conditions found among drafted men. The army's reaction and our own has been to demand the inauguration of what we call rehabilitative dentistry. The dental profession will do what it can—it is doing what it can—in the way of rehabilitating men whose dental condition can still be remedied. This rehabilitative program, however, is for one thing extremely costly, and for another, as we well know, the end result is always a makeshift. How much better it would have been if the children of ten or fifteen or twenty years ago had received the benefits of preventive dentistry!

Of course, "preventive dentistry" is something of a misnomer. We hope some day to have at our disposal the means of preventing dental caries, but at present the best we can do is to protect patients against the more serious effects of this disease. If protective dentistry, as I prefer to call it, were put into universal practice at once, in another generation 90 per cent of rehabilitative dentistry would be quite uncalled for.

I need not enlarge upon what I mean by protective dentistry. We all know that in most cases the early filling of cavities will protect the affected teeth from further deterioration and preserve their usefulness. Our present problem is not to ascertain in great detail the number of children who need such protection. Enough time and money have already been devoted to extensive surveys of dental conditions among both children and adults to convince us that prac-
DENTAL CARIES: FREQUENCY OF OCCURRENCE

tically everyone needs dental services at some time. Nor is our problem primarily one of education. Let us by all means educate the public as to the need for dental care. But of what use is it to lecture a starving pauper on the nourishing qualities of food? A large section of the public, particularly that very important section which constitutes our grade-school population, have been or are being taught the need for dental care. Our problem now is to devise some plan through which protective dentistry may be made available to this generation of children. We save teeth by fillings—not by slogans.

We are now in the throes of a national emergency. We speak in terms of guns and tanks and planes and ships for national defense, to the tune of untold billions. This situation is exciting, but—we devoutly hope—temporary. When the present emergency is over we shall be facing another—the emergency of readjustment. That will be less exciting but fully as important.

Undoubtedly part of the readjustment program will consist of greatly enlarged provisions for health service to the public. The dental profession should be prepared to contribute its share to the program. I do not say that we should go before the profession with a request that they undertake the gratuitous filling of millions of teeth. I should like to suggest, however, that the group assembled here today appoint a committee to consider this whole problem in all of its ramifications—to collect data, estimate needs and the cost of meeting those needs, and devise some workable plan for the future that will provide necessary dental services for those who cannot afford to pay for them.

Let me point out emphatically that whatever plan is finally decided upon, it need not and should not take away one penny of any private dentist's income. The majority of the American people cannot afford the dental care which they urgently need, and it is for that majority that we require a practical system of free or low-cost dental service, to be financed in a way that will be acceptable to the profession as a whole. It is not for me at this time to suggest the details of such a plan.

When a great disaster occurs in any section of our country, when
large numbers of men, women, and children suddenly become homeless and hungry and in need of medical care because of some unforeseen freak of nature, we do not wait for the exact figures on the number of sufferers before we send aid to them. We face a similar situation in regard to present dental needs. We know that the need is practically universal—that almost all children and also a great many adults need dental care. Our problem, then, is not a problem of relative percentages, of different attack rates, of geographical or age and sex variations in caries occurrence. It is the problem of devising practical means of meeting a situation the nature of which we already know very well. In any problem of such magnitude, the dental profession must have leadership and guidance. Where can it look for such leadership and guidance if not to the American College of Dentists?

Today we meet challenges wherever we turn. The acknowledged leaders of a great and honorable profession must face the challenge of a great and increasing need—the need for providing adequate dental care for all our people. If we can manage to do that during the next few years, we may hope that a couple of decades hence a discussion of the frequency of dental caries can be summed up in the statement that, while the attack rate is probably as great as ever, practically no teeth are lost through advanced caries, because everyone has regular dental care and all cavities are filled as soon as they are discovered.
In the midst of uncertainty concerning many aspects of dental caries, it is safe to state that the point of attack is the surface of the enamel. Therefore, a consideration of this first line of defense is in order. The time allotment demands brevity consistent with some degree of coordination, and the honor of being invited to give a summary of our present knowledge requires a sincere attempt to be impartial in a controversial field.

The enamel is formed by a specialized and differentiated epithelial structure, the enamel organ. In deciduous teeth, the final phase of development, calcification, starts before birth (four-six months in utero) and is completed at some time during the first postnatal year. In the permanent teeth practically all enamel calcification takes place after birth and may be going on at some location up to the sixteenth year. Nutrition in relation to tooth development must be considered in the light of these chronological findings.

The actual development is the secretion from ameloblasts, of an appositional material, first organic in nature and subsequently almost completely inorganic. finished enamel is about 3 per cent organic and 97 per cent inorganic. Each secreting cell is responsible for a series of superimposed globular bodies reaching from the dento-enamel junction to the enamel surface and separated from its adjacent globule series by a surrounding membrane. This membrane is elaborated from a network which engages the enamel end of each ameloblast and is known as the terminal bar apparatus.

Inorganic salts, in solution, are present in all parts of the enamel organ, and in its elaborated matrix. The crystallization process, through which almost all of this organic matrix will be transformed into the densest and hardest tissue in the body, is initiated on the periphery, apparently that part of it nearest the dentin, of each stack of globules and progresses toward the center. There is evidence to

\[\text{Read at the Convocation of the College, Houston, Texas, Oct. 26, 1941: A Contribution to a Symposium on Dental Caries.}\]
indicate that crystallization does not follow the growth pattern of the organic matrix, but rather takes place over considerable areas as indicated above and is therefore not an individual rod phenomenon. Recent findings claim that it takes place first in the tips of the enamel cusps. Present information indicates that the units of crystallization are submicroscopic hexagonal crystals of the apatite group whose long axes lie almost parallel to the long axis of the enamel rod. Crystallization is not uniform in density throughout the enamel, though a greater uniformity seems characteristic of older teeth.

There is no evidence to indicate that the inorganic constituents of enamel, once in place, can be removed by physiologic processes. This statement can likewise be made of the dentin. Thus, these calcified tissues cannot be considered a part of the body reservoir of inorganic salts. For this reason, enamel and dentin furnish a lasting growth record of the tooth, largely through the evidence they may present of deviations from the normal process of matrix formation or of calcification, or both.

The superficially apparent imperfect formation of enamel, termed enamel hypoplasia, has not been proved to be a primary factor in dental caries. It is generally accepted to be a factor subsequent to the initiation of caries. The same may be said of areas of lesser calcification in the enamel. The latter do permit a more rapid spread of the caries process.

The mature enamel is defined as “the hard translucent tissue covering the anatomical crown.” Its thickness varies from a sharp edge at the enamel cementum junction to as much as 2.6 millimeters at the cusps of the molar teeth. It serves as a protection to the dentin and its extreme hardness slows the wearing away of the teeth. Enamel is made up of individual rods, each of which reaches from the dento-enamel junction to the enamel surface. These rods are typically straight in lateral crown areas and much intertwined in cuspal areas. Each rod is enclosed in a surrounding material of somewhat lesser degree of calcification, called the sheath. Each rod and sheath unit is bound to its surrounding units by cementing substance. Under conditions of simultaneous and uniform peripheral crystallization these units would be hexagonal in cross section. Ac-
DENTAL CARIES: ENAMEL, THE POINT OF ATTACK

Ultimately, however, probably because of initial unilateral crystallization, they may be semi-lunar. The number of enamel rods, each with a diameter of 4 to 6 twenty-five thousandths of an inch, in an enamel cap, has been estimated to be about 5 millions for incisors and 12 millions for molars.

Well calcified mature enamel has an index of refraction of 1.64 and exhibits the physical phenomenon of birefringence in relatively low degree (.004). Incompletely crystallized young enamel and mature tissue undergoing the initial phase of decalcification is more highly birefringent (.006).

The outer surface of the enamel rods is immediately covered by a very thin layer of usually calcified substance called the primary enamel cuticle. Superimposed on this may be a relatively much thicker and often keratinized layer known as the secondary enamel cuticle. This last has been claimed to have a useful function in protecting enamel, as well as exposed cervical dentin and cementum, from caries.

Other structural characteristics of enamel are (1) enamel tufts, poorly calcified rod elements starting at the dento-enamel junction and projecting as far as one-third the distance to the enamel surface; (2) enamel lamellae, poorly calcified material, one type of which is strictly of enamel origin and may extend from the enamel surface to the dento-enamel junction, and the second is of surrounding extraneous origin which has grown into an enamel defect during the developmental period. The latter may extend from the enamel surface completely through and into the underlying dentin; (3) enamel spindles, which are really extensions of dentinal tubules into the enamel; and (4) the striae of Retzius, the superficial ends of some of which appear on the enamel surface as minute grooves, encircling the enamel. The striae of Retzius are commonly looked upon as primarily calcification phenomena, but have been recently pointed out as possibly being periodic growth areas of the organic matrix and only secondarily as calcification variations.

The four above listed characteristic enamel structures are all areas of lesser calcification. They present less alkaline material to neu-
tralize the acid activity of enamel caries, and allow a more rapid spread of the condition.

It is generally believed that, especially in case of the enamel tufts, the more poorly calcified structures of enamel are more prevalent in the teeth of younger individuals and tend to be reduced with advancing age. This ties in with the clinical observation of more rapid caries in young patients.

While investigators agree fairly well on the process of development and the structure of enamel, there is no unanimity on the causes of its immunity or susceptibility to caries. A perusal of the new second edition of "Dental Caries," compiled and summarized by Dr. W. J. Gies and published by the American Dental Association, will attest to this.

A preponderance of opinion holds this relationship to be a passive one on the part of enamel. In other words, the enamel surface is believed to be acted upon by the external agencies producing its disintegration without exhibiting any reaction characteristic of disease resistance in a living tissue. This, it is claimed, is only what might be expected in a structure which is produced through a secretory appositional process from formative cells, which cells no longer exist when enamel is completed. In addition to this, the appositional material undergoes a structural transformation which makes it the densest and hardest of human tissues.

The generally conceded presence of anatomically characteristic and less calcified structures in enamel, namely tufts, lamellae, spindles and striae of Retzius and a residual organic framework, insignificant as to weight percentage but more striking on the basis of volume, furnish the physical basis for claims of a possible circulatory system. Proponents of the minority group, claiming circulation in, and consequent vitality of, enamel, point to the clinical fact of a caries attack on the proximal surface of one tooth and the freedom from such on the adjacent surface of a neighboring tooth. Their opponents cite the equally valid clinical condition of the escaping tooth often being pulpless and hence with no circulation possibilities. Proponents counter with the claim that pulp removal causes
initially increased and later, and permanent, decreased permeability of enamel—hence resistance to caries.

Since the available evidence has resulted in a majority opinion that human enamel cannot be considered as a vital tissue, a present trend is to examine it more critically from the standpoint of any possibilities of chemical make-up which might account for variations in caries susceptibility.

Early in the investigations of caries the use of chemical analyses of apparently caries susceptible and caries immune enamel was employed. These attempts, handicapped by less accurate techniques than are now available, and by possible admixtures of dentin, showed no significant chemical variations. Attention was directed almost entirely to the chief enamel components, Ca, P and the carbonates.

More recently, data have been submitted which substantiate the early work on Ca, P and carbonates, but indicate variations in some of the lesser components. These findings, while not conclusive, have indicated the desirability of more investigation into the role which some of the inorganic constituents of enamel may play in resistance to caries. The most interesting of these is fluorine, which makes up less than 1.0 per cent of enamel's inorganic substance. As far back as 1892 there was a theory that caries in England might be due to lack of F in the diet, and in 1923 the idea was advanced that sound teeth contained more fluorine than carious ones. The observations of early workers in mottled enamel led them first to the claim that mottled enamel was no more subject to caries than was the normal tissue and later that it was even less so. At present the belief that fluorine in the diet or water supply used reduces the incidence of caries has much support among experimental workers in this field. Recent chemical analyses have indicated the probability of its presence in significantly greater amounts in non-carious enamel. Some investigations have indicated that there may be a possibility of increasing the fluorine content of enamel during development and also possibilities of combining it with the superficial parts of the enamel subsequent to development.

While it is not advisable to go into all the findings on this subject, it is interesting to note that the relationship of fluorine to dental
conditions is important enough that the Subsection on Dentistry of
the A.A.A.S. plans to devote its program at the Dallas meeting to a
symposium on that subject. Its Columbus program (1939) had five
of eighteen papers devoted to the same topic.

If the presence of additional fluorine, magnesium, or any other
element, or combinations of such in enamel can be conclusively
related to reduced caries susceptibility and if some safe and generally
applicable method can be devised for putting a desirable material
there, such a situation could offer a definite widespread public health
measure of caries reduction. It should be emphasized that further
careful investigation and well-checked findings are an absolutely
necessary preliminary to any clinical procedures concerned with such
a dangerous agent as fluorine. Workers in this field wish to be, and
must be allowed to be, absolutely sure of their ground before they
can at the same time condemn fluorides as the cause of mottled
enamel and recommend them as a means of decreasing dental caries.

The causal relation between excessive amounts of fluorine com-
pounds in drinking water supplies during enamel development and
the enamel condition known locally as “brown spots” and more gen-
erally as mottled enamel, has been definitely demonstrated and
generally accepted. In some areas when this condition is endemic,
the original sources of water supply have been abandoned and
acceptable new ones secured, or the fluoride-bearing water is being
treated to reduce the fluoride content to safe levels.

In the light of this proven relation to mottled enamel and the
present evidence on the fluorine caries relation, it might be put briefly
that excessive fluorides are definitely detrimental to enamel but that
there may be optimal conditions, yet to be determined, which may
reduce dental caries and yet not produce undesirable effects.

Another aspect of the relationship of enamel to dental caries is
the possibility of a secondary deposition from the saliva or from a
superficial application of calcium and phosphorus salts to the slightly
disintegrated enamel area. A number of Europeans and some of our
own investigators claim that enamel can be “remineralized” by such
means. Others deny the occurrence of such a phenomenon. As in all
controversial situations we cannot put ourselves in the position of
denying the possibilities, but the present evidence does not warrant other than a mention of it.

It seems, in looking back over what has been said about enamel, that the intrinsic local factors operating in that tissue in normal and carious teeth have been dealt with, with the possible exception of the pits and fissures. Statistical evidence shows that these are the pre-eminent sites of enamel caries. According to most investigators they are areas in which the usual forces of growth and development normally produce hypoplastic conditions. Admitting this, but emphasizing their universal occurrence in both carious and non-carious teeth, another viewpoint adds that they should not be considered defects simply because of the high incidence of caries found in these places.

If we are to include in this discussion the whole field of intrinsic local factors operating in normal and carious teeth, it is necessary to include dentin. The dentin originates from the connective tissue cells of the dental papilla. Both the odontoblasts and deeper underlying cells are believed to enter into this process. The former are conceded to be responsible directly for tubular extensions which extend from them and occupy tubular spaces in the ground substance. This ground substance is fibrous and the product of cells underlying the odontoblast layer. These fibers are generally at right angles to the spaces occupied by the extensions from the odontoblasts. The calcification, which here closely follows the layer-like deposition of organic material, starts at separate centers and results in the ensheathing of the individual fibers with crystals of the apatite group, crystal long axis generally parallel to the fiber. Failure of these separate centers to enlarge sufficiently to fuse results in interglobular dentin areas. The final product is close to bone in its chemical make-up.

The presence of a lymph-like fluid in the lumen of the tubular odontoblast extension and in the tubular space around it, is claimed even to the extent of its direction of movement in the above places. The filling in of these open passages with age by calcium deposits is generally recognized and proof has been advanced that this process may oppose the progress of caries in the dentin. This sclerosis may
be accompanied by pulpal activity producing secondary dentin on the wall of the pulp chamber, quite definitely on the inner ends of the caries involved tubules, and also on other areas of the pulp periphery.

Generally speaking, the claim of dentin reaction to caries seems to rest on better evidence, both of structural possibilities and resulting visual conditions, than is the case with the enamel. As with the enamel, the progress of caries is more rapid in lesser calcified areas, namely in open tubules and in interglobular dentin.

In concluding these remarks, it seems necessary to admit that, while in possession of a knowledge of certain actually demonstrable conditions of origin and growth, the presence of certain structures in the mature tissue and the general physical and chemical characteristics of these tissues, we are not in a position to state as facts definite and non-contestable relationships of this knowledge with the initiation of the caries process. However, we do somewhat better in relationship to the progress of caries. Unfortunately, we deal with tissues, presenting considerable difficulty of study, in their relation to a disease of undetermined etiology.
AMERICAN COLLEGE OF DENTISTS

HOUSTON CONVOCATION: OCTOBER 26, 1941

ABSTRACT OF MINUTES: CONVOCATION AND REGENTS

O. W. BRANDHORST, Secretary
St. Louis, Missouri

I. BOARD OF REGENTS: OCTOBER 23, 24 AND 28

Oct. 23 (11:30 a. m.-12:30 p. m.); first session: present—eight. (1) Minutes of session in Chicago, Feb. 16, 1941, read and approved. Reports of officers: Secretary (2) on minutes, (3) on ad interim activities, (4) on state of College; (5) President; (6) Vice-President; (7) President-elect; (8) Treasurer—all accepted.

Oct. 23 (2:00-6:00 p. m.); second session: present—eleven. Reports of officers, continued: (9) Assistant Secretary; (10) Editor; reports accepted. (11) Reports of Regents; reports accepted. (12) Question of publishing poem on St. Apollonia; referred to History Committee and Editor. Reports of committees: (13) Socio-Economics; report received; committee and assistants commended; Chairman asked to meet with Publicity Committee and Editor. (14) Committee on Wm. J. Gies Endowment Fund for Journal of Dental Research; report received. (15) Committee on Budget; report received. (16) Publicity Committee; report received.

Oct. 23 (8:00-10:45 p. m.); third session: present—nine. (17) Consideration of suggestions made at joint meeting of Regents and Representatives at Chicago, February 17, 1941. (18) Ceremonial procedure: action—to request wearing of caps and gowns during convocation only. (19) Nomination and election to fellowship; action—appointment of committee of Regents to study membership problem and consider possible additional requirements and procedures; committee to be augmented by one member selected by each section and appointments from other areas where this is deemed desirable. (20) Voted the College sponsor a conference on Dental Health to be staged sometime during Chicago Mid-Winter meeting. (21) Voted to appoint committee to study ideals, hopes and aspirations of dentistry and suggest ways and means to translate them into action.

283
Oct. 24 (9:00 a.m.-12 m.); fourth session: present—ten. (22) Socio-Economics Committee report, (13); further consideration. (23) Baltimore proceedings; voted to purchase 100 copies for distribution to dental libraries. (24) A.C.D. Bulletin; voted to publish multigraphed bulletin to be mailed to members during year.

Oct. 24 (2:00-5:00 p.m.); fifth session; joint session with representatives of sections to hear reports of committees: present—Regents, 8; representatives, 9. Reports of committees: each chairman was asked to consider the following questions in closing his report: (a) Is your committee functioning satisfactorily?; (b) Do you think the consultant idea worth while?; (c) How are you using it?; (d) What specific plans has your committee for next year's activities?; (e) How can more interest be created among our members in your committee's activities?; (f) What are some of the specific problems, if any, facing your committee which tend to retard activity? (25) Relations; (26) Preventive Service; (27) Prosthetic Dental Service; (28) Socio-Economics (13), (22); (29) Certification of Specialists; (30) Hospital Dental Service; (31) History; (32) Journalism; (33) Dental Research; reports received. (34) Endowment; report adopted as initial working plan. (35) Open discussion (specific references to journalism, annual meeting and election to fellowship).

Oct. 28 (9:00 a.m.-12 m.); sixth session: first session of new Board; present—ten. (36) Report of Committee on Dental Research on Grants-in-Aid and Fellowships (33); report received. (37) J.E. Gurley re-elected Editor; (38) W.J. Gies re-appointed Assistant Secretary. (39) Following classification of dental publications approved: A) Periodicals controlled and owned by dental societies; B) Periodicals controlled but privately owned; C) Periodicals privately controlled (a) By owners exclusively engaged in the business of publication; (b) By owners not exclusively engaged in the business of publication; D) Periodicals that are distributed free of charge to American dentists generally. (40) Committee appointments and selection of chairmen approved.

II. CONVOCATION: OCTOBER 26, 1941

Morning (10:00 a.m.-12:30 p.m.); first session: President Wil-
son presiding. (41) Minutes of Cleveland Convocation read and approved. (42) Report of Board of Regents presented by Secretary as follows:

"The Board of Regents met on Thursday and Friday, October 23 and 24, to care for the routine business of the College and to give attention to such other matters as might properly be brought before it.

"On Friday afternoon a joint meeting of the Regents with representatives of the Sections was held to hear and consider the reports of the committees. The deliberations indicated that many of the Sections were not aware of their opportunity to promote the work of the College in their respective communities. The Regents urged all Sections to join in the activities of the College through local study of projects and through cooperation with committees.

"Believing that many responsibilities and opportunities are ahead for our profession, a special committee has been appointed to study the ideals, aspirations and hopes of and for dentistry and recommend ways and means of attaining them; in short, to visualize 'Dentistry in Action.'

"Much thought was given to the question of credentials for fellowship. A special committee has been authorized to review this matter and suggest improvements. Sections will soon be asked to designate one of their members to take part in these deliberations.

"Believing that the time was at hand when dentistry might well review its progress and make plans to meet the tasks ahead, a conference on Dental Health is being arranged to be held in Chicago at the time of the Mid-Winter Clinic meeting in February, 1942. It is planned to invite to this conference all organizations and agencies interested in dental health. It is hoped that out of this effort may come a better understanding of the dental health problems and that suggestions may be made for ways and means for bringing to the American people an even greater health service.

"Your Board asks for your continued cooperation in all those things that will enhance the service to the public."

(43) Report of Treasurer (8); report received. (44) General theme of program, "Dentistry's New Horizon." The following program was presented: (45) "Research: An Indispensable Aid to Professional Progress," A. L. Midgley, Chairman, Committee on Dental Research. Symposium on Dental Caries: (46) Caries, (a) Frequency of Occurrence; (b) Hereditary Factors, Peter J. Brekhus. (47) The Tooth, (a) Enamel—The Point of Attack; (b) Intrinsic Local Factors Operating in Normal and Carious Teeth, Paul

Luncheon (12:30-1:45 p. m.); second session: Fred W. Hinds, Chairman of Texas Section, presiding. Attendance, 180. (53) Address, “How Texas Got That Way,” Mr. Herbert Fletcher, President, Anson Jones Press, Houston, Tex.

Afternoon (2:30-5:20 p. m.); third session: President Wilson in chair. (54) Procession of Officers, Regents and new Fellows. (55) Fellowship conferred upon newly elected members (asterisks indicate election to membership prior to 1941):


(56) The William John Gies Award in Research was conferred upon Dr. Frederick Bogue Noyes, in absentia, by Dr. John E. Gurley, Chairman, Sub-Committee on Awards, Committee on Dental Research. (57) John V. Conzett, Chairman of the Necrology Committee, conducted the Memorial service for the following Fellows who had passed away since the Cleveland meeting:


(58) President's Address, George W. Wilson. (59) Address, “Comparative Rehabilitation and Maintenance Costs of Adequate Dental Care to a Selected Group,” Chas. E. Rudolph, Chairman, Committee on Socio-Economics, (13), (22), (28). Reports of Committees: (60) Dental Prosthetic Service, (27); (61) Endowment Fund for the Journal of Dental Research, (14), (62) Endowment, (34). (63) Nominations for officers presented—President-elect, J. Cannon Black; Vice-President, Harvey J. Burkhart; Secretary, O. W. Brandhorst; Treasurer, Harold S. Smith; Regent (5 yr.), Fred W. Hinds. (64) President asked for nominations from floor; none presented. (65) Nominees for offices presented by Committee (63) unanimously elected.


(Next Convocation: Boston, Mass., August 23, 1942.)
Professional Control of Dental Journalism

WALTER HYDE, D.D.S.

Minneapolis, Minn.

"A profession is the calling or occupation which one professes to understand and follow; specifically, a vocation in which a professed knowledge of some department of science or learning is used by its practical application to the affairs of others, either in advising, guiding, or teaching them, or serving their interests or welfare in the practice of an art founded on it. Formerly theology, law and medicine were specifically known as the professions; but as the applications of science and learning extended to other departments of affairs, other vocations also received the name. The word implies professed attainments in special knowledge as distinguished from mere skill; . . . and an application of such knowledge to uses for others as a vocation; as distinguished from its pursuit for one's own purposes. In professions strictly so called, a preliminary examination as to qualifications is usually demanded by law or usage and a license or other official authority founded thereon required."

One informal test, which may be applied to the claims of any group of workers that their vocation is a profession, is the character of the literature they produce. This literature, in the case of dentistry, may be divided conveniently into two parts: (a) Text books and (b) current writings, mostly essays and reports before active societies. It is the second division that interests us in a discussion of dental journalism, for this material is usually published in our journals soon after it is presented, and, when bound and placed in the library, constitutes the great body of our literature, permanently available for the use of all who may be interested.

The present discussion is directed to the question: Should a dentist be interested in, and concerned about, dental journalism? What I have to say is based on the feeling that he should; and also on an abiding faith that somewhere within even the most indifferent dentist is a spark that desires honor and respect for his chosen profession, and that will often prompt him to action when conditions in dental journalism are brought to his attention.

There has been one serious handicap: Dental journalism was

1Century Dictionary.
nourished at the breast of commercialism for a period so lengthy that there seem to be many who do not realize the import of this situation; or who, because conditions have been made comfortable for them, do not desire the change which, from a professional point of view, seems imperative. In the first century of our history, dental journalism passed through many vicissitudes in an interesting evolution—a kind of ascending spiral. We seem to have come again to the level where the independence and character of our publications—as emphasized by professional control—are influential factors in the thinking of an increasing number of dentists.

The earliest dental journals, such as the *American Journal of Science* (1839), *Dental Register of the West*, *New England Dental Journal*, etc., were truly independent professional journals; but they uniformly encountered many difficulties in publication, including lack of adequate support from the young, poorly organized, profession of dentistry. We need not be too apologetic for early dentistry. We can admit the charges that it was crude; that it was limited to a mechanical outlook; that it was lacking in professional standards. But we may also testify to the fact that in that era there were dentists whose ideals, standards, and abilities compared favorably with those of the best contemporary members of the other and older professions. In those earliest days the men who practiced dentistry had not been trained in cooperation. There were many jealousies. Methods of practice were regarded as valuable secrets. Charlatanism was rampant. Still the leaders of the young profession believed that their journalism should be independent and some of them, particularly Chapin Harris, made extraordinary sacrifices to that end. Harris deserves great honor, for the *American Journal of Dental Science* could not have served the profession during the many years that it did if his heroic work and financial sacrifices had not maintained it. He bore this burden so generously that at the end of an unusually useful life he was practically destitute. There are not many today who would do so much, though we are not entirely without men who are willing to make great sacrifices.

The first dental journal appeared in 1839. The dental trade-houses quickly discovered the great value of journals as advertising
media. The growth of the profession was accompanied by an even more rapid enlargement of the specialized field of industry that supplied its needs. Some of the early trade-house interest took the form of financial assistance for, and giving the benefits of business experience to, the existing journals; but usually desire to control, and lack of professional interest among dentists, led dental trade-houses to establish journals of their own. Most of the well-known dental trade-houses have, at one time or another, owned “dental” journals. Many of these proprietary journals have been well edited and carefully published, and have served professional interests quite as effectively as commercial purposes. For all the good in their work, careful students give trade-house journals full credit. Usually, however, cooperation gave way to competition. The trade journals were distributed free, or for a nominal subscription price, with the result that the professional journals could not meet the competition and failed for lack of financial support.

As the trade-house journals grew in strength, they developed the very human desire to dominate the field, a condition which seems often to accompany business success; and, by 1878, there was only one independent dental journal—the Canadian Journal of Dental Science—on the continent. But, despite the great influence of the trade journals, there were always forward-looking men in dentistry who felt that dental journals should be owned and controlled by the profession. That dentistry was dissatisfied with trade-house control is indicated by recurrent efforts to create non-proprietary periodicals. Waves of enthusiasm for the cause, as indicated by periods of literary activity in its behalf, were usually stimulated by the creation of new independent journals or by particularly strong essays on the subject. Although the interest varied from time to time, it never died out.

The medical profession early threw off the yoke of commercial and trade-house domination that had existed in its journalism. This success was undoubtedly an inspiration and example for the fearless souls in dentistry who shared the same ideals. However, the dental trade-journals were so influential and financially profitable that they tended to become arrogant and to regard critics of the system as
“cranks.” Although the phrase, “published in the interests of the dental profession,” was much used, especially by one of the best known of these journals—Dental Cosmos—this claim would not always stand investigation when brought into comparison with the avowed trade interests of “the house.”

One striking example will illustrate this situation. About twenty years ago, when trade-house journals were at the height of their prosperity and influence, one of the owning companies sent out a remarkable letter, from which I quote:

“The Company has felt for some time the importance of adding its voice and influence to urge the public to ‘Ask Your Dentist.’ We have felt keenly our own responsibility in such publicity, owing to our close relationship, dating over seventy-two years, with the dental profession, which is giving increasing support to our efforts to produce materials for them. This is evident from the enormous growth of our sales in the last twelve months. We owe something to all the profession in a large way. We considered general advertising, but it seemed neither ethical nor practicable . . . [but we] feel that we have the solution to the problem in a new tooth paste . . . and a line of mouth preparations . . . We intend to make an advertising campaign . . . emphasizing . . . the importance of regular visits to the dentist.”

That was what the Company proposed to do for the profession in a large way! It may seem incredible, but the quotations are correct. Is it any wonder that one of the writers of that day, in an independent journal, was moved to say:

“Trade journalism in a profession is a form of vulgar autocracy. When it is benevolent it pauperizes; when it is benignant it patronizes; when it dominates it demoralizes. Like autocracy, it exploits those who maintain it; it misrepresents those who trust it; it seeks to destroy those who challenge it.”

He then went on to say: ‘Why should a journal that is conducted in the name of a profession . . . be managed for private profit? . . . Would it not be to the interest of a profession if profits from its journalism were put into its journals instead of into trade pockets?’

This same writer addressed this pertinent question to the owners of the leading trade journal of that day:


Ibid., p. 586.

Ibid., p. 588.
"I have often wondered why the . . . Company, a house of the highest trade standing, has lacked the unselfishness and the distinction, after deriving a reasonable return on its investment, to turn over, to the dental profession, the journal which that Company has used so long and so successfully in its own trade interest."

No such action was taken, however, until twenty-one years later, when Dental Cosmos was presented to the American Dental Association. By this time, however, there had come about so great a change in the feelings of the profession in relation to commercial titles that the gift was finally rejected, and the name "Dental Cosmos" removed from the position in which it had been placed in temporary association with the name of the Journal of the American Dental Association. How unfortunate that this gift to the profession was delayed until it was too late to produce the good that once would have been possible. The name "Dental Cosmos" stood for so many years as the symbol of the best that was then available in dental journalism that it should have been preserved.

But other great changes within the dental profession had a pronounced effect upon its journalism. Mechanical perfection in treatment had been attained; and now the interest of dentists was being transferred to biology and pathology, as they affect the etiology of dental conditions. Attention was being directed to research. Papers and essays on such subjects were not so attractive for publication in trade-house journals, for often little or no mention was made of anything that could be merchandised. Business men are not inclined to look with favor upon things that do not produce profits. The last decade of the first century of organized American dentistry witnessed a great increase in the number of dental societies. Groups having particular interest in specialized fields came together for mutual benefit. Each organization's desire to publish proceedings, and build up the interest of its members, prompted the establishment of professionally controlled journals dealing with subject matter that had little or no interest for trade-houses because it did not often offer opportunity for sales promotion. This development also directed the interest of a great number of dentists to the desirability of journal-

istic freedom from commercial control, and increased support for this cause. It is significant to note, in passing, that while there was but one professional journal in 1840, by 1940 there were more than one hundred.

About the time the trade-house journals began to decline in influence and number—they have now almost “passed from the picture”—there appeared a new form of commercial journal. I refer to those issued by publishing houses. They accompanied the great growth of advertising, in the nineties. They asked no subscription from the dentist, but were distributed gratuitously. They specialized in short, easily read, well-illustrated articles; but the text was a very small part of each issue. Standards as affecting advertising were not so high as at present. In fact, their pages were open to the advertiser of almost anything that might be sold to a dentist.

The first comprehensive study of dental journalism was that made by the Commission on Journalism of the American College of Dentists, its report having been published in 1932. After a study of all phases of the subject, and an analysis of all the publications in the field, the Commission urged the desirability of professional control. This report aroused widespread interest, and led directly to the formation of the American Association of Dental Editors, the membership of which is restricted to editors of non-proprietary dental journals. In spite of the fact that many of these men and women were without previous special editorial training, the Association has been a potent influence in the present trend of dental journalism. What the members lacked in training was made up in earnestness, enthusiasm, and willingness to make sacrifices of time and strength for the advancement of dental journalism.

In addition to leadership in behalf of professional control of our journalism, the Editors’ Association has been engaged in numerous constructive activities—all intended to promote and advance every phase of non-proprietary dental journalism and literature. The programs of all meetings have been carefully planned, to be of immediate value to editors. A Committee on Cooperation has served admirably for several years in an effort to give practical help by supplying, at intervals, well written, authoritative articles and other
items of current interest. A scholarly study of abbreviations has been made, and an acceptable code for use in titles of dental periodicals and bibliographic references has been recommended. A committee, assisted by representatives of two of the leading proprietary journals, has prepared a Code of Fair Advertising, which should be a great influence for good in a day when general advertising and advertisers tend to "run wild." The spirit of cooperation in this constructive effort stands out in sharp contrast with the conflict of earlier years. Another committee is gathering material that will be helpful to the editors in their actual writing. This is an effort to offset the lack of training, previously mentioned, for it is keenly realized that the strength of dental journalism of the future will be determined by the capacity and ability—as well as the spirit—of the men and women engaged in editorial duties. Other committees have concerned themselves with many matters, such as student publications, reprints, a central advertising bureau, and the like—too many to be listed here. All in all, the success of the Editors' Association, in continuous constructive effort, is impressive and promises a better future for dental literature, provided only that the profession at large will move forward in support.

An interesting incident in connection with the growth of the idea of preferred professional control of dental publications is the recent announcement, by one of the best-known proprietary journals, that it is now under the professional control of a dental society whose membership has been listed in that journal as evidence of the bonafide nature of the claim. This announcement immediately produced a variety of feelings among students of dental journalism. By some it was regarded as a step in advance—that no matter how slight the announced professional control might be at the beginning, it was a cumulative force that would ultimately be of benefit to dental journalism. Others believed it was merely a cloak for ulterior purposes. Presumably only "developments" will determine the realities in the situation. But this much is certain: any group of professional men who assume such a responsibility, and then fail to live up to reasonable professional expectations, can hope for neither honor nor respect from the dental profession.
In spite of all the changes and progress, dentistry's journalistic needs are not being completely met. There are undoubtedly too many small, more-or-less inadequate "society journals"—a situation which could possibly be improved by combining some of them in stronger and better regional journals. Many dental journals are poorly edited; some are not well supported financially; others depend almost entirely upon the interest and enthusiasm of a single editor or a small group of loyal helpers. Conditions of this kind will be changed when the average dentist takes more interest in his journalism. More pride in the literature of his profession will make him more sensitive to commercial influences, less willing to receive his journals gratuitously, and ready to afford the financial support that will assure the highest quality.

The *Journal of the American Dental Association* is a splendid journal that probably outranks any other dental publication in the world; but its load is so great, and the demand upon its pages so heavy, that often an essay is not published until a year or more has passed after it was presented. More effort should be made to publish only new material—to exclude material that has been published over and over again, and is well known. The "J.A.D.A." also needs more aggressive editorial leadership, which political influence may now render impossible.

Dental journalism should be moving forward according to a well-thought-out plan. Several surveys have been made by separate bodies, notably one by a committee of the American Dental Association. Material has been assembled that could be worked into an adequate pattern. That this valuable material should be allowed to remain buried in the records of the greatest dental society in the world is a reproach to the influence responsible for this neglect.

Does not this journalistic evolution reveal a growth of professional spirit of which all dentists, from the greatest to the least, can be proud? From it they should derive an inspiration that will make them more discriminating in their requirements for acceptable dental literature.
EDITORIALS

HOUSTON—1941

Another milestone was passed in this latest meeting of the American Dental Association and all that goes with it. And what about "all that goes with it"? The American Dental Association does have a great function to perform and in the performance of that function, there are many other bodies which contribute in many ways both abstractly and concretely. These contribute abstractly in that enthusiasm, morale, and purpose are developed. They contribute concretely in that men are enabled to find and to see the best; ideals are considered until they become realities in men's minds and hence can be put into action. Truth can be brought out without fear—men are not hampered, save only by their own inabilities.

American College of Dentists

The Board of Regents went into session immediately upon arrival in this beautiful city of the South. Meetings extended through two and one-half days and one evening. Reports of committees, consideration of plans and free discussion took up the hours, which, but for the interest might have been weary.

These reports will all be published, some of which appear in this issue of the Journal. One, the Report of the Committee on Socio-Economics is now being read by a committee of the Regents and will probably appear in book form. It is not necessary that each be reviewed at the moment, but rather that a conclusion be drawn and a general statement regarding all, be made.

Probably the most outstanding fact about the College, its Board of Regents and Committees, is the deep interest taken in the work that each is doing, and all are determined that something shall be done. This was well illustrated at one point when the Regents agreed on the statement of one: "What we want is dentistry in action; be positive, not negative; seek reasons why and not why-not; seek the good and the useful and let the rest go. It is time wasted in debating why a thing should not be—rather find out why it should be." This was further illustrated in the report of the new Committee on Preventive Service, which indicated the desire of these
men to find the basic facts on which to build a possible program. It was again well illustrated in the brief discussion on the subject of geriatrics, through which we will hope presently to inaugurate a committee for the study of this important subject.

These and others are the things the College can do, unhampered by the need of too much political work—they can put "dentistry in action" and these constitute "dentistry in action." Also, a committee of the Regents was appointed to review all reports and plans, and to think out new procedures by which and through which dentistry may go into greater action.

Our approach to the public, our relations, both public and professional, have, in the period just ending, been made through the development of the sciences, chemistry and physics, with their concomitants. Our approach in the period just opening will be through the sciences, biology and sociology, with their concomitants.

The activities of the College are too numerous to delineate here, but to mention one, the promotion and finally the actual financing of research has been one of moment. The first report of this activity was made to the Convocation on Sunday. Here is an enterprise in which several thousand dollars have been invested. You will hear more of this in the future.

The Convocation on Sunday was an enlightening and an inspiring meeting. It was enlightening in that the past years of endeavor were clearly revealed and it was inspiring in that men spoke with so great ardor concerning these things which are best for man, both materially and spiritually. The spirit of these pervaded the remaining meetings of all groups throughout the week following.

American Association of Dental Editors

The American Association of Dental Editors was founded and incorporated in 1931. This then was their 10th anniversary. They have gone through ten years of struggle and effort resulting in a program such as that submitted in Houston. How our literature has developed! Many states have sizable journals and of a splendid quality. The House of Delegates of the A.D.A. passed a resolution providing for the appointment of a committee to study the possibility of distributing some original articles among state journals, especially
when the A.D.A. journal is over-crowded. This will prove a benefit, should it become operative, both to the journals and the profession. Our journals are recognized as spokesmen, scientifically and professionally and for organized dentistry in their various communities. They are powerful and with the large number of editors of different varieties, the voice of the profession is heard.

The Fraternities

The Fraternities represent more particularly the social side of this assembly of dentists. Here, for one evening, we find these groups at banquets and at play. A dinner and a social hour together, renewing old and intimate friendships, and sending greetings to each other—the Fraternity Functions prove to be a very desirable part of the whole program.

The Associated Groups

These comprise the pedodontists, the periodontists, the exodontists, the prosthodontists, the public health dentists, the restorative dentists and others. These are not necessarily named in order yet jocularly the gamut through which the public must pass appears to be in order. The public, in childhood has care provided until periodontal trouble begins, then with teeth removed, the prosthodontists and the restorative dentists are ready for action. Seriously, however, these societies are struggling diligently to provide a better service and their meetings add much to this great assembly.

The A.D.A.

This, of course, is the meeting which in some respects tops all. The announcement of this meeting is the call to all others to assemble, each for its task. The program of the A.D.A., as has been our custom, may be divided into two parts—educational and administrative. The educational program, consisting literally, of hundreds of addresses, essays and clinics, including radio, club and school speakers, was as all inclusive as any previous and equally valuable. In fact, in consideration of changing conditions, one is tempted to say, more valuable, due to researches and clinical advances, than others preceding. This is as it ought to be. But it was a full program and with a large attendance, this being the largest meeting of the Association, with perhaps only one or two exceptions. More than 8200 dentists registered.
One phase of this part of the meeting, the scientific exhibits, is constantly improving. It is an arduous task for a committee, but very well worthwhile. The exhibits this year were a credit to the committee, to the Association and to the profession. We are a growing body with an increasing volume of knowledge. This is science in action.

The administrative side of the program is equally full. There is always much to be done and it takes time. It would not be possible to document all the matters passed upon by the House of Delegates—a few may be cited: development of Pan-American relations; approval of a rehabilitation program; appointment to study the possible condition of the specialists' groups within the A.D.A.; denunciation of teaching by commercial houses and laboratories; trustees advised to study the need for a Bureau of Professional Relations; a plan providing for retirement of employees was presented, which in time will become operative, a necessary thing to do; the question of dental service in industry was discussed—this provides for supervision by the local society and the local health officer; many other matters were presented, and made into law for this Association. One more, of no small importance, was the reorganization of the Index Committee into a Committee on Library and Indexing Service. A new style of index is soon to be forthcoming and through this new approach it is expected that both the Library and the Index will become of greater professional value.

Officers were elected for the coming year. Oren A. Oliver advanced to the presidency and J. Ben Robinson, Baltimore, Md., was elected President-elect. Now we are off for another year and is it a year of uncertainty?

**Combined Undergraduate Curricula in Professional Education**

The new dental program at Harvard includes the discontinuance of the Dental School in 1944, and the current creation of a School of Dental Medicine within the Medical School to succeed the Dental School. If these conditions had been omitted, the stated educational plan and procedure of the new program at Harvard would be analogous to a suggestion frequently made by the present writer,
and included in his report of the study of dental education under the auspices of the Carnegie Foundation (Bulletin Number Nineteen, 1926, page 200), in part as follows:

"F. Various types of combined undergraduate curricula: Combined undergraduate curricula for effective general training in dentistry and in medicine jointly, or in dentistry and in other fields, such as education and public-health administration, through periods of three to five years or more, would favor the development of better service on the borderlines between domains where formal boundaries are becoming indistinct. Such combined [undergraduate] curricula in dentistry and medicine, founded on two years of pre-professional study in an academic college, are needed in several universities. . . . Combined undergraduate medical and dental curricula would provide effectually for adequate general training in these relationships. . . . Neither medical schools nor dental schools have made suitable provision for effectual education in these difficult aspects of oral health-service." [Italic not in original.]

The foregoing suggestion, as published in 1926, outlined a supplementary plan—"needed in several universities"—to afford adequate general undergraduate training of a relatively small number of practitioners for improved service in the phases of practice that most intimately embrace the joint responsibilities of medical and dental health-care. But the proposal was not offered as a general substitute for undergraduate dental education in any university. It did not suggest that any dental school be discontinued to promote it; nor that professional degrees be cheapened to make it popular; nor that it be used as a means to convert a portion of dentistry into a specialty of medical practice, and thus to bring dental education under a jurisdiction that had been traditionally unconcerned about the consequences of dental disorders.

The stated educational objectives of the new dental program at Harvard are readily attainable, in accord with approved university procedures, through active cooperation between dental and medical schools, either in combined undergraduate curricula or through accredited graduate work, or both, and without requiring discontinuance of any school. This being self-evident, questions relating to undeclared objectives of the new dental program naturally arise. Thus, was the normal alternative educational procedure—combined
undergraduate curricula or accredited graduate work, or both, without discontinuance of the Dental School—rejected at Harvard because its adoption would not help to bring about the conversion of a preferred portion of dentistry into a specialty of medical practice? Current comment in New England regarding this private purpose led—at an unusually large annual meeting of the Harvard Dental Alumni Association, on June 18, 1941—to unanimous adoption, after discussion, of the following resolution:

"Mindful of the attainments of dentistry of the past, the activities of the present, and the hopes and aspirations of the future, the Harvard Dental Alumni Association believes that continuance of the autonomy of dentistry is essential in the public welfare."

The issue of the Harvard Dental Alumni Bulletin for October, 1941, contains a note on this meeting (page 11), but omits allusion to the adoption of the foregoing resolution. Why?—W. J. G.

THE CHIEF REQUISITE FOR A COMPETENT DENTIST

An editorial in the issue of the Journal of the Michigan State Dental Society for September, 1941, contains this statement: "Manual dexterity has ceased to be the chief requisite of a competent dentist." Some dental educational trends in the last decade, especially those financed by funds from the Rockefeller Foundation, tend to show that this conception is by no means losing ground. In deciding what should be a dentist's chief requisite, one should consider first what constitutes the practice of dentistry. Today both the general practice and the specialties of dentistry are almost wholly devoted to the treatment of two diseases: dental caries and periodontoclasia, and their sequelae. Dental practice is limited mainly to (a) clinical control by means of fillings or prophylactic measures, (b) extraction of teeth, and (c) replacement of lost dental structures by artificial substitutes. One should also consider orthodontics, because it is the only phase of dental practice which does not treat, in a major way, caries and pyorrhea and their aftermaths. In other words, nearly all of dental service, including orthodontics, is surgery—only a comparatively small portion is medicine—and that means that the dentist operates practically all day with his hands. Of course, discoveries may alter dental therapy but, so long as it remains as it is today, the
dentist must first of all be a competent surgeon. How he can be this and not manually dextrous is difficult to imagine. It is true that without manual dexterity he may be very successful in dental administrative, literary, research or educational pursuits, but not as a practitioner.

For fear that these remarks may be misconstrued by some into the view that this editorial suggests a first-class mechanic is by that virtue alone a competent dentist, the writer adds that a well-rounded biologic educational background is considered not only desirable but fundamental. However, it is not the chief requisite, because all of the biologic background that one can accumulate is not worth anything to the patient if the practicing dentist cannot operate skilfully.—G. C. P.

DENTAL SCHOOLS AND RESEARCH

In 1926, in the Carnegie Foundation’s Bulletin on Dental Education, Gies stated that one of the primary educational needs of dentistry, and one which any regeneration of dental education would emphasize, is the active promotion and advancement of research, by and in dental schools. He wrote also that, while the chief responsibility of dental schools was the training of relatively large numbers of general practitioners of dentistry, the schools in addition should encourage and support research by their teachers.

The question might reasonably be asked now, fifteen years later: Have dental educators met this obligation and made research a vital function of their institutions? One objective method of determining whether they have done this is to note the number of research reports emanating from dental schools, as reflected by the number of presentations before reputable scientific societies. One of the functions of research is not only to discover, but also to report discoveries. Therefore, an examination of the proceedings, for several years, of an established research society in dentistry should elicit significant information concerning the number of schools which obviously are promoting research.

For this purpose, the Proceedings of the International Association for Dental Research, as published in the Journal of Dental Research for a five-year period, 1937 to 1941, have been selected. In this
period, twenty-seven schools were represented by research reports, either read or presented by title. At first glance, that record would appear to be evidence of a generally wholesome situation. Yet the record indicates also that twelve schools, in the past five years, have not reported a single piece of original research before the outstanding dental research society. Further, eight schools have reported only five or less times in that period. It is difficult to believe that a school which has reported research once, three times, or even five times, in five years, actively is promoting research, especially when there are schools which have reported, during the same period, as many as forty-eight to fifty-three investigations.

To say, without additional interpretation, that a total of twenty-seven of the thirty-nine dental schools have been represented in the recent Proceedings of the International Association for Dental Research, does not indicate the exact conditions. These data broken into yearly summaries are more revealing. In 1937, eighteen dental schools were so represented; in 1938, twenty schools; in 1939, seventeen schools; in 1940, nineteen schools; and in 1941, twenty-one schools. Thus the average number of dental schools publicly announcing annually their interest in research during this period is nineteen, or but 48 percent. If we accept the number of papers presented before the International Association for Dental Research as a valid measurement, then we can conclude that less than half of the number of dental schools in the United States are actively promoting and reporting research. Further, if we were to consider the small number of times a school reported, or the quality of the research presented, this percentage would be somewhat less than 48 percent. How much less, unfortunately, cannot be indicated without too much subjectivity.

Still another objective measurement of research activity in dental schools is the determination of the number that were represented in the summaries of the findings and conclusions on the causes and control of dental caries, as published in Dental Caries (2nd edition, 1941). Here, again, we find only about half the number of schools in the United States represented by the authors who submitted summaries. And, by and large, they were the same schools as those
represented in the *Proceedings of the International Association for Dental Research*, as noted above. This figure (56 percent of schools represented) may be misleading, for many authors apparently failed to indicate institutional relationships, although this is not likely to be the case for investigators holding positions in schools. However, everything considered, these two studies—as to number of research reports by dental schools—*do not indicate that research in dental schools throughout the United States holds the important and vital position it should*.

These facts seem to show that the intervening period of fifteen years has not been long enough for dental educators to grasp the significance and importance of research, and to promote research extensively in accredited dental teaching institutions. This situation exists in spite of the clear manner in which the Carnegie Foundation's *Bulletin on Dental Education*, in 1926, stated the necessity for research in the schools. So if, as Gies stated therein, "inspired men of unusual ability, critical judgment, and distinguished service will arise most frequently among the graduates of dental schools that are animated by the spirit of research," then we can expect such men from less than 48 percent of our dental schools.

The Council on Dental Education of the American Dental Association is preparing to conduct shortly a survey of dental education. If as a result of this survey they suggest, as they likely will, that research activity in dental schools be stepped up, they will find much pertinent and leading data in a study of the *Proceedings of the International Association for Dental Research*. For instance: What conditions prevail in those dental schools which foster research to the extent that fifty-three, or fifty-one, or forty-eight research reports can be presented in a five-year period? What accounts for this fertile soil in some schools, and for completely barren soil in others? Has it to do with the type of men on the faculties, their training, the opportunities given them, the physical equipment available, the attitude of the deans—"or what?" These factors should be determined and then, in a broad plan for all schools, be recommended as effective methods and means to foster research in any school.—*T. McB.*
Effects of Filling Materials Upon Dental Pulp

Histology and histopathology have long been prominent sciences in dental education and in dental research. This would lead one to assume that workers in these two closely related sciences have investigated the influences of filling materials upon dental pulp. Strangely enough, the reported findings are few. Does this indicate that histologists are not interested in the subject? Possibly it does—no one seems to have been able to arouse special activity in such projects. Among the few researches that have been published are those of Palazzi, Fasoli, Manley, and Gurley and Van Huysen, who have reported histologic findings showing irritations caused by different types of cement, although their conclusions are not in entire agreement.

Manley, in England, concludes that silicate cements and "copper oxyphosphate germicidal cement" are very irritating to the pulp, and that zinc oxide-eugenol cement is remarkably bland and shows no untoward action upon the pulp. Gurley and Van Huysen, in the Dental School at the Medical College of Virginia, also found that zinc oxide-eugenol cement does not irritate the pulp, but that zinc phosphate, red copper, and silicate cement each produces reactions, the severity of which is largely dependent upon the thickness of the dentin between the cement and the pulp. More work of this type should be done to determine the destructive as well as the protective actions of cement upon dental pulp. However, it seems safe to conclude that zinc oxide-eugenol cement is the best material now available for pulp capping, and for lining deep cavities prior to the insertion of other types of filling materials. There is great need for more research of this type, to include detailed investigations of the metallic as well as the ceramic filling materials.—G. C. P.

THE USE OF WORDS

It is an old saying that "one is known by the company he keeps." This word "company" may be enlarged upon so that it really means environment. And environment means the total surroundings including both animate and inanimate; the seen and the unseen; the thoughts and the expressions and the use of words by which a thought may be expressed. Is there anything which attracts more ardently than the proper use of words? In fact, it may be said that the good use of words is a gift.

Whether it be a gift or not, there is no one who cannot make an effort at least, to use proper words and continued effort is sure to result in improvement. However, many words are aimed to fit an occasion and often times continued usage does make them acceptable, e.g., chisel and chiselling. Some of these indicated herein may be among this group, but one often wonders if more care should not be used in the beginning.

Here are some among the most common: publicize—meaning to advertize, publish or announce. Why not be content with the original word, advertize or publish? Notarize—this is more difficult to accept. A matter is attested before a notary and to contract to the verb, notarize, is not good English—it is slang, nor does it convey the intent. An educator summarized his remarks by concretizing, for he stated, "now, to concretize." Presently we will dentalize or chairize our patients. And have we done just this? The latest is to surgerize our patients in preparation for dentures. Or perchance we will surgerize, then prosthetize. Merely add "ize" to a noun and you have the verb. But is it good usage? One mark of the professional man is that he shall manifest his education by the use of good words and by the presentation of his thoughts in good expressions. What have you to say?
Endowment Fund—Journal of Dental Research

During the past two years a campaign has been conducted by a voluntary committee, in an effort to raise a fund of $50,000, the income from which might be used for publishing the Journal of Dental Research. We have called upon the profession and the response has been very good. However, we still need approximately $18,000. We would like to conclude this in the next four months. Various Journals will present our plan early this spring, and may we not have full professional cooperation? Will you join the rest of us and let us finish up by June 1.

Educational Conference, 1942

The first conference on dental education, under the direction of the Council on Education, was held in Chicago, in February, 1941. This proved to be so valuable an undertaking, that it has been deemed well to issue a call for a second such conference to be held at the time of the midwinter meeting of the Chicago Dental Society, at the Palmer House, in Chicago. The meeting will be held all day Saturday, February 21.

The morning session will be devoted to a consideration of methods of eliminating obsolete procedures and processes in teaching and examining dental students. At a luncheon meeting, President Snyder of Northwestern University will speak on the subject, “The University and Professional Education.” During the afternoon, “The Design of the Dental Curriculum” will be discussed from the standpoint of an integration with medicine and that of the autonomy of dentistry. This should be an interesting as well as valuable session. These are days of change and we must look well to possible changes within our own field. All dentists are invited to attend these sessions.
CORRESPONDENCE AND COMMENT

DENTAL OFFICERS OF THE ARMY AND NAVY NOT IN CONTROL OF DENTAL AFFAIRS

The following excerpt from a letter summarizes some opinions of well-informed dental officers in the Army and Navy:

"The report and comment on 'subordination of dentistry in governmental services,' as published with comment on pages 143-144 of the issue of the Journal of the American College of Dentists for June, 1941, were read with interest. The [A.D.A. Legislative Committee's] report, while calling attention to certain existing conditions, nullified its own good when the Committee stated that it 'is opposed to any plan which would disturb the present basic organization of the government medical departments.' What is 'the present basic organization?' It is this: dental officers are directly subordinate to medical officers; and the latter control all dental matters of policy, administration, personnel, material, etc. That is exactly what needs to be changed, and the Committee erred in not advocating such a change in 'basic organization.' There is need for each profession to have full control of its own affairs—the dental officers to have as full control and final decision in all their affairs as that accorded any other service corps. Long experience indicates that the dental profession in the governmental services should be as autonomous as it is in civilian life. The situation may be epitomized by borrowing, without the qualifying phrase, a part of the Committee's report: '... no adequate administration of dental service can be hoped for until the dental personnel of the governmental agencies are granted administrative authority by regulation or law and charged with all activities pertaining to dental personnel, service, training and supply. . . .'"(9)

Comment. The private communication from which the foregoing statement has been quoted also presents further evidence that dental officers of the Army and Navy are not free to speak in criticism of existing conditions. But such dental officers are given the utmost freedom to praise medical officers and their conduct of dental affairs. The evidence also indicates that there are ways, short of official discipline, of making conditions most unfavorable for a dental officer who has the temerity to reveal unsatisfactory results of the present set-up. The communication on pages 143-144, to which the fore-

1The terminal numerals in parenthesis are inserted for purposes of identification in the records of this Journal.—[Ed.]
going quotation alludes, contained this statement: "... It was voted [by the A.D.A. Trustees] that the report [Legislative Committee] be referred to the Contact Committee on Legislation. ..." This was followed by the correspondent's question: "Does this reference mean consignment to action or inaction?" We commend to the attention of the said Contact Committee not only the "philosophy" stated on page 144 of our issue for June, 1941, but also the conditions indicated above and those outlined under "Two points of view," on pages 232-234 in our issue for September, 1941.— [C. Ed. (9)]

Correction and Clarification by Dean Miner

A. The issue of Time, "the weekly news magazine," for September 29, 1941, presents, on page 55 under the heading "Harvard Dentists," a statement about the new dental program at Harvard University, from which the following paragraphs are quoted:

"Last week nine college graduates marched into Harvard's dental school, listened to a few cheering words from Dean Leroy Miner, then went right next door into medical school. There they started courses in biochemistry, anatomy, physiology. None of them will look at a cavity for three years. So ended a one-man revolution which Dean Miner has plotted for 57 years—the merging at Harvard of dentistry with medicine.

"Dean Miner and President Conant of Harvard believe that the nation's biggest medical problem, decaying teeth, could be overcome if students were set to research on the cause of dental disease. (Almost one-fourth of the men inducted into the Army need immediate dental care.) At present, they claim, most of the 70,000 practicing U. S. dentists are too busy filling, polishing and pulling, to give any heed to research. Nor do they know a great deal about the tooth as an organ of the body.

"Instead of the usual four-year course devoted almost entirely to mouth and teeth, students at Harvard School of Dental Medicine will have a seven-year grind. After three and a half years in medical school, they will wind up with one and a half of dentistry, tackling such problems as teeth and diet, pyorrhea, malocclusion (improper biting). At graduation, students will receive both an M.D. and Doctor of Medical Dentistry degree. Before going into research (probably none of them will become family dentists), they will have to spend a year or two interning in hospitals, for practical experience."

The foregoing statement raises a number of questions, but I ask
only one: Is it true that “Dean Miner has plotted (!) for 17 years—the merging at Harvard of dentistry with medicine?” I suggest that Dean Miner be invited to state publicly just where he stands; that an advance copy of this note, offered for publication in your December issue, be presented to Dean Miner; and that his response and your comment on it, and on this statement, be published together.—(10).

B. A “newspaper release” from the Harvard University “news office” on September 24, 1941, entitled “Harvard Opens School of Dental Medicine,” contains the following statement:

“Dean Burwell, of the Harvard Medical School, in commenting on the plan, said: ... Dean Miner of the Dental School is to be congratulated. The efforts that he has made to bring medicine and dentistry into a closer and more effective relationship have now resulted in another important experiment in dental education.” [Italic not in original.]

In this comment there is no allusion to Dean Burwell’s well-known view in this relation, as expressed in such earlier statements as those that follow (this Journal, 8, 70-71, 1941, Mar.):

“It is necessary, if dental investigation is to go ahead in the direction of prevention, to have a fruitful union between workers in dentistry and workers in medical and biological sciences. Practically speaking, this can be done only by creating first-rate university dental schools as parts of first-rate university medical schools. This opportunity exists at Harvard. ... Harvard University realizes both the need and the opportunity to establish dentistry as an integral branch of medicine. ... This kind of a dental school must develop as a part of the university and of a medical school, and with the active support of both.” [Italic not in original.]

That the intentions and objectives in this situation are clearly envisaged by “Harvard men”—who have special opportunities to see clearly what is “coming off”—is indicated by the following resolution, which was adopted unanimously by the Harvard Dental Alumni Association at its annual business meeting (June 18, 1941), where the attendance far exceeded that of previous years:

“Mindful of the attainments of dentistry of the past, the activities of the present, and the hopes and aspirations of the future, the Harvard Dental Alumni Association believes that continuance of the autonomy of dentistry is essential in the public welfare.”—(11)
Comment. On October 6, in harmony with the suggestion at the end of section A, above, a copy of the foregoing combination of two statements was sent to Dean Miner, with a letter inviting him to clarify the situation thus presented, "either as a direct response—or as a quotation from a correction that . . . [he] probably intend[s] to publish elsewhere before the appearance of our December issue." His reply is appended.

Response by Dean Leroy M. S. Miner: October 28, 1941

The article in Time, entitled "Harvard Dentists," was so seriously inaccurate that it seemed necessary to make a statement outlining the facts. A copy of a letter by me to the editors of Time follows:

"October 17, 1941

To the Editors of Time,

"Time and Life Building,

"Rockefeller Center, New York

"Sirs:

"For the sake of truth, I would like to correct some misstatements made in your article, 'Harvard Dentists,' appearing in Time for September 29th.

"I. The nine college graduates you refer to did not march into Harvard's Dental School, nor did they listen to 'a few cheering words from Dean Leroy Miner.' As yet I have not met these men, either as a group or as individuals.

"II. It is not true that I have 'plotted for 17 years' a one-man revolution, 'the merging at Harvard of dentistry with medicine.' I have, however, worked openly, along with others, to close the unfortunate gap between dental education and medical education, and between dental and medical practice. A closer integration of medicine and dentistry is in the interest not only of the professions but more especially in the interest of the public welfare.

"III. Never have I, nor has President Conant so far as I know, expressed an opinion such as is contained in your statement, 'Nor do they [dentists] know a great deal about the tooth as an organ of the body.' As a matter of fact, dentists do know a great deal about the tooth as an organ of the body, especially about its anatomy and physiology. It is this knowledge that has enabled American dentists to do the remarkable things that have received acclaim the world over. Moreover, many dentists are making serious sacrifices of time and money in the interests of research so that new knowledge may steadily increase.

"Very truly yours,

(Signed) "LEROY M. S. MINER"
My statement under heading II, in the above letter, should answer definitely the question that has been raised: "Is it true that Dean Miner has plotted for seventeen years—the merging at Harvard of dentistry with medicine?"

I am in favor of the development of intimate relationships between medicine and dentistry, on a basis of professional, intellectual, and social equality and mutual respect, without impairment of the independence of dentistry to develop its educational and professional activities, and without discontinuance of dental schools—separately organized in universities and approved by the Council on Dental Education of the American Dental Association—as the chief agencies of undergraduate dental education.

In support of the foregoing statement of principles, I quote the following comment from my discussion of the Harvard Plan before the American Association of Dental Schools, 1940, and published in the Proceedings of that organization (1940, page 162):

"For fifteen years at least I have been interested in bringing medicine and dentistry closer together, and I mean closer together, not to have dentistry absorbed by medicine, but to bring the two professions together is demanded in the interest of the public and in the interest of both professions, it seems to me."

Regarding my attitude toward dental education in general, and the new Harvard Plan in particular: the following quotation from my address as President of the American Association of Dental Schools, in St. Louis, 1941, and published in the Proceedings of that organization (1941, page 28), emphasizes what I stated above:

"One of the important problems growing out of the development of the defense program in the medical area is a satisfactory integration of medicine and dentistry. This is not a new subject, for it has been discussed ever since the first dental school was formed. That it is an important one is suggested by a statement made by Dr. George Wilson in his presidential inaugural address, delivered at a convocation in Cleveland, Ohio, September 8, 1940. In his closing sentence of a discussion of the medico-dental relationship, Dr. Wilson says: 'Our future status as a profession is dependent to a large extent upon a satisfactory medico-dental relationship.' The discussion of this subject has been particularly acute this last year because of an announcement by Harvard University of a new plan of dental education in which the Dental School was to be taken over by the Faculty of Medicine. It is unfortunate that President Conant of Harvard University is not going to be able to be here on Wednesday as had been planned, and speak on the subject of this New Plan at Harvard, for he might have clarified some of the many
questions which have arisen regarding this plan. As most of you know, he is in England on a mission for the President of the United States. In spite of the discussion of the integration of medicine and dentistry for one hundred years, no solution of proven value has yet been found. When the solution does come, it will be, I am sure, on terms of professional, intellectual, and social equality and mutual respect, not through complete absorption and control of dentistry by medicine."

For those who desire to pursue the matter at greater length, I suggest a careful reading of "Dental Education in the United States," by Dean John T. O'Rourke and Dean Leroy M. S. Miner, recently published by Saunders, in which various plans of dental education are discussed with opinions expressed that are now matters of record.

Finally, I subscribe thoroughly to the following principles laid down by the Council on Dental Education, of which I have the honor to be a member:

"Inasmuch as no curriculum has enduring value, the curriculum of each dental school is to be judged finally not by its conformity to type, not by mechanistic measurements, not by the announced length, breadth and depth of its course of study, but in terms of its achievement of its own stated ends. . . . The organization of the curriculum should be flexible and should be based on appreciation of dentistry as a growing and expanding science. It should afford opportunities for adjustments to advances in knowledge and for constant investigation and research relative to its value in the educational program. . . . The efforts of the Council will be to encourage and foster intelligent curriculum experimentation, the development of institutional individuality, and the achievement of excellence without the establishment of uniformity. In the evaluation of a curriculum the Council will therefore not place reliance upon arbitrary pattern, inflexible standards, or exact quantitative means of measurement."

The foregoing response by Dean Miner corrects three personal misrepresentations in the article in Time, which evidently had been misinformed. His statement also declares, clearly and directly, with supportive quotations, that he favors

(a) the greatest attainable accord, on a basis of equality, in medico-dental relationships,

(b) "without impairment of the independence of dentistry to develop its educational and professional activities," and

(c) without discontinuance of separately organized and officially approved university dental schools "as the chief agencies of undergraduate dental education."
Dean Miner's statement indicates that he believes the educational objectives of the new Harvard School of Dental Medicine as officially stated could be attained, in the existing Dental and Medical Schools at Harvard, by elective and graduate procedures now in conventional use in dental and medical schools in universities. His response is a dignified exemplification of academic freedom. His non-concurrence in the new dental program—which includes the development of a School of Dental Medicine within the Medical School and, in three years, the planned discontinuance of the Harvard Dental School—has been indicated in a becoming way under the restraint imposed by devotion to, and respect for, his university. —[C. Ed. (10)]

A “NEW ONE” IN DENTAL THERAPY

An editorial in the issue of the Journal of the American Medical Association for September 27, 1941, entitled “Dietary Healing of Dental Caries” (page 1099), begins and ends as follows:

“Sognnæs, of the Department of Pathology, University of Rochester School of Medicine and Dentistry, reports that under certain favorable dietary conditions experimental dental caries in rats may be completely healed, with restoration of practically normal tooth structure.” (Science, 93, 617; 1941, June 27). These observations offer a new experimental approach to the microscopic study of reparative processes in carious teeth. If an equally efficient regenerative process can be demonstrated or promoted by proper dental hygiene in man, Sognnæs's observation may well initiate a new era in practical dental prophylaxis and therapy."

Does this editorial show superior medical understanding of dental conditions?—(12)

Comment. An examination of Sognnæs’s publication in Science indicates that he referred not to the “restoration of practically normal tooth structure,” as the medical commentator alleged—not to enamel in any sense—but only to “defensive processes” in dentin. He said that, after induction of molar caries by a caries-producing diet, the adequate diet he then substituted stopped the caries process and “the exposed dentin was found hard and polished. . . The dentin had a sclerotic appearance and beneath every place where the outer part of the tooth had been subject to attack a new thick layer of secondary dentin had been laid down, which reestablished a safe
distance between the external tooth surface and the pulp. In some cases this protective layer had attained the thickness of the original dentin.” [Italic not in original.] The word “enamel” was not mentioned in Sognnæs’s presentation of his suggestive findings.—
[C. Ed. (11)]

Open Invitation to Observers in Periodontia

The Periodontia Department of the College of Dentistry of New York University has extended an open invitation, to each investigator in the field of periodontal disease who has published a paper or papers containing the results of either laboratory research or clinical observations bearing directly or indirectly on the etiology or treatment of periodontal disease in man or animals, (1) to submit a concise summary of his published data which he now regards as his basic contributions in this field and which agree with his present views, or with his experience and thinking as of a date to be specified by him; also (2) to cite the location and time of appearance of such paper or papers; and (3) to include any additional comment he may regard as necessary to amend his response so that it would accurately reflect his present opinions. These summaries will, therefore, contain only present opinions, rather than a résumé of all the results of each worker’s endeavors—which, if given, would include errors, duplications, altered views, etc., and other matters now irrelevant. The compilation of these summaries, which will not be a series of abstracts of papers on either the etiology or treatment of periodontal disease but instead a presentation of the essence of each investigator’s present views, will be published in book form. All responses, to be included in the book, should be delivered to the Periodontia Department, New York University, not later than March 15, 1942.—(13)

Comment. The worthy project outlined above is analogous to that of the successful pioneer plan for Dental Caries, the first edition of which was published by the American Dental Association in 1939. The second edition, recently published (1941), was discussed editorially on pages 212-13 of our issue for September, 1941.—[C. Ed. (12)]
NOTES

PROSPECTIVE LAW AGAINST INTERSTATE DISTRIBUTION OF MAIL-ORDER DENTURES

Dr. Philip Andrew Traynor, F.A.C.D., is a representative of the State of Delaware in the seventy-seventh Congress of the United States. Recently (September 17, 1941), Dr. Traynor introduced in the House of Representatives a bill (H.R. 5674) “to protect the public health by the prevention of certain practices leading to dental disorders; and to prevent the circumvention of certain state laws regarding the practice of dentistry.” The bill prohibits the business of constructing or supplying dentures—from casts or impressions sent through the mails or in interstate commerce—for the purpose of sending or bringing them into any state, the laws of which prohibit the taking of impressions or casts of the mouth or teeth by a person not licensed under the laws of such state. It also prohibits the construction or supplying of dentures by a person other than, or without the authorization of a prescription of, a person licensed under the laws of any such state to practice dentistry. The bill would prohibit the transmission, in interstate commerce, of any dental impression taken by a layman, and also of any denture constructed from such an impression. The bill, which clearly aims to prevent distribution of mail-order dentures, has been referred to the Committee on Interstate and Foreign Commerce.—[C. Ed. (11)]

WORD-SEQUENCE: “MEDICAL AND DENTAL,” OR “DENTAL AND MEDICAL”

A recent advertisement for a college of dentistry contained the following statement:

“Faculty: Members of the faculty have been selected from the medical and dental professions because of their teaching ability and reputation in their chosen field.” [Italic not in original.]

The present writer favors attainment of the most intimate accord in the relationships between physicians and dentists (“medico-dental relationships”), without impairment of the independence of dentistry as an autonomous profession; but improvement of these relationships is not promoted by intimations of dental inferiority or dental subordination where or when no occasion for either exists.
In the foregoing announcement, by a dental school, the word-sequence is “medical and dental” instead of “dental and medical”—suggesting an assumption that medical instruction is more important than dental instruction in a dental school.—[C. Ed. (12)]

**THE “HARVARD PLAN” UNFOLDS**

Early in the announcements about the “Harvard Plan” it was said that the Dental School would be “renamed” the School of Dental Medicine. Later we learned that the Dental School will be discontinued, and succeeded by the School of Dental Medicine within the Medical School—in effect, the Dental Department of the Medical School. The program of the “eighth annual congress of the American Association for the Advancement of Oral Diagnosis,” in New York City on November 13-14, 1941, included the following subject: “The present status of the new School of Oral Medicine at Harvard University,” by Dr. Kurt H. Thoma, one of the members of the Committee that formulated the “Harvard Plan.” The issue of the *Harvard Dental Alumni Bulletin* for October, 1941, indicates on page 3 that the five-year curriculum as originally projected will be lengthened in the second, third and fourth years by the addition of summer sessions, to effect a total extension equal to about one conventional academic year. This change makes the time requirement of the M.D.-D.M.D. combined undergraduate curricula approximately equal to six years of ordinary academic length. An official “release” from the Harvard “news office,” for the newspapers on November 15, 1941, indicates that there will be “summer work in at least three of the years.” Perhaps “at least” implies expectation that there will be further extensions. “Time marches on.”—[C. Ed. (13)]

**“MOBILIZATION OF DOCTORS, DENTISTS”**

Under the above heading, a recent issue of “Information Digest” (No. 282, Aug. 28), from the Office of Government Reports, included these statements:

“FSA Administrator McNutt announced plans have been approved for mobilization of physicians and dentists to meet special demands for medical care arising as the national defense effort approaches its maximum. Mr. McNutt said the plans recognize need for a systematic approach to the
mobilization and have full sanction of the American Medical Association and the Health and Medical Committee of his office, and steps are being taken for enabling legislation. 'To administer the mobilization . . . a single recruitment and assignment agency would be set up in cooperation with the Army, Navy, and Public Health Service,' he said. 'The plans . . . are designed to meet both military and civilian needs.' He said the program takes into account such factors as distribution of doctors and dentists in relation to the population of the communities in which they reside, their training and experience, and their availability for service in the defense program. FWA Administrator Carmody announced presidential approval of 27 additional defense public works projects in 14 States at a cost of $7,181,356 'to provide facilities or services necessary to the health, safety or welfare of persons engaged in defense activities.'”—[C. Ed. (14)]
NEW BOOKS

Pathology of the Oral Cavity, by Lester Richard Cahn, D.D.S. Since the mouth is not only the seat of many forms of local lesions but also frequently involved in other diseases, this concise oral pathology will be a boon to virtually every dentist, physician, surgeon and specialist. This book deals with all lesions that are ordinarily seen in every-day practice, including certain rarer diseases, such as tuberculosis. The pathological conditions of the various lesions are coordinated in text and illustration, with their clinical history and appearance, hence the author presents a desirable text and a practical reference book for diagnosis. Published by The Williams & Wilkins Company, Baltimore, Md. Price $5.50.

Accepted Dental Remedies: Seventh edition has just come from the press. It contains a list of official drugs selected to promote a rational dental materia medica and descriptions of acceptable non-official articles. Published by the Council on Dental Therapeutics of the American Dental Association, 212 East Superior Street, Chicago, Illinois. Price $1.

SUPPLEMENT

It has been our custom to reprint in the Supplement in the terminal issue of each volume various matters of permanent interest on the covers of the successive issues in the volume.

AMERICAN COLLEGE OF DENTISTS

(A) Sections


(B) Standing Committees (1940-41)

Certification of Specialists—E. W. Swinehart (45), chairman; Max Ernst (42), H. C. Fixott (44), W. E. Flesher (41), C. O. Flagstad (41), J. O. McCall (43).

Education—W. C. Fleming (44), chairman; A. W. Bryan (43), Harry Lyons (45), J. T. O'Rourke (43), R. S. Vinsant (41), L. M. Waugh (42), F. W. Hinds (42).

Endowment—A. H. Merritt (42), chairman; H. J. Burkhart (45), Dan U. Cameron (41), Oscar J. Chase (44), Wm. J. Gies (45), E. W. Morris (43).

History—W. N. Hodgkin (44), chairman; W. H. Archer (45), H. L. Banzhaf (41), E. E. Haverstick (42), J. B. Robinson (43).

Hospital Dental Service—Howard C. Miller (43), chairman; R. W. Bunting (44), E. A. Charbonnel (45), L. M. Fitz-Gerald (41), Leo Stern (42).

320
Journalism—J. Cannon Black (45), chairman; J. M. Donovan (45), W. B. Dunning (44), Walter Hyde (44), B. E. Lischer (43), T. F. McBride (41), E. G. Meisel (42), E. B. Spalding (44), R. C. Willett (42).

Necrology—J. V. Conzett (41), chairman; F. H. Cushman (42), P. V. McParland (45), R. H. Volland (43), M. L. Ward (44).

Nominations—H. E. Friesell (45), chairman; E. N. Bach (41), G. M. Damon (44), H. O. Lineberger (43), H. W. Titus (42).

Oral Surgery—M. W. Carr (41), chairman; E. R. Bryant (42), C. W. Freeman (44), W. I. Macfarlane (43), W. H. Scherer (45).

Preventive Service—L. A. Cadarette (45), chairman; Hermann Becks (44), C. S. Foster (43), E. M. Jones (42), E. W. Swanson (41).

Prosthetic Service—W. H. Wright (43), chairman; W. H. Grant (41), C. A. Nelson (45), A. P. O’Hare (42), A. H. Paterson (44).

Relations—J. O. Goodsell (43), chairman; H. F. Hoffman (45), L. E. Kurth (41), T. E. Purcell (44), Nathan Sinai (45), Wilmer Souder (42), E. G. Van Valey (45).

Research—A. L. Midgley (42), chairman; L. E. Blauch (44), W. D. Cutter (43), J. E. Gurley (42), P. J. Hanzlik (45), P. C. Kitchin (43), A. B. Luckhardt (41), L. R. Main (44), L. M. S. Miner (41), Irvine McQuarrie (45), Fr. A. M. Schwitalla (44).

Socio-Economics—C. E. Rudolph (43), chairman; E. H. Bruening (44), W. R. Davis (41), Waldo H. Mork (43), B. B. Palmer (45), M. W. Prince (45), Maurice William (44), G. W. Wilson (42).
INDEX

Volume 8: 1941


A. A. D. E.: Reference, 259, 293; editorial on, 297

Accepted Dental Remedies (A. D. R.), 319
Acrylic Resins: attempt by manufacturer to license use to profession, 111
—: hokum about (editorial), 67
Act: National Selective Training and Service of 1940, 171
Addresses: Presidential; Achievements of American College of Dentists, 250
Cyclotron, Relationship to Biology and Medicine, 14
Dental Caries: Frequency of Occurrence, Hereditary Factors, 270
Dental Caries: Tooth Enamel, the Point of Attack, 275
Dental History, Subject of Undergraduate Instruction, 153
Inaugural, 255
National Defense from D. Viewpoint, 9
Research, an Indispensable Aid to Professional Progress, 265
Advertising: truth in (editorial), 223
Allergy: Novocain, 151
Alliance: dentists' mutual protective, 183
American Association for the Advancement of Science: Philadelphia meeting (1940); committee of arrangements, personnel, presiding officers, secretary subsection on d., abstracts of addresses, 44-61
American College of Dentists: editorial on, 296
—: ad interim activities; regents' meeting, Chicago, Feb. 16, 1941, 41
—: Cleveland Convocation (1940); address, See Addresses

American College of Dentists (con.): Cleveland Convocation (1940) (con.); reports of committees; centennial celebration, 25; history, 25; hospital d. service, 28; journalism (years of achievement), 30; oral surgery, 36; prosthetic service, 104; relations, 123; research, 128; fellowship and grants-in-aid in research, 129
—: Houston Convocation (1941); addresses: inaugural, 255; presidential, 250; See also Addresses. Report of secretary, 283; fellowships conferred, 286; necrology report, 239
—: Wilson, Geo. W.; president (1940-41), i, 77, 250
American Dental Association: editorial on, 298; references, 136, 168
—: process patent committee, 183
—: bulletin; a proposed activity (editorial), 136
Angell, R. C.: and Crowell, W. S.; methods of determining fatigue properties of denture materials, 54
Award, Wm. J. Gies: bestowed on F. B. Noyes, 287

Baker, Zelma: and Harrison, R. W., and Miller, B. F.; effect of synthetic detergents on metabolism of bacteria, 60
Banzhaf, H. L.: teaching biological sciences, 192
Bartels, H. A.: bacteriological appraisal of materials used in root canal therapy, 57
Biology: teaching of sciences, 192, 199

323
INDEX

BLACK, J. C.: years of achievement, (report of journalism committee), 30
Bones: and teeth; observation of radiophosphorus metabolism, 56
BRANDHORST, O. W.: report of secretary, regents' meeting, Chicago, Feb. 16, 1941, 41; Houston convocation, 283
BREKHUS, P. J.: d. caries, frequency of occurrence, hereditary factors, 270
—: Your Teeth: their past, their present, their future, 237
BREMMER, M. D. K.: Chm. dentists' mutual protective alliance, 583
BRODSKY, R. H.: green ray treatment in periodontal disturbance, 51
Bulletin: proposed A. D. A. activity (editorial), 136
CAHN, L. R.: pathology of oral cavity (textbook), 319
Carr, M. W.: report on oral surgery, 36
Casting: d.; history of, 180
CAULK, L. D., Co.: restraining order on use of acrylic resin by d. profession, 113. See also ii., 182
Cements: copper (editorial), effect on d. pulp, 305
—: silicate (editorial), effect on d. pulp, 305
Children(s) dentistry; disparity between need and care, 59
Clinician; important link in d. research, 52
CONANT, Jas. B.: President, Harvard University; reference, 1
CONZETT, J. V.: Necrology committee, report of, 239
COOK, T. J.: and SUNDERMAN, F. W.; hereditary ectodermal dysplasia, 55
Correspondence and comment: correction and clarification by Dean Miner, 309
—: d. officers; not in control of affairs of army and navy, 308
—: filling teeth with college degrees, 144
—: Harvard School of d. Medicine, 69
—: new program, 70
—: oral diagnosis, what does it mean, 146
Correspondence and comment (con.): Periodontists; invitation to observers, 315
—: subordination of d. in government service, 143
—: therapy; "a new one," 314
—: two points of view, 231
—: unwarranted d. pessimism, 229
—: what's in a name: graduate or postgraduate, 71
Credo, 102
CROWELL, W. S.: and ANZELL, R. C.; methods of determining fatigue properties of denture materials, 54
Cyclotron: relationship to biology and medicine, 14

DAVIS, WM. R.: My Credo, 102
DEAKINS, MARTIN: bacteriological and chemical studies on human saliva, 54
Defense; national; d. viewpoint, 9
Degree(s): at Harvard, 3, 5
—: filling teeth with, 544
—: is M. D., prerequisite for research, 1
Dental: care; insufficient, 259
—: caries; a new form of scientific literature (editorial), 212
—: enamel, point of attack, 275
—: fluorine; relation to, 280
—: frequency of occurrence, hereditary factors, 270
—: increase in, national problem, 271
—: report on researches (and edition), 216
—: casting; historical, 180
—: Cosmos; reference to, 292
—: education, 252
—: conference (1942), 307
—: definite goals in, 185
—: function of A. D. A., 165
—: Harvard University, 3
—: in U. S., 236
—: medical control, 116
—: history; library facilities, 159
—: report of committee, 25
—: student interest, 159
Editorial(s) (con.): A. D. A., 298
—: advertising; truth in, 223
—: a splendid heritage: shall it be destroyed, 221
—: Associated groups, 298
—: bulletin; proposed A. D. A. activity, 136
—: chief requisites for a competent dentist, 301
—: clinical research, 65
—: combined undergraduate curricula in professional education, 299
—: committee chairmen, 215
—: d., a diminishing personnel, 140
—: d. and organized science in America, 62
—: d. and selective service, 141
—: d. calls upon, 219
—: d. caries: a new form of scientific literature, 212
—: —; educational conference, 1942, 307
—: d. materials group of I. A. D. R., 135
—: d. materials; standards for, 227
—: d. problems confronting, 223
—: d. schools and research, 302
—: d. students' register (1940), 138
—: endowment fund—J. D. R., 307
—: effects of filling materials on d. pulp, 305
—: Fraternities, 298
—: Houston, 1941, 296
—: M. D. degree; is it a prerequisite for research in d., 141
—: medical science: a nickname, 132
—: research, need for more in medicine and dentistry, 213
—: Taft, Jonathan, 67
—: —; use of words, 306
Education(al): conference, 1942, 307
—: dental, 252
—: d.; definite goals, 185
—: d. history; undergraduate instruction in, 153
—: medical control of d. education, 116
—: public d., deficiency in, 74
Enamel: content; organic and inorganic, 275
—: defined, 276

Enamel (con.): exchange of radiophosphorus in, 57. See also Tooth (Teeth)
—: hypoplasia; pathogenesis of, 61
—: index of refraction, 277
—: mottled, 280
—: point of attack in d. caries, 275
—: structural characteristics, 277
Endowment Fund: J. D. R., 261, (editorial), 307

Fatigue: in denture materials, 54
Fellowship(s): conferred, 286
—: grants-in-aid in research; report of committee, 129
Fischer, M. H.: death and dentistry, 76
Fleming, W. C.: preclinical subjects; discussion on teaching, 192-211
Fluorine: in d. caries, 280
—: —; Fraternities: editorial on, 298

Geriatrics: need for study, 221
Gies, W. J.: award in research; bestowed on F. B. Noyes, 287
—: combined undergraduate curricula in professional education, 299
—: d. caries; a new form of scientific literature (editorial), 212
—: —; report on researches, and edition, edited by, 236
—: medical degree; is it prerequisite for research, 1. See also Footnote, 141
—: medical science; a nickname (editorial), 132
—: medico-dental relationships; notes on, 86
—: organized science; and d. in America (editorial), 62
—: research; need for, in medicine and d. (editorial), 213
Gingiva(ae): report of Keratinization of, 53
Goodsell, J. O.: relations; report of committee, 122
Grants-in-aid: fellowships; report of committee, 129
Grossman, L. I.: and Meiman, B. W.; solution of pulp tissue by chemical agents, 55
GURLEY, J. E.: d. and selective service (editorial), 141
—: d.; calls upon (editorial), 219
—:--; problems confronting (editorial), 223
—: educational conference (1942), 307
—: endowment fund—J. D. R. (editorial), 306
—: Houston, 1941 (editorial), 296
—: register; d. students (1940) (editorial), 136
—: Taft, Jonathan, 67
—: use of words (editorial), 306
—: W. J. Gies award in research, bestowed on F. B. Noyes, 287

HAGAN, C. W.: teaching; basic sciences, 195

HARPER, C. F.: bulletin; proposed A. D. A. activity (editorial), 136
—: a splendid heritage: shall it be destroyed (editorial), 221

HARRISON, R. W.: See Baker, Zelma, et al

Harvard University: d. education; plans for, 115
—: new program (editorial), 299. See also pp. 70, 309-14 and 317
—: reference to, 1
—: release, 2
—: school of d. medicine, 69

HATTON, E. H.: disease; periodontal, clinical classification, 45

HIRSCHFELD, ISADORE: disease; periodontal, curative phase, treatment, 51

History: d.; subject of undergraduate instruction, 153
—:--; utilitarian value, 153

HODGKIN, W. N.: d. history; report of committee, 25

HOLLIDAY, H.: teachers; d. and medical, 197

HOPKINS, J. S.: science; teaching biological, 199

Horizon(s): The new, 96

Hospital: d. service, 28, 253

Houston Convocation: minutes, Board of Regents and convocation, 283

HYDE, WALTER: professional control of d. journalism, 288

Hypoplasia: See dysplasia, ectodermal

I. A. D. R.: reference to, 303
—: d. materials group, 135

Isotope(s): See enamel, exchange of radiophosphorus in
—: metabolism; observations of radiophosphorus in experimental animals, 56

JAWS: clinical pathology of, 76

Journal(ism): dental, 251
—: d. research; W. J. Gies Endowment Fund, 261
—: d.; professional control of, 288
—: d.; study of, 293
—: d.; earliest, 289
—: medical profession; attitude toward, 289
—: trade-house, 289, 290

KERATINIZATION: gingiva; report, 53

KITCHIN, P. C.: A. A. A. S.; secretary, subsection on d., report, 44-61
—: d. caries, enamel point of attack, 275
—: research; report of committee, 128

KLEIN, HARRY; and PALMER, C. E.: d. need and d. care in children, disparity between, 59

KRESHOVER, S.: hypoplasia; pathogenesis in human enamel, 61

LABORATORY: technician. See prosthetic technician

Law: mail-order dentures, 316

Libraries: facilities; for d. history, 159

Licensure: acrylic resins; attempt by manufacturers, 111, 113, 182

MAIN, L. R.: fellowships and grants-in-aid; report of committee, 129

Materials: denture. See Denture materials
—: root canal therapy; bacteriological appraisal, 57
INDEX

Medicine: cyclotron; relation to, 14
——: Harvard School of d., 69
——: preparedness, 234
Medicine(al): teachers; in d., 197, 201
Medico-Dental: relations, 253
Meiman, B. W.: See Grossman, L. I.
Meisel, E. G.: inaugural address, 255
Metabolism: radiophosphorus; observation in bones and teeth, 56
Methacrylate resins: patents on, 181. See also Licensure
Midgley, A. L.: research; an indispensable aid to professional progress, 265
Military affairs: d. affairs not in control of Army and Navy d. officers, 307
Miller, B. F.: See Baker, Zelma, et al
Miller, H. C.: hospital; d. service, report of committee, 28
Miner, L. M. S.: and O’Rourke, J. T.; d. education in U. S., 236
——: Harvard Plan; position clarified, 309
Moore, Sherwood: Cyclotron; relationship to biology and medicine, 14
Mouth: pathology of oral cavity, 319
McBride, T. F.: New Horizon, 96
——: Committee chairmen (editorial), 215
——: d. schools and research, 302
McCall, J. O.: disease; periodontal, preventive phase, treatment of, 49
McGehee, W. H. O.: teachers; medical and d., 201

Notes (con.): Harvard Plan; it unfolds, 317
——: incomes of philanthropic foundations decreasing, 73
——: investigation of base metal alloys in Germany, 235
——: Kronfeld’s opinion on Ipana Tooth Paste, 148
——: Medical and Dental preparedness, 234
——: mobilization of doctors, dentists, 317
——: prospective law against interstate distribution of mail-order dentures, 316
——: research; commercial grants for, in universities, 149
——: sales by d. supply houses, 151
——: tooth-paste; Dr. Kronfeld’s opinion on Ipana, 148
——: word-sequence: “Medical and Dental” or “Dental and Medical”, 316

Novocain: allergy to, 151
O’Rourke, F. B.: recipient of W. J. Gies award in research, 287
Nutrition(al): disease; periodontal, relation to, 48

Orban, Balint: disturbances; periodontal, pathology of, 46
O’Rourke, J. T.: and Miner, L. M. S.; d. education in U. S., 236

Paffenberger, G. C.: acrylic resins; hokum about (editorial), 67
——: advertising; truth in (editorial), 223
——: chief requisite for competent dentist (editorial), 301
——: d. pulp; effect of filling materials on (editorial), 305
——: I. A. D. R.; d. materials group of (editorial), 135
——: letters patent and d. profession, 177
——: personnel; diminishing in d. (editorial), 140
——: research; clinical (editorial), 65
——: standards; for d. materials (editorial), 227

 Necrology: report of committee, 239
 New Books: 76, 236, 319
 Notes: air transportation of wounded in German campaign in Poland, 233
——: allergy; to novocain, 151
——: alloys; investigation of base metal, in Germany, 235
——: commercial grants for research in universities, 149
——: deficiency in d. education of the public, 74
——: education; deficiency in public d., 74
——: foundations; philanthropic, incomes decreasing, 73
INDEX

Service: d.; hospital, 253; report of committee, 28
—: health; medical and d. compared, 93
—: national selective; and training act of 1940, 171
—: preventive; committee on, 263
SLOMAN, E. G.: demand vs. need; remarks on, 171
SMITH, H. S.: centennial celebration; report of committee, 25
SMITH, K. V.: professional fields; teaching in, 203
Socio-economics: 251
—: committee; reference to, 260
SOGNNAES, R. F.: and VOLKER, J. F.; exchange of radiophosphorus in various parts of enamel, 57. See also J. F. Volker, et al
Soldiers: wounded; air transportation in German campaign in Poland, 233
SPRAU, R. L.: schools; d. and medical, teaching in, 205
STAFNE, EDW.: d. schools; medical teachers in, 206
STILLMAN, P. R.: dentistry; notes on evolution of, 188
SUNDERMAN, F. W.: and COOK, T. J.; See Cook, T. J.
TAFIT, JONATHAN: editorial, 67
TAGGART, W. H.: historical episode, 180
TAYLOR, R. P.: discussion; combined medical and d. classes in preclinical subjects, 207
Teachers: d. history, 158
Technicians: See d. technicians
Teeth: and bones; observations of radiophosphorus metabolism, 56
—: filling with college degrees, 144
—: their past, their present, their future, 237
TEUSCHER, G. W.: medical and d. students; combined classes in preclinical subjects, 208
THOMA, K. H.: clinical pathology of jaws, 76
THOMAS, B. O. A.: phenol; penetration in tooth structure, 58
Tooth: hypoplasia. See ectodermal dysplasia
—: International Crown Co., 179
—: paste; Kronfeld's opinion on Ipana, 148
—: phenol; penetration in structure of, 58
—: pulp; solution, by chemical agents, 55. See also Teeth
Trade-house: journals, 290
VAN KIRK, L. E.: d. education; definite goals in, 185
VOLKER, J. F.: and SOGNNAES, R. F. and BIBBY, B. G.; observations on radiophosphorus metabolism of teeth and bones of experimental animals, 56
—: See Sognnaes, R. F.
Vulcanite: historical episode, 178
WILSON, G. W.: address; presidential, achievements of A. C. D., 250
—: d. as a profession, 77
WILSON, J. L.: combined classes in medical and d. preclinical subjects, 209
Words: use of (editorial), 306
WRIGHT, W. H.: prosthetic service; report of committee, 104
YEAR BOOK OF DENTISTRY: 319
ZEMSKY, J. L.: research; clinician, important link in, 52
JOURNAL
OF THE
AMERICAN COLLEGE
OF
DENTISTS

BOARD OF EDITORS (1940-41)
(Nos. 1-3: 1941)

OFFICERS OF THE COLLEGE AND REGENTS EX-OFFICIO

President: GEO. W. WILSON, Milwaukee  President-elect: E. G. MEISEL, Pittsburgh
Vice-President: W. H. SCHEWER, Houston  Secretary: OTTO W. BRANDHORST, St. Louis
Treasurer: HAROLD S. SMITH, Chicago  Assistant Sec'y: WILLIAM J. GIES, New York

ELECTIVE REGENTS OF THE COLLEGE

W. N. HODGKIN (45), Warrenton  E. G. SLOMAN (43), San Francisco
W. F. LASBY (44), Minneapolis  ALBERT L. MIDGLEY (42), Providence
J. CANNON BLACK (41), Chicago

Editor: JOHN E. GURLEY, San Francisco
Associate Editor: Secretary of the College
Assistant Editor: PAUL C. KITCHIN, Columbus

Contributing Editors
WILLIAM J. GIES (45), New York, Chm.  L. E. BLAUCH (45), Washington, D. C.
GEORGE C. PAFFENBARGER (44), CHARLES F. HARPER (44),
Washington, D. C.  Jersey City (N. J.)
THOMAS F. McBRIEDE (43), Pittsburgh  WALTER HYDE (43), Minneapolis
WILLARD C. FLEMING (42), Oakland (Calif.)  CLARENCE W. KOCH (42), Little Rock
PAUL R. STILLMAN (41), Longwood (Fla.)  WILLIAM R. DAVIS (41), Lansing

VOLUME EIGHT
SAN FRANCISCO
1941
JOURNAL OF THE AMERICAN COLLEGE OF DENTISTS

BOARD OF EDITORS (1941-42) (No. 4: 1941)

OFFICERS OF THE COLLEGE AND REGENTS EX-OFFICIO

**President:** E. G. MEISEL, Pittsburgh

**President-elect:** J. CANNON BLACK, Chicago

**Vice-President:** HARVEY J. BURKHART, Rochester (N. Y.)

**Secretary:** OTTO W. BRANDHORST, St. Louis

**Treasurer:** HAROLD S. SMITH, Chicago

**Assistant Secretary:** WILLIAM J. GIES, New York

**ELECTIVE REGENTS OF THE COLLEGE**

F. W. HINDS (46), Dallas

Wm. F. LASBY (44), Minneapolis

ALBERT L. MIDGLEY (42), Providence

W. N. HODGKIN (45), Warrenton

E. G. SLOMAN (43), San Francisco

**Editor:** JOHN E. GURLEY, San Francisco

**Associate Editor:** GEO. W. WILSON, Milwaukee

**Assistant Editor:** GEO. C. PAFFENBARGER, Washington, D. C.

**Contributing Editors**

WALTER J. Pryor (46), Cleveland

WILLIAM J. GIES (45), New York, Chm.

WENDELL D. Postle (44), Columbus

THOMAS F. McBride (43), Pittsburgh

WILLARD C. FLEMING (42), Oakland (Calif.)

PAUL H. JESYEVICH (46), Ann Arbor

L. E. BLAUCH (45), Washington, D. C.

CHARLES F. HARPER (44), Jersey City (N. J.)

WALTER HYDE (43), Minneapolis

CLARENCE W. KOCH (42), Little Rock

COPYRIGHT (1941) BY THE AMERICAN COLLEGE OF DENTISTS

RECORDER PRESS
SAN FRANCISCO, CALIFORNIA
CONTENTS

No. 1, March

American College of Dentists:

Is the M.D. Degree a Prerequisite for Effective Research in Dentistry? William J. Gies, Ph.D., Sc.D., LL.D.  1
Proceedings of the Cleveland Convocation, Sunday, Sep. 8, 1940:
Address:
The Cyclotron and Its Relationship to Biology and Medicine. Sherwood Moore, M.D.  14
Reports of Committees:
Centennial Celebration. Harold S. Smith, D.D.S., Chairman  25
History. W. N. Hodgkin, D.D.S., Chairman  25
Hospital Dental Service. Howard C. Miller, D.D.S., Chairman  28
Journalism. J. Cannon Black, D.D.S., Chairman  30
Ad Interim Meeting of the Board of Regents held in Chicago, Feb. 16, 1941, Series No. 1. Otto W. Brandhorst, D.D.S., Secretary  41


Editorials  62
Correspondence and Comment  69
Notes  73
Books Received  76

No. 2, June

Dentistry as a Profession. George W. Wilson, B.S., D.D.S.  77
Notes on Medico-Dental Relationships. William J. Gies, Ph.D.  86

American College of Dentists:

Proceedings of the Cleveland Convocation, Sunday, Sep. 8, 1940:
Reports of Committees:
Prosthetic Service. Walter H. Wright, D.D.S., Ph.D., Chairman  104
Relations. J. Orton Goodsell, D.D.S., Chairman  122
Research. Albert L. Midgley, D.D.S., Chairman  128
Fellowships and Grants-in-aid in Research. L. R. Main, D.D.S., Chairman  129

Editorials:
“Medical” Sciences: A Nickname.—W. J. G.  132
Dental Materials Group of the I.A.D.R.—G. C. P.  135
Proposed Bulletin of A.D.A. Activities.—C. F. H.  136
Dental Students Register—1940  138
Dentistry: A Diminishing Personnel.—G. C. P.  140
Is the M.D. Degree a Prerequisite for Effective Research in Dentistry?
A Footnote.—W. J. G.  141
Dentistry and Selective Service  141
Correspondence and Comment:
Subordination of Dentistry in Governmental Service ........................................ 143
Filling Teeth with College Degrees ........................................................................ 144
“Oral Diagnosis”: What Does It Mean? ..................................................................... 146

Notes:
Dr. Rudolph Kronfeld's Opinion of Ipana Tooth Paste .............................................. 148
Commercial Grants for Research in Universities ...................................................... 149
Allergy to Novocain ..................................................................................................... 151
Sales by Dental Supply Houses .................................................................................. 151
Errata ............................................................................................................................ 152
Deaths ............................................................................................................................ 152

NO. 3, SEPTEMBER

American College of Dentists:
Dental History as a Subject of Undergraduate Instruction. J. Ben Robinson, D.D.S.,
Baltimore, Md. ............................................................................................................. 153
Dentistry's Place Today. Wilfred H. Robinson, D.D.S., Oakland, Calif. ...................... 161
Some Remarks on Demand Versus Need for Dentists. Ernest G. Sloman, D.D.S.,
San Francisco, Calif. .................................................................................................... 171
ton, D.C. ....................................................................................................................... 177
Definite Goals in Dental Education. L. E. Van Kirk, M.S., D.D.S., Pittsburgh, Pa. ..... 185
A Discussion—Should Preclinical Subjects Be Taught to Combined Classes of Medi-
cal and Dental Students? Willard C. Fleming, D.D.S., Conductor, San
Francisco, Calif. ............................................................................................................ 192

Editorials:
"Dental Caries": A New Form of Scientific Literature.—W. J. G. ................................. 212
Need for More Research in Medicine and Dentistry.—W. J. G. ................................. 213
Concerning Committee Chairman.—T. McB.............................................................. 215
Calls Upon Dentistry ................................................................................................... 219
A Splendid Heritage—Shall It Be Destroyed?—C. F. H. ........................................... 221
Truth in Advertising.—G. C. P. .................................................................................... 223
Problems Confronting Dentistry ............................................................................... 223
Standards for Dental Materials.—G. C. P. .................................................................... 227

Erratum ........................................................................................................................ 228

Correspondence and Comment:
Unwarranted Dental Pessimism ................................................................................ 229
Two Points of View ...................................................................................................... 231

Notes:
Air Transportation of Wounded in German Campaign in Poland ............................... 233
Medical and Dental Preparedness ............................................................................. 234
Investigation of Base Metal Alloys in Germany ......................................................... 235
New Books .................................................................................................................. 236
Deaths ............................................................................................................................ 237
**CONTENTS**

No. 4, December

Corrected Pages, 235-238 of the preceding issue....................................................... 235

American College of Dentists:

Houston Convocation, Oct. 26, 1941:

Necrology: Report of Committee on Necrology. John V. Connell, D.D.S.,
Chairman.................................................................................................................. 239

Addresses:
  Wilson, B.S., D.D.S., President................................................................. 250
  Inaugural: E. G. Meisel, D.D.S., President-elect........................................... 255
  Research: An Indispensable Aid to Professional Progress. A. L. Midgley,
  D.M.D., Sc.D. ............................................................................................ 265

Dental Caries:
  Frequency of Occurrence—Hereditary Factors. Peter J. Brekhus, D.D.S..... 270
  Enamel, the Point of Attack. Paul C. Kitchin, M.S., D.D.S...................... 275

Proceedings of the Houston Convocation, Oct. 26, 1941: Abstract of minutes;
  Convocation and Regents. Otto W. Brandhorst, D.D.S., Secretary............. 283

Professional Control of Dental Journalism. Walter Hyde, D.D.S..................... 288

Editorials:
  Houston—1941 .......................................................................................... 296
  Combined Undergraduate Curricula in Professional Education.—W. J. G................ 299
  The Chief Requisite for a Competent Dentist.—G. C. P............................. 301
  Dental Schools and Research.—T. McB.......................................................... 302
  Effect of Filling Materials Upon Dental Pulp.—G. C. P.............................. 305
  The Use of Words ..................................................................................... 306
  Endowment Fund: Journal of Dental Research............................................ 307
  Educational Conference, 1942.................................................................. 307

Correspondence and Comment:
  Dental Officers of the Army and Navy Not in Control of Dental Affairs...... 308
  Correction and Clarification by Dean Miner.............................................. 309
  A “New One” in Dental Therapy............................................................... 314
  Open Invitation to Observers in Periodontia.............................................. 315

Notes:
  Prospective Law Against Interstate Distribution of Mail-order Dentures...... 316
  Word-sequence: “Medical and Dental” or “Dental and Medical”................. 316
  The Harvard Plan Unfolds....................................................................... 317
  “Mobilization of Doctors, Dentists”.......................................................... 317

New Books ...................................................................................................... 319

Supplement ...................................................................................................... 320

Index ............................................................................................................... 323

Title pages and contents: Volume 8................................................................. i-v
BECAUSE IT BEARS
THE NAME
Williams

For many, many years, the name "Williams" has been identified with the finest in dental prosthesis... That the profession so confidently accepts a product because it bears the name Williams is to us an obligation which we shall steadfastly fulfill.

WILLIAMS XXX
One of Dentistry's Finest Partial Denture Casting Golds
AMERICAN COLLEGE OF DENTISTS
STANDING COMMITTEES (1941-1942)

Certification of Specialists—E. W. Swinehart (45), chairman; Max Ernst (42), H. C. Fixott (44), W. E. Flesher (46), H. E. Kelsey (45), D. F. Lynch (46), J. O. McCall (43).

Education—W. C. Fleming (44), chairman; C. W. Freeman (46), F. W. Hinds (42), Harry Lyons (45), J. T. O’Rourke (43), G. D. Timmons (43), L. M. Waugh (42).

Endowment—A. H. Merritt (42), chairman; H. J. Burkhart (45), O. J. Chase (44), W. J. Gies (45), E. W. Morris (43), J. E. Psylia (46), C. R. Sturm (46).

History—W. N. Hodgkin (44), chairman; H. L. Banzhaf (46), E. E. Haverstick (42), A. W. Laufkin (45), J. Ben Robinson (43).

Hospital Dental Service—W. H. Archer, Jr. (46), chairman; R. W. Bunting (44), E. A. Charbonnel (45), H. C. Miller (43), Leo Stern (42).

Journalism—J. Cannon Black (45), chairman; J. M. Donovan (45), Walter Hyde (44), B. E. Lischer (43), E. B. Spalding (44), R. C. Willett (42).

Necrology—J. V. Conzett (46), chairman; F. H. Cushman (42), P. V. McParland (45), R. H. Volland (43), M. L. Ward (44).

Nominating—H. O. Lineberger (43), chairman; A. W. Bryan (46), G. M. Damon (44), W. R. Davis (42), H. E. Friesell (45).

Oral Surgery—L. M. FitzGerald (44), chairman; E. R. Bryant (42), M. W. Carr (46), W. I. Macfarlane (43), William Shearer (45).

Preventive Service—L. A. Cadarette (45), chairman; Hermann Becks (44), C. S. Foster (43), E. M. Jones (42), E. W. Swanson (46).

Prosthetic Service—W. H. Wright (43), chairman; W. H. Grant (46), C. A. Nelson (45), A. P. O’Hare (42), Jack Werner (44).

Relations—L. E. Kurth (46), chairman; J. O. Goodsell (43), H. F. Hoffman (45), T. E. Purcell (44), Nathan Sinai (45), Wilmer Souder (42), E. G. Van Valey (45).

Research—A. L. Midgley (42), chairman; L. E. Blauch (44), P. J. Brekhus (46), W. D. Cutter (43), J. E. Gurley (42), P. J. Hanzlik (45), P. C. Kitchin (43), A. B. Luckhardt (46), L. R. Main (44), Irvine McQuarrie (45), L. M. S. Miner (46), Fr. A. M. Schwitalla (44).


Announcements


Next Meeting Board of Regents: Chicago, Ill., February 22, 1942.

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.]

JOURNAL OF THE AMERICAN COLLEGE OF DENTISTS

Issued quarterly. Subscription price: $2.00 per volume. Presents the proceedings of the American College of Dentists and such additional papers and comment from responsible sources as may be useful for the promotion of oral health-service and the advancement of the dental profession. Address: Journal of the American College of Dentists, 350 Post St., San Francisco.

THE RECORDER PRESS
SAN FRANCISCO, U. S. A.