

JOURNAL OF THE AMERICAN COLLEGE OF DENTISTS

VOL. 7 SEPTEMBER, 1940 No. 3

Contents

A Report of Progress at the University of Rochester. <i>Basil G. Bibby, Ph.D., D.M.D.</i>	145
Dental Education in America: An Historical Sketch. <i>Harry Bear, D.D.S.</i>	160
The Dental Student and His Literature. <i>Alvin W. Bryan, D.D.S.</i>	165
Dentistry in a Scientific Era. <i>John E. Gurley, D.D.S.</i>	169
American College of Dentists:	
Proceedings of the Milwaukee Convocation, July 16, 1939 (Concluded):	
Reports of Committees to the Board of Regents:	
X. Journalism. <i>J. Cannon Black, D.D.S., Chairman</i>	188
XI. Prosthetic Service. <i>Walter H. Wright, D.D.S., Ph.D., Chairman</i>	208
Editorials:	
Trends in Dental Education. <i>W. C. F.</i>	273
The Harvard Plan	276
News, Notes and Comments	278

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

By THE AMERICAN COLLEGE OF DENTISTS

Editorial Office: 350 Post Street, San Francisco, California

Copyright, 1940, by the American College of Dentists
Made in United States of America

AMERICAN COLLEGE OF DENTISTS

Convocations have been held on this schedule (since organization in *Boston*, Aug. 20 and 22, '20): (1) *Chicago*, Jan. 26, '21; (2) *Milwaukee*, Aug. 13 and 18, '21; (3) *Montreal*, Jan. 25, '22; (4) *Los Angeles*, July 16 and 19, '22; (5) *Omaha*, Jan. 23, '23; (6) *Cleveland*, Sep. 12, '23; (7) *Chicago*, Mar. 5, '24; (8) *Dallas*, Nov. 12, '24; (9) *Louisville*, Sep. 22, '25; (10) *Philadelphia*, Aug. 22, '26; (11) *Chicago*, Jan. 26, '27; (12) *Detroit*, Oct. 23, '27; (13) *Minneapolis*, Aug. 19, '28; (14) *Chicago*, Mar. 24, '29; (15) *Washington, D. C.*, Oct. 6, '29; (16) *Denver*, July 20, '30; (17) *Memphis*, Oct. 18, '31; (18) *Buffalo*, Sep. 11, '32; (19) *Chicago*, Aug. 6, '33; (20) *St. Paul*, Aug. 5, '34; (21) *New Orleans*, Nov. 3, '35; (22) *San Francisco*, July 12, '36; (23) *Atlantic City*, July 11, '37; (24) *St. Louis*, Oct. 23, '38; (25) *Milwaukee*, July 16, '39; (26) *Baltimore*, March 17, '40. [Next Convocation, *Cleveland, Ohio*, Sunday, September 8, 1940.]

Sections and dates of meetings in College year of 1939-40 (between convocations):—(1) *Kentucky*: Sep. 25, '39; June 5, '40. (2) *Northern California*: (3) *Maryland*: June 25, '40. (4) *New York City*: Oct. 27, Dec. 3, '39; May 24, '40. (5) *Minnesota*: Feb. 29, June 5, '40. (6) *New England*: April 23, '40. (7) *Wisconsin*: Nov. 12, '39; Apr. 22, '40. (8) *Colorado*: Mar. 19, June 21, '40. (9) *Pittsburgh*: Nov. 29, '39; May 22, '40. (10) *Iowa*: May 6, '40. (11) *Illinois*: Dec. 11, '39; Feb. 11, May 23, '40. (12) *St. Louis*: Oct. 23, '39. (13) *Oregon*: Nov. 24, '39; Mar. 9, '40. (14) *Texas*: Apr. 9, '40. (15) *Florida*: Oct. 12, '39. (16) *Indiana*: Jan. 8, '40. (17) *Southwestern*: Jan. 18, '40. (18) *Washington, D. C.*: Oct. 30, '39.

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

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

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

JOURNAL OF THE AMERICAN COLLEGE OF DENTISTS

BOARD OF EDITORS (1939-1940)

Officers of the College and Regents ex-officio

President: A. W. BRYAN, Iowa City.

President-elect: GEO. W. WILSON, Milwaukee

Vice-President: HENRY C. FIXOTT, Portland, Ore.

Secretary: OTTO W. BRANDHORST, St. Louis

Treasurer: HAROLD S. SMITH, Chicago

Assistant Secretary: WILLIAM J. GIES, New York

Elective Regents of the College

WM. F. LASBY (44), Minneapolis

ALBERT L. MIDGLEY (42), Providence

E. G. MEISEL (43), Pittsburgh

J. CANNON BLACK (41), Chicago

E. W. SWINEHART (40), Baltimore

Editor: JOHN E. GURLEY, San Francisco

Associate Editor: Secretary of the College

Assistant Editor: Assistant Secretary of the College

Contributing Editors

GEORGE C. PAFFENBARGER (44), Washington, D. C.

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

THOMAS F. MCBRIDE (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

WALTER H. WRIGHT (40), Pittsburgh

MAURICE WILLIAM (40), New York

TEN YEARS OF FELLOWSHIP TRAINING FOR DENTISTS

A REPORT OF PROGRESS AT THE UNIVERSITY OF ROCHESTER

BASIL G. BIBBY, Ph.D., D.M.D., *Rochester, N. Y.*¹

This year completes the first decade of the operation of the Dental Fellowship Program at the School of Medicine and Dentistry of the University of Rochester.² It is an appropriate time, therefore, to report progress. Although those of us who have been associated with the program feel that it has achieved all that could be expected of it, others may not agree with this verdict. To help those interested to form their own reasoned judgment on this experiment in dental education, it appears worth while to review the activities to date.

The program has its roots in the concept which gave rise to the School of Medicine and Dentistry. This was a belief that the progress of dentistry depended upon an increased scientific consciousness, especially in the basic sciences fundamental to medicine. To fill this need, the original plans for the School of Medicine and Dentistry proposed to coordinate medical and dental courses in a single school, thus providing equal educational experience in the sciences on which medicine depends. It was hoped to accomplish this end without sacrificing the autonomy of dentistry to medicine. The original plan failed largely because of its inability to attract dental students sufficiently well qualified to work on a basis of absolute equality with the medical students. It was then decided to attempt to attain the original objectives by concentrating on graduate dental

¹The author is a Rockefeller Fellow in Dentistry at the University of Rochester, Rochester, N. Y. He has recently become Dean of Tufts College of Dentistry, Boston, Mass.

²Prepared especially for the *Journal* and supplementary to a former statement, published in the *Journal*, 2, 177; 1935 (April-July). See, also, "Editor's Addendum," *ibid*, 180-182.

education. This experimental step was aided in 1929 by a grant from the Rockefeller Foundation, and since 1936 has been supported by the Carnegie Corporation of New York.

Following some experience in dental research by Dr. Phillip Jay (now of the School of Dentistry, University of Michigan), the facilities of the School of Medicine and Dentistry were made available to dental graduates who desired to prepare themselves for teaching in dental schools or to gain experience in research. Accordingly, fellowships paying from \$1,500 to \$1,800 per annum were made available to dentists. This was done with the full realization that similar expenditures on scientists would be more productive of new scientific dental information. Such a procedure, however, would not have been in accord with the primary purpose of the program; namely, the development of scientifically minded dentists through the medium of the opportunity and experience obtainable in a research medical school. The continuous emphasis on the development of men for individual careers in dental science is the point which distinguishes the Rochester program from other experiments in dental education. Unless this point is fully appreciated, the program cannot be properly understood. In addition, it was reasoned that the development of dental scientists was a long range investment in dental science, because the interest of such men in dental education would be permanent, whereas that of non-dental scientists would last only until better opportunities appeared in other fields.

On appointment, the dental fellows were subjected to no well-defined program of training. Essentially, the educational scheme consisted of placing dental men in a position to associate with the faculty of the School of Medicine and Dentistry, to take advantage of its facilities, and to gain an insight into modern science education. In other words, dentists were provided with an opportunity to work out their own salvation under the favorable conditions supplied by a modern medical school. The atmosphere and associations of a research teaching institution were counted upon to stimulate an interest in investigation and advancement along scientific and educational lines. The research programs which these men were

expected to originate were counted upon not only to acquaint the fellows with research procedures, but also to serve as focusing points around which relevant scientific knowledge would be accumulated. Research, in other words, was designed to be an educational tool which, as an incidental product, would provide new scientific knowledge related to dentistry.

At first this opportunity failed to interest dental graduates. In a period of more than two years only four satisfactory candidates appeared. All of these were awarded fellowships. By August, 1931, a group of nine fellows had been brought together. These men were given laboratories and accepted as staff members in the Pathology, Bacteriology or other Departments of the Medical School so that they could bring their knowledge of these sciences up to date and gain an understanding of their bearing on dental problems.

No dental program existed when the first dental fellows took up their appointments, neither was there any senior dentist to whom they could look for guidance. The absence of any clinical program and the lack of any appreciation in dentistry of the purpose and possibilities of fellowship training made it difficult for the early appointees to feel that they were employing their time profitably. Thus placed, without organization, in a fully organized school in which the staff was primarily interested in the science of medicine, the dental fellows soon realized that an important experiment in dental education might stand or fall by their efforts. Thus they were constrained to evolve means of furthering their common interest, the cause of dentistry. The methods adopted were, naturally enough, those which were part of the educational method of the institution with which they were associated. First, informal discussions enabled the fellows to develop a definite concept of the value of fellowship training and its possible usefulness to themselves and dentistry.³ These informal meetings were soon supplemented by weekly seminars at which presentations were made on the educational, scientific, or sociological phases of dentistry. From these

³Some of the fruits of these discussions have been published under the title "The Value of the Research Fellowship in Dental Educational Education," *J. Am. Col. of Den.*, 2, 177; 1935 (April-July).

beginnings efforts were made to develop a definite group consciousness amongst the dental fellows. This had distinct value in maintaining the morale of the "guinea-pigs" of the dental experiment, who realized that, on the one hand, their dental background made them ineligible for careers in medical teaching and, on the other hand, the lack of interest, or suspicion, of dental educators made outlets into dental teaching seem unlikely. Unification of dental interest was helped, temporarily, by the organization of a group investigation on dental caries.

After a few years the integration of the dental activities was greatly aided by the appointment of Senior Dental Fellows, who accepted the administrative responsibilities relating to publications, appointments and budget. A number of dental activities were encouraged so that the interest of the dental fellows would remain centered in dentistry. These included participation at dental meetings, provision of study club courses for dentists, attempts to provide lecture series for dental internes at the Rochester Dental Dispensary, acceptance of some of the organizational responsibilities of the group in taking care of seminars, equipment, inventories, etc., cooperation in an abstract service and editorial collaboration with the International Association for Dental Research in the publication of the *Journal of Dental Research*.

The last two activities have a significance wider than that of the group interest. The abstract service has now, for a period of about five years, supplied the *Journal of the American Dental Association* with abstracts of scientific papers of dental interest from most of the medical publications of the world. The work on the *Journal of Dental Research* for about two years (representing, in terms of salaries for the time given which would otherwise have been normally available for fellowship activities, a contribution of several thousands of dollars) was helpful to the Association in continuing the *Journal* as a successful agency for the advancement of dental research.

Possible points of weakness in the opportunity offered by the fellowships were recognized early. These were principally, a loss

of contact with "practical" dental problems and clinical dentistry, and failure to provide experience in dental teaching. The separation from "practical" dentistry, however, was deemed to have advantages as well as disadvantages. It made it easier to organize laboratory investigations than clinical investigations, causing the fellows to concentrate on the former. As a result, they became thoroughly acquainted with that type of investigation and gained an understanding of the usefulness of a basic, or indirect, approach to the problems of dentistry. It also led to a realization that an improved type of clinical study was necessary if advantage was to be taken of laboratory findings. This, incidentally, reflects the experience of medicine where it has been found that advances in clinical procedures come principally from men who have had extensive periods of study or research in the basic sciences. In most instances, when time was divided between laboratory and clinic, the ingrained interests of recently graduated dentists in clinical pursuits was so great that their activities centered in the practical or clinical phases of dentistry, with the result that neither a scientifically critical attitude of mind nor an appreciation of well-controlled experimental procedures was attained. Therefore, because there were many places which offered advanced clinical training and few where comparable scientific opportunity existed, it seemed unwise to prejudice the latter by too many concessions to the clinical interests of the new fellow. Following the failure of several experiments in correlating clinical and laboratory activities to produce an appreciation of scientific methods, it is now required that all clinical appointees spend a full year as Research Fellows before taking up their clinical duties.

The need for teaching experience was met in part by providing frequent occasions for lecturing before seminars, classes, or dental meetings, and by offering criticism on such presentations. In addition, men who have advanced in their special branches of science take part in class and laboratory instruction of medical students. This has been found to have the greatest value as teaching experience not only in giving confidence to the instructor, but also in raising medical respect for dental activities.

The developments of the past few years have tended to confirm the value of the informal educational procedures indicated above. The doubts which existed among the dental fellows regarding the value of their activities have been replaced by an enthusiasm for the opportunity they enjoy and a conviction that the program is filling a need in dentistry. This feeling is continually being strengthened by the experiences of the former fellows who are now teaching in dental schools. The group members feel that the material sacrifices they are making in their fellowship pursuits are more than compensated by the satisfaction they derive from grappling with the intellectual challenge presented by the scientific and educational needs of dentistry. In a surprisingly short time, what is almost a tradition demanding service for the advancement of dental education has come into being. Preparation for the unknown future of dentistry has become a conscious purpose of the group. In keeping with such a concept the present program is regarded as liable to modification. At present, it functions in the following manner:

Fellows are appointed on the basis of achievement in dental school, professional experience, pre-dental training, but more particularly on their promise of becoming useful investigators and effective dental teachers, as indicated by ability and interest in dental advancement.

Since the supply of suitable candidates per dental fellowship has increased, the maximum stipend has been reduced to \$1,600 per annum, some of the fellows receiving only \$1,200, thus bringing the fellowships more in line with those offered in the medical and other sciences. The salary paid is decided on the basis of a man's previous training, his domestic responsibilities and usefulness to the group. On appointment, the fellows are given laboratories in various science departments in the medical school. Here they attend classes, participate in seminars, aid in the instruction of medical students, and receive instruction and criticism from the professor or other interested specialists. During tenure, the fellows are freed from routine duties, but are expected, without formal instruction, to bring their knowledge of their special fields up to date and to

acquire experiences and interests which will equip them for a more useful dental career.

In the Pre-clinical Science Departments of the medical school (Pathology, Bacteriology, etc.), dental fellows are accepted as members of the department and are helped to obtain the scientific background necessary to equip themselves for carrying on their own researches. They are encouraged to work on a problem with some bearing on dentistry and each one is guided in this by the various members of his science department. Senior members of the dental organization offer assistance on special problems and help to correlate the activities of the various dental fellows. They also discharge the administrative responsibilities for the dental group and do everything possible to aid the work of the individual members. In the interests of efficiency, education and inspiration, every effort is made to maintain a "dental group-consciousness" amongst the dental fellows in the various departments of the school. This is achieved by careful selection of men, by maintaining personal contacts, by means of weekly seminars, and by encouraging common research problems and group activities. As a result, a strong *esprit de corps* is maintained which results in the existence of a well-coordinated dental division, in spite of the apparent handicap resulting from its members being spread throughout various parts of a large building. Indeed, this geographical dispersion of the men in different departments has been found to have a distinct advantage in that a dental man in any department of the medical school has more points of contact with the other departments than do other individuals. In this way, the dental fellow has a special opportunity to keep himself in touch with what is going on throughout the school and to obtain advice and assistance in a variety of scientific fields. Hence, interdepartmental investigations are particularly prominent in the dental group. The cordial relationships which exist between the dental investigators and other members of the departments make it unnecessary to have definite or official working arrangements. The dental fellows have been able, because of special knowledge or skills, to contribute materially to the depart-

mental activities. Thus, in return for departmental privileges and assistance, the dental men have helped with class instruction, cooperated in research projects or contributed special methods or techniques in bacteriology, microchemistry or other specialties.

While the dental fellows are in the group, they are at liberty to work for graduate degrees or even to complete their requirements for bachelor's degrees. As far as possible, the obtaining of degrees is made subordinate to the carrying out of worth-while investigation. This end is helped by very liberal allowances made for research in the requirements for all graduate degrees.

While the importance of research activity is stressed, the mere production of new information is made secondary to its function in teaching research methods and providing a means of integrating various fields of science. Emphasis is placed on the development of men rather than on the development of research projects. Consequently, the fields of research are determined by the interests of the fellows and, as far as possible, placing men on pre-determined research problems is avoided. Most of the investigational programs develop into basic scientific problems, but, because the group is better fitted to do basic dental research than most other institutions, this is regarded as a desirable development. Such basic study is producing new methods and information which should bring the scientific aspects of dentistry abreast with those of other medical specialties. Only then, it is felt, will dental research attract the interest of scientists and the financial support it needs if it is to meet the challenge of increasing dental disease.

That the fellowship experience has contributed a great deal to those who have availed themselves of it, has been repeatedly reaffirmed by former dental fellows. It has developed in them an interest and understanding of research and an appreciation of the educational and scientific needs of dentistry. Most of the fellows have continued to be interested in the investigational and educational side of dentistry. On the completion of their fellowship tenure, most of them have taken positions on dental faculties and a number have instigated research programs in their schools. In

general, the fellows have been given a broader knowledge of the dental sciences. They, in turn, have helped in the integration of the different scientific fields as they relate to dentistry. They have, of course, obtained special knowledge in their fields of specialization. Above all, they have come to appreciate the value of research as an educational tool and have been able to gain teaching and administrative experience. They have developed something in the nature of an educational philosophy.

In regard to the general value of the experiment, there is no doubt that the type of training offered has filled a great need in dentistry, and because in its early stages the activities were in an experimental stage, it is only now becoming really effective. It has demonstrated the ability of dentists with diverse and sometimes inadequate training to adapt themselves and to fit into the atmosphere of a research medical school, and to carry on scientific investigations equal in standard to those of their medical confreres. Thus, it has helped to provide a foundation of fundamental scientific fact and method upon which future exact dental research can be built. It has indicated that there are certain advantages in having investigations of mouth diseases in the hands of dentists. By giving dentists confidence in their own research ability and introducing them to scientific and educational opportunities of dentistry, it has pointed to a way of keeping dentists interested in the educational and scientific problems of dentistry in the face of the allurements of medicine and other scientific fields.

Indications that the fellowship plan is becoming recognized in dentistry appears in the vastly increased number of applications for fellowships and a steady improvement in the standard of the applicants. More significant than this is the fact that several dental schools are sending faculty members for periods of training and that the present output of fellows does not seem to be large enough to fill the teaching positions which are available. Some measure of the contribution which the fellowship experiment at Rochester has made to dental science and education is found in over a hundred research publications in a variety of dental and scientific journals.

More important than this is the appointment of twenty former fellows to teaching positions in twelve dental schools. Tabulations presenting details and summaries of the preliminary training, fellowship activities and subsequent appointments of the dental fellows who have been associated with the Rochester group are appended.

LIST OF DENTAL SCHOOLS FROM WHICH DENTAL FELLOWS GRADUATED

<i>Schools</i>	<i>Number</i>
Ohio State	4
Pennsylvania	3
Maryland	3
Harvard	3
New Zealand	2
Dalhousie	2
Pittsburgh	2
Washington	2
Illinois	2
Indiana	2
Tulane	1
Atlanta Southern	1
Iowa	1
Georgetown	1
Creighton	1
Loyola	2
McGill	1
Tufts	1
Oslo (Norway)	1
Toronto	1
20 schools	36 Fellows

SUMMARY OF DEPARTMENTAL DISTRIBUTION AND GRADUATE DEGREES

<i>Department</i>	<i>No. of Fellows</i>	<i>No. of Graduate Degrees</i>
Pathology	11	1
Biochemistry	6	4
Bacteriology	5	2
Anatomy	5	3
Physiology	1	---
Nutrition	1	1
Oral Surgery	5	---
Unattached	3	---
TOTAL	37	11

(Ph.D., 2; M.S., 9)

SUMMARY OF POST-FELLOWSHIP ACTIVITIES OF DENTAL FELLOWS

A. FELLOWS

<i>Affiliation</i>	<i>On Termination of Fellowship</i>	<i>At Present</i>
Medical College of Virginia	3	3
University of Maryland	3	3
University of Louisville	---	2
University of Rochester	4	2
Washington University	3	3
University of Illinois	1	1
DeMontmorency (Punjab)	1	1
Tufts College	1	1
University of Pennsylvania	1	1
Indiana University	1	1
Louisiana State	1	---
Georgetown University	1	---
New York State Department of Public Health ..	1	1
Practice	2	4
TOTAL	23	23

B. CLINICAL FELLOWS

Practice	4	4
----------------	---	---

FORMER DENTAL FELLOWS (UNIVERSITY OF ROCHESTER, 1930-1939)

<i>Name</i>	<i>Address</i>	<i>Universities Attended</i>	<i>Degrees Dates</i>	<i>Fellowship Tenure</i>	<i>Department</i>	<i>Subsequent Positions</i>	<i>Place</i>
H. J. Sedwick	Washington St. Titusville, Pa.	U. of Pittsburgh Columbia Univ.	D.D.S., '16	July Dec. 1930-1933	Anatomy	Assoc. in Pediatrics In Practice	U. of Roch. Med.; Titusville, Pa.
B. G. Bibby	Tufts Dental, Boston, Mass.	U. of Otago, N. Z. U. of Rochester Tufts School of Dentistry	B.D.S., '27 Ph.D., '35 D.M.D., '39	Aug. July 1930-1933	Bacteriology	Sr. Dental Fellow Asst. Prof. Dent. Prof. of Bact. Dean	U. of Rochester, Med. and Dent. Tufts Med. and Dent. Tufts Dental College
E. C. Dobbs	Dental School, U. of Maryland, Baltimore, Md.	U. of Maryland	D.D.S., '29	Sept. Oct. 1930-1932	Biochemistry	Instr. in Pharmac. Assist. Prof. Pharmacology	Dental School, U. of Maryland
G. VanHysen	Dental School, U. of Louisville, Ky.	U. of Pennsylvania	D.D.S., '25	Oct. Jan. 1930-1936	Pathology	Instr. in Anatomy Assoc. Prof. Oral Pathology	Dental School, Med. Coll. of Va.; U. of Louisville
W. McL. Davis	401 Exchange Bldg., Orlando, Fla.	Atlanta Southern Dental College	D.D.S., '28	May July 1931-1933	Pathology	Instr. Exodontia Practice— (specialized)	Georgetown Univ. Orlando, Fla.
H. C. Hodge	School of Med. and Dentistry, Rochester, N. Y.	Ill. Wesleyan U. of Iowa U. of Iowa	B.S., '25 M.S., '27 Ph.D., '30	June July 1931-1933	Biochemistry	Sr. Dent. Fellow Asst. Prof. Dent. Asst. Prof. Pharm.	U. of Rochester Med. and Dent.
H. T. Knighton	Medical School, U. of Louisville, Ky.	Tulane	D.D.S., '26	Sept. Dec. 1931-1933	Bacteriology	Instr. Oper. Dent. Asst. Prof. Bact. Assoc. Prof. Bact.	Dent. School, Med. Coll. of Va.; Med. School, U. of Louisville
C. D. M. Day	DeMontmorency Dental College, Lahore, India	New Zealand Harvard U. of Rochester	B.D.S., '22 D.M.D., '27 M.S., '34	Jan. Dec. 1932-1934	Nutrition	Principal and Dean	DeMontmorency Dental College, Lahore, India
O. W. Clough	Med. Coll. of Virginia, Richmond, Va.	Dalhousie Dalhousie U. of Rochester	B.S., '29 D.D.S., '32 M.S., '34	July Oct. 1932-1934	Bacteriology	In Practice Instr. Oper. Dent.	Inverness, N. Z. Dental School, Med. Coll. of Va.

FORMER DENTAL FELLOWS (UNIVERSITY OF ROCHESTER, 1930-1939) *Continued*

<i>Name</i>	<i>Address</i>	<i>Universities Attended</i>	<i>Degrees Dates</i>	<i>Fellowship Tenure</i>	<i>Department</i>	<i>Subsequent Positions</i>	<i>Place</i>
R. E. Brawley	2301 Salem Ave., Dayton, Ohio	Ohio State Ohio State U. of Rochester	B.S., '28 D.D.S., '31 M.S., '34	Sept. Aug. 1932-1934	Biochemistry	Fellow in Pediatrics In Practice	U. of Roch. Med.; Dayton, Ohio
W. E. Taylor	Saranac Lake, N. Y.	Dalhousie	D.D.S., '32	June Oct. 1933-1934	Bacteriology	In Practice	Saranac Lake, N. Y.
A. D. Brashear	Med. Coll. of Virginia, Richmond, Va.	Ohio State Southern Coll. U. of Rochester U. of Rochester	D.D.S., '32 B.S., '34 A.B., '34 M.S., '35	July Aug. 1933-1935	Anatomy	Instr. in Anatomy Asst. Prof. Anatomy	Medical School La. State U.; Med. Coll., Va. College of Dentistry
M. K. Hine	U. of Illinois School of Dentistry, Chicago, Ill.	Illinois	D.D.S., '30 M.S., '32	Sept. Sept. 1934-1936	Bacteriology	Assoc. in Therapeutics Assoc. Prof. Therapeutics	College of Dentistry, U. of Illinois
H. B. G. Robinson	Dental School, Washington U., St. Louis, Mo.	Pennsylvania U. of Rochester	D.D.S., '34 M.S., '36	Sept. Aug. 1934-1937	Pathology	Asst. Prof. in Oral Pathology	School of Dentistry, Washington U.
M. W. McCrear	Dental School, U. of Maryland, Baltimore, Md.	Ohio State U. of Rochester	D.D.S., '35 M.S., '37	Aug. Sept. 1935-1937	Anatomy	Asst. in Histology Asst. Prof. of Histology	School of Dentistry, U. of Maryland
J. F. Hall	Dental School, Med. Coll. of Va., Richmond	Pittsburgh Pittsburgh	D.D.S., '34 B.S., '35	Oct. Feb. 1935-1937	Pathology	Instr. Exodontia Assoc. Prof. Exodontia	College of Dentistry, Med. Coll. of Va.
W. E. Hahn	Dental School, U. of Maryland Baltimore, Md.	Maryland U. of Rochester U. of Rochester	D.D.S., '31 A.B., '39 M.S., '39	Sept. July 1937-1939	Anatomy	Asst. Prof. Anatomy	School of Dentistry, U. of Maryland
E. S. Hamppe	Dental School, Washington U., St. Louis, Mo.	Washington U.	D.D.S., '36	Sept. Aug. 1937-1938	Pathology	Instr. Pathology and Bacteriology	School of Dentistry, Washington U.

FORMER DENTAL FELLOWS (UNIVERSITY OF ROCHESTER, 1930-1939) *Continued*

<i>Name</i>	<i>Address</i>	<i>Universities Attended</i>	<i>Degrees Dates</i>	<i>Fellowship Tenure</i>	<i>Department</i>	<i>Subsequent Positions</i>	<i>Place</i>
*F. A. Allen	First National Bank Bldg., Portsmouth, Ohio	Ohio State Ohio State	A.B., '37 D.D.S., '37	Oct. July 1937-1939	Bacteriology	In Practice	Portsmouth, Ohio
L. H. Garrison	Dental School, Washington U., St. Louis, Mo.	Washington U. U. of Rochester	D.D.S., '37 A.B., '39	Oct. Aug. 1937-1939	Pathology	Carnegie Dental Fellow	School of Dentistry, Washington U.
*B. J. Frey	4368 Milwaukee Ave. N., Chicago, Ill.	Illinois Illinois	B.S., '34 D.D.S., '36	Nov. Aug. 1937-1939	Anatomy	In Practice	Chicago, Ill.
*T. C. Sample	Penfield, N. Y.	Houghton College McGill	B.S., '33 D.D.S., '37	June June 1937-1939	Oral Surgery	In Practice	Penfield, N. Y.
V. D. Cheyne	Indianapolis, Ind.	Iowa U. of Rochester	D.D.S., '33 A.B., '38	March Sept. 1937-1940	Pathology	Assoc. Professor of Pathology	College of Dentistry, U. of Indiana
M. L. Deakins	Philadelphia, Pa.	Creighton Iowa U. of Rochester	B.S., '29 D.D.S., '30 M.S., '32 Ph.D., '40	Oct. Sept. 1937-1940	Biochemistry	Instructor in Bacteriology	Dental School, U. of Pennsylvania
S. B. Finn	Albany, N. Y.	Ohio State Harvard U. of Rochester	A.B., '30 D.M.D., '34 M.S., '40	July July 1939-1940	Biochemistry	Dental Health Officer	New York State Dept. of Health
*W. J. Manion	Baltimore, Md.	Loyola	D.D.S., '39	July July 1939-1940	Oral Surgery	Interne	Johns Hopkins Hospital

* Clinical Fellow.

PRESENT DENTAL FELLOWS (UNIVERSITY OF ROCHESTER, SEPT., 1940)

<i>Fellow</i>	<i>Universities Attended</i>	<i>Degrees and Dates</i>	<i>Fellowship Appointment</i>	<i>Department</i>
J. F. Volker	Rutgers Indiana U. of Rochester	D.D.S., '36 A.B., '38, M.S., '39	August, 1937 Senior Fellow, 1940	Biochemistry
R. F. Sognnaes	Oslo, Norway Leipzig Oslo	Examen Artium, '31 Examen Physicum, '32 Dent. Grad., '36	July, 1939 Senior Fellow, 1940	Pathology
†B. P. Kearney	Toronto	D.D.S., '36 L.D.S., '36	August, 1939	Physiology
N. S. Simmons	City College Harvard	A.B., '39 D.M.D., '39	September, 1939	Pathology
*A. F. Fisher	Pennsylvania	D.D.S., '39	July, 1939	Oral Surgery
*E. C. Woods	Dartmouth Harvard	D.M.D., '40	July, 1940	Oral Surgery
J. T. Ginn	North Carolina Louisiana State Loyola	B.S., '37 D.D.S., '39	July, 1940	Pathology
A. H. Pearson	Clark University Tufts College	D.M.D., '39	July, 1940	Unattached
B. S. McCauley	U. of Maryland	D.D.S., '35	August, 1940	Unattached
*J. F. Striegel	North Carolina Buffalo U. Georgetown	B.A., '35 M.A., '36 D.D.S., '40	August, 1940	Pathology
W. F. Koss	Butler Indiana	B.A., '36 D.D.S., '40	August, 1940	Unattached

†On leave of absence with the Canadian Army. *Clinical Fellow.

DENTAL EDUCATION IN AMERICA: AN HISTORICAL SKETCH

HARRY BEAR, D.D.S.,¹ *Richmond, Virginia*

The centenary of a profession, crowned with many noteworthy achievements, marks a significant milestone in its history. We are on the eve of the hundredth anniversary of the beginning of formal education in dentistry. The founding of the Baltimore College of Dental Surgery (1840), the publication of the first dental periodical (1839), *The American Journal of Dental Science*, and the organization of the American Society of Dental Surgeons (1840), are events of profound significance, marking the beginning of a profession which has just celebrated its one hundredth birthday at a convention in Baltimore in March, 1940.

During its growth as a profession, the experiences of dentistry have been many and varied. Dental practice had to bridge the gap from a craft to a professional entity. The experiences of medical practice served as moral influences to guide the ethical relationships and social obligations of this new-born profession. In the beginning there existed a certain degree of secrecy regarding the theory and practice of the profession both in the schools and among the practitioners. This persisted for many years in spite of the efforts of many leaders to institute a more cordial relationship and freer exchange of ideas in the profession. With the general progress in dental education and practice there developed a spirit of cooperation; secrecy and competition were gradually eliminated.

The greatest single factor in its professional development was the provision for autonomous formal education. In writing of the founding of the first dental school, the Baltimore College of Dental Surgery, in 1840, Chapin A. Harris recorded in his *Dictionary of Dental Science* (1849) that ". . . the legislature of Maryland chartered a college with four professorships, for the purpose of

¹President, American Association of Dental Schools, 1939-40, and Dean, Medical College of Virginia, School of Dentistry.

affording more ample facilities of instruction in the branches of knowledge necessary to the education of an accomplished dentist, than could be furnished by any private teacher, and thus securing to the public a sure guaranty against the impositions of empiricism. The object of this institution is to give those who receive its instructions, a thorough medico-dental education, so that when they enter upon the active duties of the profession, they may be enabled to practice it, not alone as a mere mechanical art, but upon sound scientific principles, as a regular branch of medicine."

The number of dental schools increased slowly at first. Beginning about 1880, schools were founded in rapid succession; the estimated maximum number of 60 dental schools in the United States was reached in 1902.

Many of the earlier schools flourished largely because of the opportunity afforded at that time for personal profit. In spite of the growth of the profession and of education in general, a situation soon developed whereby standards for admission and graduation were lowered instead of gradually advanced. To curb this unfavorable trend, the National Association of Dental Faculties was organized in 1884 to "bring about the adoption of a uniform standard of graduation." This organization concerned itself primarily with administration. The American Institute of Dental Teachers was founded in 1893 to promote and coordinate efforts toward better teaching and methods of instruction. A number of the dental schools affiliated with universities became dissatisfied with the policies of the National Association of Dental Faculties and withdrew, subsequently forming the Dental Faculties Association of American Universities in 1908. These three organizations and the Canadian Dental Faculties Association (founded in 1920) continued their separate existences until 1923, each earnestly attempting to influence and direct the progress of dental education.

Concurrent with the development of the schools, the various states enacted laws regulating the practice of dentistry. There were considerable variations in these requirements and there were also many differences among the schools. In an effort to obviate these

misunderstandings and also to encourage higher scholastic standards, the Dental Educational Council of America was organized in 1909. The Council had a salutary effect upon dental education and by virtue of its periodic inspection of schools sought to improve the curriculum, elevate standards, and create a friendlier spirit of cooperation among the schools. Its system of accreditation was largely responsible for eliminating the proprietary schools and enhancing the standards of the other schools.

From 1840 to 1897 the admission requirement for the study of dentistry was that the applicant have a knowledge of the "rudiments of an English education." In 1884 the course in dentistry was advanced from two sessions of three months each to a two-year course of five months each. This was increased to three years of five months each in 1891, and in 1899 the sessions were increased to seven months each. The four-year course, based upon the requirement of high school graduation for entrance, went into effect in all the colleges in this country in 1917. The minimum admission requirement of one year of predental college education became effective in 1924; the minimum of two years of predental education was inaugurated in 1937.

Of important historical interest in the progress of dental education was the monumental study of dental schools by Dr. William J. Gies. This was sponsored by the Carnegie Foundation for the Advancement of Teaching. The report of this study was published in 1926 in the foundation's bulletin number 19, *Dental Education in the United States and Canada*. Though not widely accepted at that time, this report has now come to be recognized as a most valuable contribution to the progress of dental education. Largely as a result of this report the poorly qualified schools have been eliminated, others have been strengthened; and the standards of dental education as a whole have been materially advanced.

Under the guiding genius of Dr. William J. Gies, the American Association of Dental Schools was formed in 1923 by the amalgamation of the American Institute of Dental Teachers, Canadian Dental Faculties' Association, National Association of Dental Facul-

ties, and the Dental Faculties' Association of American Universities. The Constitution and By-Laws set forth the objectives of this association as follows: "The American Association of Dental Schools has been established to facilitate intercourse and conference among *teachers* of the dental science and arts in North America; to promote advancement of *teaching* and research in American schools of dentistry; to encourage thorough study and discussion of the needs and problems of dental education; to improve public understanding and appreciation of the quality and value of dentistry; and to maintain dental education in full accord with the highest requirements of professional education in the public service." This association has endeavored to meet all of these provisions to the fullest extent. The character of its annual meetings has been consistent with the general trends in education and with the changing social order.

Supported by a grant from the Carnegie Corporation of New York, the curriculum survey committee of the American Association of Dental Schools recently made a study of the curricula of the member schools. This report, *A Course of Study in Dentistry*, was published in 1935. The final report and the discussions at annual meetings preceding its publication have served a very useful purpose in assisting the faculties in revising the courses of study in dental schools. The association is now engaged in a study of teaching methods, and it is expected that a report will be completed in 1940.

It is recognized that there has been a gradual increase in the public appreciation of dental services. There were but 1700 dentists in the United States in 1840 or approximately one dentist to every 10,000 inhabitants. It is estimated that there are now 60,000 practicing dentists in this country, or one dentist to every 2,000 persons. This is indeed an unusual attainment for so short a period of time and one that reflects credit upon the democratic system and its ideal of making special services available to the average man.

It is a relatively easy task for the historian to record the achievements of the past, but it requires a prophet to foretell the future. Yet one may venture into the realm of the unseen and predict what

is to come. We are in a transitory era. We cannot remain aloof from the present educational and social changes which are taking place. The colleges must play an important role; in fact, they should be the guiding factor in the prospective development of the profession. The teachers constituting the dental faculties today are men with ideals which lead them on to greater service and usefulness. They usually have limited incomes, yet they are fired with the ambition to develop good dentists and to contribute to the advancement of professional knowledge and leadership.

While the profession has made great strides in its restorative technic, it has also emphasized its preventive and other biologic phases. Dental research is expanding its sphere of activities and it is to be hoped that this will result in continued noteworthy contributions. In this connection it is desirable that the amount of clinical medicine taught to dental students be increased. The schools should also concern themselves in providing for public health courses. These are essential in order to develop a more profound understanding of medico-dental relations. Provision should be made to improve teaching methods and to provide adequate facilities for the training of better qualified teachers. It is also important that the schools develop a program of post-graduate study. This should be done to meet the demands for the training of specialists and to provide extension courses for the practitioners at large. We must also acknowledge that there is a changing social order. The dental schools must adjust themselves accordingly.

THE DENTAL STUDENT AND HIS LITERATURE¹

ALVIN W. BRYAN, D.D.S., *Iowa City, Iowa, President*

For the past few years an intense interest in the subject of the standards and control of dental journalism has been apparent. Thinking men of the profession have surveyed the situation and, looking ahead, have envisioned the day when dental journalism would be completely controlled by the profession itself. A few have taken the brunt of the conflict which has been and will be necessary to bring about this much desired result. Certain personal interests outside the profession have done much to retard the progress of the program and, unfortunately, some within the profession have not been cooperative. But even though retarded, progress has been made and indications are hopeful for the ultimate attainment of the goal.

Too often, when we in organized dentistry consider our problems, we are prone to leave out of our deliberations that group which is preparing itself for the dental profession. We forget that in the student groups lie the future leaders of dentistry—practitioners, examiners, research men, teachers, writers, and editors. This article is prompted because of a special interest in undergraduate dental education, and an intimate contact with some of the problems of students and their literature.

What are some of the positive influences that we may create that will be helpful to the dental student in forming his tastes in literature; and what are some of the negative influences that we may help him to avoid? It seems to me that one of the finest steps that has ever been taken by the American Dental Association was the establishment of the junior membership in that organization. It has done several things to help materially in the training of students to take their places in organized dentistry. Previously they stood aloof, feeling that there was a closed corporation which had no interest in them and in which they had no privileges until the time came for

¹Prepared especially for the Journal.

them to practice. And, not many years ago, it was a fact that some groups in organized dentistry not only had no interest in the dental student, but were clamoring that the schools should be closed until there was greater demand for dental work. At the same time, many practitioners were accusing the dental schools of failing to give the students training in the proper attitude toward professional practice. As the economic situation has gradually improved, these attitudes have changed and doubtless the junior membership has had its effect in the improvement. The student now feels that he is a part of the profession.

Another beneficial effect of the student membership in the American Dental Association has been the stimulation of an interest in good literature. Receiving his own copy of the *Journal*, it is available in his study room and there is much more likelihood of his reading it than if he had only limited access to it in the library. Since the majority of the students are members, it makes it possible for instructors to make reading assignments in the *Journal* and this offers further stimulation for reading other articles. Having had a taste of professional literature the tendency is for the students to read more extensively in other periodicals that are furnished in the school library.

Another positive force in developing the students' attitudes toward the right literature is by furnishing contacts with men in the profession who are working in that field. Special lectures, at least to seniors, by the editor of the official state bulletin or journal, arouse an interest that cannot be duplicated by a regular staff member. If these lectures include a presentation of the subject of professional control of dental journalism a good seed has been sown.

An insidious negative influence upon students in developing their attitudes toward literature is the distribution to them of the throw-away type of publication and magazines purportedly designed for the students' exclusive use. These magazines have no professional sponsorship and obviously are published for one purpose only—the income from commercial sources.

At the meeting of the American Association of Dental Schools held in 1935, a resolution was presented which emphasized the fact

that one of the important functions of a dental educational institution is the development of the proper attitude of the students toward professional literature and journalism. It included the statement that free distribution of commercial and proprietary dental publications to the students develops the wrong psychological attitude toward dental literature, and that the articles and advertisements which they contain often present erroneous and distorted concepts of professional conduct. It was resolved that distribution of such publications to dental students should be discouraged by the administrative officers of the schools and that official lists of students would not be furnished to the publishers. Needless to say, it is impossible to prevent these publications from reaching the students. Supply houses distribute them and in some instances the dental students themselves will furnish class lists. It is impossible, also, to prevent the students from sending contributions to them, but, as we arouse their interests in the better literature, this problem will be solved.

To show how vicious some of these publications may be, an incident is cited. A few years ago a dental student who, because of a real or imaginary grievance wished to vent his spite on one of his teachers, wrote a sharply critical article about the instructor, the department, and the school. It was accepted for publication in a magazine which claims to be published as an outlet for student literary efforts. Surely, this kind of publication cannot be a helpful influence in student training.

How may these negative forces be met? Obviously, the solution rests largely with the schools. If it is possible to have a student publication in the school, an outlet to some of the students may be given for their articles. Lacking that, a course of theme writing as a requisite for credit in certain courses will develop the students' writing ability and do it efficiently, because his articles are criticized and corrected. The so-called student magazines accept them as they are sent and the article may be full of grammatical errors as well as inaccuracies of data.

In those states in which dental colleges are located the organized

society of that state may do much to stimulate good habits in literature by the students and encourage them in writing. For several years one of the societies offered a cash reward to the student who submitted the best essay on some subject having to do with dental history or organization. It was left to the faculty to select the best four or five papers and a committee from the society made the final selection for the award. The winner was invited to be present at the annual meeting of the society and the award was made before a general session. This method creates not only a desire to write but makes the students feel that organized dentistry is taking an interest in them. At the same time, in preparing their papers, they must read the best dental literature and good reading habits are formed.

I have mentioned the part that the schools and organized dentistry may play in solving the problem of the dental students' attitude toward professional literature. Faculties are doing more each year in this field, and an increasing interest by professional groups in the oncoming generation of dentists will result in much good.

DENTISTRY IN A SCIENTIFIC ERA¹

JOHN E. GURLEY, D.D.S., *San Francisco, California*

The subject, "Dentistry in a Scientific Era" carries with it two questions which should in the beginning be carefully considered: What is Dentistry? and, What is meant by the Scientific Era, or at least, When did it begin? Having arrived at a satisfactory understanding of the meaning of dentistry and its function, and of the time of beginning of the "Scientific Era," including reference to any other "era" influence that may have affected dentistry, we can turn then, to the effect of the "Scientific Era" upon its practice.

As mathematics is called "The Queen of Sciences" for the reason that no study can be pursued to any extent without the involvement of mathematics, so too, not much progress can be made in any field without reference to the dictionary. Turning then to this authority, one finds the following definition of the term, Dentistry: "The art or profession of a dentist." and a dentist is: "One whose profession it is to treat diseases of the teeth, and to make and insert artificial teeth."² Again, dentistry has been defined as: "The science and art which aims at the preservation of the natural teeth in a state of health and beauty. Its highest office is to prevent disease or deformity, but where either of these has already occurred it is then its function to remedy the evil and check its further progress."³

Here one finds himself somewhat in the condition of the child with his proverbial "first words" to be looked up in the dictionary. When one has been found, reference must be made to another in order to understand the first, so what's the use? A new term has been introduced. A profession, what is it? Webster says: "The occupation, if not purely commercial, mechanical, agricultural, or the

¹Psi Omega Fraternity, Gamma Omicron Chapter, Fellowship Lecture. Being initial lecture delivered before faculty and student body, College of Dentistry, Medical College of Virginia, March 8, 1940.

²Webster's *New International Dictionary*.

³Johnson, C. N., *Text-Book of Operative Dentistry*, P. Blakiston's Son & Co., Philadelphia, 1909, p. XI, Introduction.

like, to which one devotes one's self." Funk and Wagnalls *New Standard Dictionary* gives the following: "An occupation that properly involves a liberal education or its equivalent, and mental, rather than manual labor." A. M. Carr-Saunders⁴ has developed a little different, but more specific definition, as follows: "An occupation based upon specialized intellectual study and training, the purpose of which is to supply skilled service or advice to others for a definite fee or salary."

In her thesis for a master's degree at the University of Chicago, Dorothy Fahs Beck⁵ wrote under the title, "The Development of a Profession," and selected dentistry as her theme. She proposed the following statement as one meeting the requirements of professional status: "The term profession may be regarded as an honorary title awarded informally by society to occupations conforming to certain standards. These standards may be roughly outlined as follows: (1) the occupation must require high skill and intellectual effort and an extended educational preparation, both intensive and comprehensive in nature; (2) the occupation must involve primarily the exchange of service or advice for a fee or salary, rather than the sale of material products for profit; and (3) the occupation must have achieved in public opinion, traditions of group dignity, intellectual superiority, self-control, and resistance to unscrupulous commercialism."

From these it may be seen that dentistry is a profession, and conversely, that one of the professions is dentistry. All the professions involve the educational process, or an education is the fundamental requirement of the professional man or woman. It would be interesting and one is even tempted to digress and discuss the subject of education in its broad application, in the development of the understanding and concomitantly, the life of the individual. This is a subject of no mean interest, especially when one stops to contemplate that he has to live, whether a dentist or in whatever vocation. Probably there is no more important question to be answered

⁴Source not known.

⁵Personal communication.

than, "What is life?" Upon the answer to it depends to a great degree, one's success or failure in life.

Out of an interminable number of definitions or suggestions as to what education may be, this may be projected as desirable in any line of thought, and particularly is it applicable to our present consideration: "Education is the introduction of control into experience."⁶

This principle of control is necessary in any of the many situations in which we find ourselves, whether socially, professionally, in business, in any of our many relationships and even in the matter of one's own self, in his daily living. But of how great value is this control of the *animate* over the *inanimate* and even of the *animate* over the *animate*, in the conduct of a professional practice.

Not so many years ago one was not educated unless he had a thorough understanding of the old languages. Nor are they without their value today. The truest truth, if it may be so stated, comes through being able to read as it was then written, to read men's speeches in their own language, and to read the living history as it was then lived. Much is lost through interpretation and many errors have, no doubt, crept in. It is felt in many circles today that we are losing control of our own language and perhaps this is due to some extent, to our lack of knowledge of that from which our language was derived. It is claimed that Americans are too utilitarian. Our educational process has developed a body of people who can "do things" and having done so much we have allowed ourselves to become over-commercialized. We are charged with having lost too much culture. We should deny the charge and admonish a brief waiting period until a true balance can be struck.

It is within the time of many of us yet actively involved in this educational process that appeal was made to administrators and professors of colleges of letters and science to reduce their requirements in Latin and Greek and to substitute the sciences. What impostors were they who dared to make such request! Reduction in

⁶Snowden, James H., "The Meaning of Education", The Abbington Press, New York, 1921, p. 16.

these requirements would mean reduction in culture and there would be no more educated men and women. But the scientists were obstinate, they held to their demand, and we of the now called health professions, knew well our need of chemistry and physics, of the biological sciences, anatomy, physiology, embryology, histology, pathology, bacteriology, materia medica, therapeutics, and of the new sciences which would and have now developed from these. We may have been a little more utilitarian than cultural at the time, but we were in a position where we needed definite knowledge. The years have demonstrated a great acquisition of knowledge.

There is another fact about this question. Studying the languages and the history of the people, we do get an account of their acts and these have no little value sociologically and perhaps otherwise, in influencing our own conduct. But we have plenty of "foolishness" within our own time—can't we learn from that? If we study natural phenomena, both of the animate and the inanimate we get the incontrovertible facts, and progress can be made. But more than that, my own interest in science goes back into my faith in the world, the God who made it and man who is charged to subdue it. How can we subdue it, if we do not understand it? And since man was charged to subdue it, isn't it quite likely that he will be fulfilling a postulate which he dare not obviate? Also, in fulfilling it, isn't it quite likely that he will find a better development of his own life and at the same time make a greater contribution to all of society? In his understanding of life and of living and in his subjugation of that which is to be subdued by him, surely he will not be without culture. . . . "Be fruitful, and multiply, and replenish the earth, and subdue it: and have dominion over the fish of the sea, and over the fowl of the air, and over every living thing that moveth upon the earth."⁷

It is not to be inferred, however, that the scientific era is beginning just at this time or that it began only recently, for the sciences have been taught, as is easily detected from the name, College of Letters and Science, for many years. It is simply the case that no

⁷"Genesis", 1:28

great emphasis was laid upon them and no particular utilitarian application of them had been made. Look at chemistry in the industries today. Infinitely more money is being spent on research in the industries than in the Universities and many products of therapeutic value are being thereby discovered.

Considering the extreme developments of the past quarter of a century, one may be inclined to believe that the scientific era is of recent birth, and especially is this likely to be thought as regards both medicine and dentistry. In part, this is true. However, some kind of dental treatment was administered as early as the Etruscan Era, and some kinds of simple observations and deductions were made. Greater progress was made in industrial fields, for this was easily to be seen as within the scope of nature or natural phenomena and their study was made through natural science. But no one thought of disease or of the results of disease as falling within the scope of natural science. Treatment of toothache among the ancient Greeks consisted in fasting, praying to one or more of their gods and of sleight-of-hand tricks.

In 460-355, B. C., Hippocrates reorganized both medicine and dentistry. Probably the only dentistry practiced was the extraction of loose teeth. He did advocate clean teeth and recommended a powder after the following formula:

One Charmed Rabbit's Head,
Three Charmed Mice
(Grind into a Powder).⁸

Cornelius Celsus, at the time of Christ, in his work *Re de Medica*, devoted certain articles to the pathology and therapy of the teeth. Claudius Galenus, 131-200, A. D., has been called "a true investigator of the combined medical and dental sciences." In these years Galen prescribed many mouth-washes and powders. The Arabians, through Abulkasa, gave dentistry a method of checking toothache

⁸Preiswerk, Gustaf, M.D., Ph.D., University of Basel, Switzerland, translated by Warren, George W., Prof. of Principles and Practice of Operative Dentistry, Pennsylvania College of Dental Surgery; "Atlas and Text-Book of Dentistry and Diseases of the Mouth", W. B. Saunders Co., 1909, p. 18.

by means of a hot iron, which probably cauterized the pulp. He also used arsenic for destruction of the pulp. At the end of the 16th century, Ryff, a physician, wrote a book in three parts, one devoted to the eyes, another to the teeth, and the third to the teeth of suckling infants. He discoursed upon the effects of "decayed teeth on the general health of the organism." He urged people to keep their teeth clean. Eustachius, at this same time, made some studies in embryology and anatomy of the teeth. Highmore, in 1613-1684, discovered that the superior maxilla was hollow. Hence the name, The Antrum of Highmore. Leeuwenhoek, in 1632-1723, with an improved microscope made some progress in dental histology. In 1726-28, the French dentist, Pierre Fauchard "laid the foundation for anatomy, physiology, pathology, and therapy of the mouth and teeth." He became the father of modern dentistry. Many others during these early years made contributions, minor in character, but altogether they represent the early years of scientific study in dentistry.⁹⁻¹⁰

We may pass on immediately now to the year 1839, which is one of special import to us at this time—we are celebrating the 100th anniversary of the opening of the first dental school in the world, and which school was opened in the United States of America.

The entire period prior to the present day may for convenience be roughly divided into periods as follows: prior to 1839, 1839 to 1900, 1900 to 1925, 1925 to 1940. Prior to 1839 any one who so desired might operate upon the teeth. The barber had an equipment which arranged the individual conveniently, so he merely added the function of dentist to that of his original trade. The jeweler worked with fine metals, did that finer mechanical work, so why couldn't he manufacture jewelry for the mouth? He did. Then men began to limit their labors for livelihood to this work, and thus the dentist was born. Presently men came to realize that they had a

⁹Ibid., pp. 19-21.

¹⁰Wedl, Carl, M.D., Professor of Histology, University of Vienna, translated by W. E. Boardman, M. D., with notes by T. B. Hitchcock, M.D., D.M.D., Professor of Dental Pathology and Therapeutics, Harvard University, Lindsay and Blakiston, Philadelphia, 1872, p. 2.

responsibility, of greater significance than many, if not most vocations, imposed, and as they became more intimately associated with the medical fraternity, they began to assume a professional air. The method of learning was through praeceptors and so after a period of service to another, one more added himself to the growing number of dentists. Here and there was one with an inquisitive or investigative nature, but there was no organized study in any degree.

The second period, 1839-1900, witnessed many changes and developments. The number practicing dentistry had grown at a considerable pace and it is obvious that among them would be men of vision and of high purpose. Among them were two whose names go down in dental history, Hayden and Harris, through whose activities were organized those institutions which have made dentistry what it is today, the school, the society, and the journal. During these years, too, laws regulating the practice of dentistry were established, thus creating the profession. In this, the State conferred certain rights and privileges which constitute the final step in creating a profession.

Dental schools followed in somewhat rapid order, and the education of the dentist took on an organized form. Procedures were mechanical as many of us can easily recall. Addresses consisted of a description of technics with copious references to manufacturers' products. In 1901, a country druggist suggested to the writer that he take up the study of dentistry, with the statement that "it isn't much now, just a mechanical trade, but in ten years from now, when you are ready for it, it will be developing into a real profession." How true was his prophecy!

Treatment was wholly empirical. Given a thing, or a substance that worked in a given case, under the same or similar conditions, it should work in a particular case. Or if one were a trifle curious and desired to experiment, as was one Dr. Spooner,¹¹ of Montreal, he might, by accident, find something of use. It appears that Dr. Spooner found that by sealing *arsenic trioxide* in a tooth for a few

¹¹Buckley, J. P., "Modern Materia Medica and Therapeutics", 2d edition, Blakiston Son's Co., Philadelphia, 1910, p. 285.

days, he could operate on the dentin without discomfort to the patient. But later it developed that these same teeth returned with trouble, worse than the original—they had developed abscesses. Thus this chemical came into use for the devitalization of pulps.

All empirical procedures, whether in treatment or in technic, answered only the question, how? In the early years after 1900 men's minds became impregnated with the question, why? The inanimate sciences, physics and chemistry were developing at a rapid rate, especially in the industries and it was clearly to be seen that there was no little of value for the dentist. Thus we enter the third era, 1900 to 1925.

Not unlike medicine and medical practice, for indeed dentistry is a branch of medicine, we have gone through certain stages of development. Even now we may not be wholly beyond the realm of empiricism. The jump from empiricism to science is too big to be made in one effort. There are intervening stages and they all overlap, even into the era of science as we know it today. In the beginning there can be no doubt but that all treatment was empirical and as viewed by us today, might be considered irrational. Then men began to compare and to systematize and to classify. They entered what may be known as the nosological era.¹² Then followed the morphological period in which the effects of disease were studied and diagnosis and treatment were thus determined. Dentistry perhaps was not greatly affected by this, though no doubt, to some extent. Then came the scientific or experimental era. The inanimate sciences, chemistry and physics, began to pour forth knowledge and men found in them tools of unlimited power. Medicine made discoveries little dreamed of before and dentistry profited greatly.

This is the era when the majority of us took our course in dentistry and began practice. This is the era, with an additional five years beyond 1925, known as the Era of Industrial Development. Chemistry and Physics had, of course, been studied through the years, but more in the light of pure than applied science. That division of chemistry known as *organic chemistry*, was so named be-

¹²Bernard, Claude, "Experimental Medicine", The Macmillan Co., 1927, p. IX.

cause it was thought that these compounds were "created by a mysterious power called 'vital force' supposed to reside within the living organism."¹³ Hence, they could only be manufactured in living organisms. Only ten years prior to the opening of the first dental school was the organic compound, urea, prepared from the inorganic compound, ammonium cyanate. Only since 1928, one hundred years later, has organic chemistry become of great interest to the dental profession.

In the early years of this twenty-five-period, with the advent of a better understanding or at least with an increased desire to understand, men began to realize the need of a control which was not then to be had. The late Greene Vardiman Black came into the picture and gave to the profession an emphasis to Miller's theory as to the cause of caries, a definite system of cavity preparation, and an armamentarium which now does and basically, at least, forever will hold. He gave us a better understanding of the principle of prevention, in those principles which he laid down for cavity preparation, one of which is "extension for prevention".¹⁴ This was based upon a scientific approach to anatomy and dental anatomy. Then casting came along, and the need for refractories and better alloys became paramount. These forced us into a deeper study of chemistry and metallurgy. *Our technic preceded our science.* At this time, too, we were introduced to that man who became the great benefactor of dentistry, Dr. William J. Gies. Dr. Gies' first work among us was a study of dental caries and its cause. This had its genesis in organic chemistry but went over into biology and biochemistry. Later he accomplished that marvelous job with the profession, in transforming it from a trade into a profession, and its schools, from commercial into educational institutions. Thus dental education became a "university discipline."¹⁵ The ground for this was laid, however,

¹³Simon, W., Ph.D., M.D., "Manual of Chemistry", 8th edition, p. 345, Lea Brothers & Co., New York, 1905.

¹⁴Black, G. V., M.D., D.D.S., "Operative Dentistry", Vol. 1, p. 143, Medico-Dental Publishing Co., 1908, Chicago.

¹⁵"Dental Education in the United States and Canada", Bulletin No. 19, The Carnegie Foundation for the Advancement of Teaching.

in the early years of this period, Miller's researches, Black's work, and our application of the knowledge gained from chemistry and metallurgy. In 1915 and thereafter, Billings and Rosenow went about the country teaching the principles of Focal Infection, and laying charges upon the dental profession. We accepted the charges and corrected them. Physics gave us the "wonder of wonders" and the most useful instrument to be had, the x-ray. This has been developed, so that now we can radiograph plane areas through tomography or planigraphy.¹⁶⁻¹⁷

These sciences gave us an understanding as to cause of disease and reasons for failure in treatment, and having some knowledge as to cause we therefore had a better control. To them should be added bacteriology, pathology, physiology, an increased interest in anatomy, and therapeutics, now become pharmacology. Nor are these all.

These, with the exception of pharmacology, constitute in part the biological sciences and what change was wrought in our attitude toward our profession, and our social relationships. We gained an understanding and had confidence. These new sciences, or a new appreciation of old sciences, opened up new avenues of knowledge. Physiology is the foundation study for bacteriology and pathology. Chemistry, especially organic chemistry, must be mastered even ahead of these. Pharmacology depends on chemistry, then physiology. But underlying all of these, even all knowledge of the treatment of disease, a knowledge of anatomy is most essential. In treatment of or in experimenting on living tissue, three physiological conditions must be considered: (1) anatomical operative conditions (knowledge of physiological normal); (2) physico-chemical conditions within (beginnings of physiological and leading to pathological conditions and reasons for); and (3) organic conditions of units of tissues

¹⁶Highley, L. B., B.A., D.D.S., M.S., "Practical Application of a New and Scientific Method of Producing Temporo-Mandibular Roentgenograms", *J. A. D. A.*, 24, 222; 1937 (Feb.).

¹⁷Petrilli, Alexander, M.D., Gurley, John E., D.D.S., "Tomography of the Temporo-Mandibular Joint", *J. A. D. A.*, 26, 218; 1939 (Feb.).

(physiological-pathological variations and associated conditions).¹⁸ Haven't we just these in cavity preparation, rampant caries, and pulp and investment tissue disease? "Knowledge of causes of the phenomena of life in the normal state, *i. e.*, *physiology*," says Claude Bernard, "will teach us to maintain normal conditions of life and to conserve *health*."¹⁹ Physiology is normal, pathology is abnormal: they are ruled by the same laws of chemistry, but operative under different conditions. Here again, *our technic has preceded our science*.

Our treatments in all their various forms passed from the empirical to the experimental. Because a thing worked under one condition was not sufficient reason for its working under another. When we seal a drug in a tooth today, we know what it will do. Chemistry and pharmacology tell us. Similarly, our mechanics changed from pure mechanics to art and art based upon a scientific understanding. Two arms of our cooperative endeavor, The Research Commission and The Council on Therapeutics, are worth all that we have paid into dentistry. This brings us then to the next era, 1925-1940, and perhaps another thought in the form of a question: Is a Science of Man and for Man possible?

"Science²⁰ is organized knowledge, and knowledge itself is neither good nor bad but only true or false." Pure science seeks to find out, to understand, while applied science has for its purpose, utilization. However, this distinction is really fading away, the truth of a thing must be known before it can be put to any use, and why truth, if there be no use for it? Therefore, one is contributory, at least, to the other and both are essential to our social welfare.

If "Science is organized knowledge," then any field of knowledge organized for understanding must be science. Or to put it another way, orderly arrangement of knowledge within any field is scientific. While it may be well not to be over-utilitarian, yet it is a

¹⁸Bernard, Claude, "Experimental Medicine", The Macmillan Co., 1927, p. 117-21.

¹⁹Ibid., p. 1.

²⁰Conklin, E. G., *Science*, October 21, 1938.

truism, that nothing is without value. On this hypothesis then, it becomes apparent that knowledge is of value whether in the control of phenomena as a result of research and experiment or in providing mere satisfaction in that knowledge.

However, for the purpose of this thesis, our attention should be confined to the true sciences, and of which we have the inanimate sciences, physics and chemistry and the animate sciences, biology and sociology, each with its offspring, physical chemistry, biochemistry, psychology and others previously mentioned.

This is a day when man with present methods of learning demands to know the "why" of a thing or to have proof, and further, in the use of these *tools* provided him, is it not reasonable to assume that he should have some more definite knowledge concerning his own weaknesses and possibilities, that he may have method in the use of these *tools*?

The so-called inanimate sciences have been developed to a degree such that man has been given great power. There is little that cannot be produced as a result of that knowledge. Consider for a moment the mere matter of harnessing molecules, atoms and electrons, in producing the radio and the x-ray. These are marvels of the first degree. They have given man great power, none-the-less of which has come to the dentist. Compare our alloys, gold and silver, our investment compounds, our refractories, our fine tools and instruments, our knowledge of physics and chemistry in our ordinary procedures and the confidence with which we go at our daily tasks, with those of yesterday. Who of us who knew "yesterday" would care to return to that period? That the inanimate sciences have developed and have added materially to our welfare and our satisfactions, none can deny. Thus, in this we have a science for man.

Through the years just passed and especially immediately prior to 1925, our scientific knowledge and our scientific attitude had both taken on a positive form. If a thing should be done or if a thing has occurred, why? We immediately set about to find out why; then came the question of adjustment and, how? Heretofore,

men had done the best they could under the circumstances, but now, with some understanding as to cause, better technical procedures were rapidly developed.

Education has for one of its objects the bringing about of an understanding on the part of the individual. These have consisted of the so-called three R's. But a fundamental requirement in life has been overlooked, in that the health of the individual was at least essential to a full fruition of the life of the individual in the use and the enjoyment, of his education. Therefore, to the three R's should be added H, for health.

Now, for the other field, that of the animate sciences, biology and sociology—here we may find a little different situation, yet it should be easily demonstrated that in these we do have a science for man and also a science of man. The term *biology* means, the science of life, and the term *sociology* means, the science of society or social relations. Through the former, man learns something of what *life* is and how to live it, while through the latter, men learn how to live together.

Biology has been known and studied through a great many years, and yet we have no true course in biology today. The students of medicine and dentistry get it, yes, but through various division, botany, zoology, physiology, etc. There is yet to be established a course in biology for the general university student. Out of a study of this science man will learn what his physical life is and how to take care of it. Even today our patients can talk over their problems with a fair degree of understanding but presently that understanding will be increased and no doubt, more liberally practiced. Thirty years ago parents didn't know what deciduous teeth were, and they could hardly be persuaded as to their value. No so today. Thirty years ago, people wouldn't eat vegetables. Look at your thriving vegetable markets today! And as for orange juice—this has replaced the "daily dozen"! This change has come about, directly and indirectly, with the rise in biological knowledge. Biology does and will more effectively teach us, the extent of man's universe, what the world is made of, how much is living and how much is lifeless, together

with a conception of life itself, what is harmful and what is harmless and the extent to which one may be responsible for his own physical condition.²¹

Biochemistry, the offspring of biology, physiology and chemistry, has only begun its revelations. Our real knowledge of the hormones, vitamins and of the internal glands is only in the beginning stage, yet study has progressed through many years.²² Some of us can go back in our minds to the days before there was much research. All of us can look through the Journal of Dental Research and note the progress that has been made. We now have an International Association for Dental Research and are well on the road to the financial establishment of its journal. Read the December, 1939 issue and contemplate the possible accomplishments of the future.

From the clinical standpoint, our present knowledge of nutrition and the use of food, together with our emphasis on oral hygiene at home and at the office, and including definite attention to beginning caries, we can accomplish much. Eternal vigilance is the watchword.

Bacteriology, pathology, chemistry and pharmacology have made possible the treatment and cure of infections and infectious processes. There will always be need of this knowledge, but the biological sciences will lead out in health development.

Both the medical and the dental professions have been active through the years in attendance upon community projects which have contributed to community and individual welfare, have been active in the creation of Boards of Health, and have labored earnestly in the field of Medico-Dental Relations, that together we might supply that which the people needed. So in this field, as in that of the other sciences, *our technic has preceded our science*, but now we have come to that time when we need to open the throttle wide, and secure the greatest possible knowledge. We dare not do

²¹Peabody, J. E., and Hunt, A. E., "Biology and Human Welfare", The Macmillan Co., N. Y., 1932, p. 3.

²²"Chemistry in Medicine", The Chemical Foundation, Inc., N. Y., 1928.

otherwise, we cannot, for we have brought ourselves to this high point and our only direction is straight ahead.

Much knowledge has been obtained in the fields of botany and zoology. These play an important role, or even a role parallel to any science, in medicine and dentistry. Life is life, whether plant, animal, or human. Life and death, growth, reproduction, heredity, nutrition and respiration are the same in each. Each suffers from similar afflictions. All three are attacked by bacteria and fungi. They suffer the same or similar perversions in physical growth, and so we have dwarfs and giants. Plants take up some foods poisonous to man, but in their use, transform them into food for man. Thus one may contribute to the other. Plant tissue, animal tissue and human tissue, differ only in degree and not in fact. Thus our knowledge of plant and animal life will be easily applicable to the human and we will have a "science of man and in his use of it, it will be a science for man."

Psychology occupies a unique position in that it belongs to both fields, biology and sociology. Through its application we will come to a better understanding of man's attitude toward sickness, approaching old age, and conditions, generally, over which he has no control. Paleontology and anthropology are even now playing an important part in medical practice in that, through them a better knowledge of the antiquity of disease is attainable, and through this, a better means of attacking the problem. So we may go on with a repetition of the relation of chemistry and physics, for man is a veritable chemical laboratory and his very mechanism depends on physics. Understanding of these, and application of the principles laid down, bring us at once into the field of prevention. We are automatically practicing prevention and our service has changed from that of cure and restoration to that of health. We have a "science of man and in his use of it, a science for man."

Sociology has to do with groups of individuals or society as a whole. Those things that are good for the individual must also be good for the group. The individual science will affect the group collectively as it has affected the individual, but only as group

application is made. Society will, therefore, be concerned with the application of these principles so that the community as a whole may benefit. Similarly, as the physician is he who ministers to the individual, the Board of Health will minister to the community. Society will be concerned with the ways and means for carrying out those principles. Sociology will be directly concerned with all matters of public concern, public health, politics, economics, in fact all matters pertaining to our group welfare. These may be introduced under a great variety of headings, which lie beyond the intended scope of this address. At least a part of the major divisions are those just stated. It has now become and will increasingly become more necessary for us as individual members of a group to interest ourselves in the field of sociology and to take our place in full, as citizens. Dentistry itself is a social science. We are its ministers and we must be its administrators.

Science, as generally considered in the field of education, provides knowledge of and control over facts and phenomena of nature. This is easily understood within the limits of the inanimate sciences. It requires no great stretch of the imagination, however, to make a similar application to the animate sciences, for are not most of our acts natural?

Now, as we come to the close of this first one hundred years of dentistry and our introduction to horizons ahead, what may we expect? Three facts stand out, and I quote:

"When our treatment of the pains of illness becomes not merely empirical stratagems adopted because they work, but really scientific measures applied because we understand *why* they work, then will our control of pain be complete."²³

Again, every man must be a sociologist, for the world to solve its problems.²⁴

"Social Science is not unnatural . . . Man is a part of nature, and the study of human society is just as truly 'natural science' in the real sense of the term as any other study. The difference arises from the peculiar factors and

²³Gray, Geo. W., "The Control of Pain", *Harpers Magazine*, Nov. 1939, p. 646.

²⁴Mather, K. F., Prof. of Geology, Harvard University, *Science News Letter*, Dec. 16, 1939, p. 389.

particular functions pertaining to the cooperative way of life . . . the scientific organization of society in a democracy can be achieved only when the majority of its citizens have the scientific attitude toward social problems . . . only a few physicists, chemists and technologists are required for the mastery of our physical environment, but for victory in the struggle with ourselves, every man must be his own sociologist."

But is this enough?

"... We seem to be going back to primitive aspirations in which the improvement and happiness of the individual are subordinated to the power of the state. A return to religion would prevent this trend going further, but a new stimulus is needed. That stimulus may lie in the *science of man*. (Italics not in original.) When we have a clear picture of what an optimum environment can do for the development of the individual; . . . when economics and sociology understand the human material with which they are dealing and become in their turn sciences of human relations; when we have in our hands demonstrated scientific tools capable of vastly raising the level of human relationships and of the developed qualities of man, may we then not hope that men will be moved to new aspirations commensurate to their new possibilities? Science will never take the place of religion in revealing the ultimate mysteries and purposes of life—whence we came, our purpose here on earth or what lies beyond. But religion is also concerned with improving the lives of human beings, and hence religion will be strengthened by the sciences of man as they demonstrate methods for attaining a new and higher ideal of man's life on earth. . . ."²⁵

As we treat disease, an abscess, we determine the cause; we know what has taken place from our knowledge of chemistry, bacteriology, pathology, histology and anatomy; we use a drug and in its use we know about its possible chemical action, disinfectant action, irritant action, or stimulant action. At various stages of treatment we may need one or the other of these various actions. We can watch progress and predetermine to a degree the outcome. In other words, today we are able to diagnose, to treat and to prognose to a higher degree of correctness than we could yesterday. With our knowledge of cause we are able to avoid much of yesterday; hence can we not see for man a possible brighter and happier future? Health generally has been greatly improved and longevity has been extended. With our knowledge of these sciences, we are in

²⁵Osborn, Frederick, *Scientific Monthly*, Nov. 1939, p. 459.

a better position to treat disease; there is much that we can prevent; and with increased study of economics which includes distribution, and of politics,²⁶ which means increased interest in all public and semi-public matters, surely our material welfare should be greatly advanced. Then, with the inclusion of religion as a field of social science, and which in part is true, our material welfare should be well set up, and with the spiritual goal as provided in religion *beyond* the field of *social science*, man should find himself on the high road to possible well-being. A good definition of man is: he is one with a sound body, physically, he is healthy; an educated and trained mind, he has intelligence and can do something; he is socially acceptable, he is well liked and respected; he finds favor with God, he has a spiritual outlook. Is this too high an aim for dentistry during the next one hundred years? It is submitted in true humility. The perfect state is still far off. The future is ahead of us. We must continue to be "critically and scientifically" minded and students as long as we live.

In conclusion, may I submit, the inanimate sciences, physics, chemistry, and physical chemistry will provide us knowledge in our technical procedures. They will, even as they do now, provide us with investment compounds, alloys of gold and silver, radiography, photography, all tools with which we can carry out our labors with a higher degree of accuracy and exactness. Chemistry, including pharmacology, will teach us the application of drugs and we will know what to expect. The biological sciences, anatomy, physiology, histology, bacteriology, pathology, along with chemistry of foods and the pharmacology of drugs, will give us that control over pain, representing disease as a whole, so earnestly hoped for.

These same sciences will primarily teach us health and life, so that much of that to which human kind is heir to today, will be prevented. But new avenues of combat will be opened up and the future will see these reduced still further.

Through the social sciences a better understanding of the needs

²⁶Huxley, Julian, "Science, Natural and Social", *Scientific Monthly*, Jan. 1940, p. 11.

of the individual and a better knowledge of ministering to those needs will be gained. This takes us into the realms of the humanities and a new relationship between human beings. It will be found necessary, as now so frequently suggested, that the whole man must be ministered to. That means not only the physical but the spiritual as well. We are treating not disease, but people, either sick or well. There will be need for dentists, skillfully trained—dental technics must be advanced. But the dental needs in that future day will require new knowledge regarding health and disease. Changes in social organization will require knowledge of social relationship not possessed today, and so dentistry in the Scientific Era will involve greater responsibilities, present new opportunities and the practitioner will enjoy a fuller life.

May he be like Pasteur, who laid the foundation of science in medicine, as stated by his biographer: "... absorbed as he was in his daily task, yet he carried in himself a constant aspiration towards the Ideal, a deep conviction of the reality of the Infinite and a trustful acquiescence in the Mystery of the Universe."²⁷ This is the mark of a great man. Pasteur was a great man. My hope is that dentists may be great men.

²⁷R. Vallery-Radot, "The Life of Pasteur", Doubleday Page & Co., N. Y., 1927, p. 126.

AMERICAN COLLEGE OF DENTISTS

PROCEEDINGS OF THE MILWAUKEE CONVOCATION, July 16, 1939¹

REPORTS OF COMMITTEES TO THE BOARD OF REGENTS²

(Concluded from the March-June Issue, pp. 44-68)

CONTENTS

X. Journalism. <i>J. Cannon Black, D.D.S., Chairman</i>	188
XI. Prosthetic Service. <i>Walter H. Wright, D.D.S., Chairman</i>	208

X. JOURNALISM

*J. Cannon Black, D.D.S., Chairman*³

Chicago, Ill.

In Minneapolis, in 1928, a resolution was passed providing "that the American College of Dentists create a commission whose function shall be to survey the present situation in dental journalism and report to the College." This Commission reported its findings on *The Status of Dental Journalism in the United States* to the College in 1931. Since that time notable advances have been made, and while the statistical record then rendered was of inestimable value, it now serves as a stimulus toward our further progress.

In an open debate on journalism carried on in the JOURNAL, the need for a reclassification of dental periodicals was stressed, and grouping under the following classification was suggested:⁴

"(A) Periodicals controlled and owned by dental societies.

"(B) Periodicals controlled by dental societies, but privately owned.

"(C) Periodicals privately controlled:

¹For reports of other Committees, see *J. Am. Col. Den.*, 7, 44; 1940 (March-June).

²The Socio-Economics Committee was unable, for valid reasons, to submit a report for publication this year.

³The other members of the Commission (1938-1939): G. M. Anderson, Leland Barrett, W. B. Dunning, Walter Hyde, T. F. McBride, E. G. Meisel, H. J. Noyes, R. C. Willett.

⁴Minutes of Regents meeting—*J. Am. Col. Den.*, 5, 69; 1938 (March-June).

- “(a) By owners *exclusively* engaged in the business of publication.
 “(b) By owners *not exclusively* engaged in the business of publication.

The Commission, after giving the proposed classification careful consideration, recommended to the Regents, at a meeting in Chicago, February 13, 1938, that it be adopted. This they did by unanimous vote.

With this sanction the Commission has endeavored to compile an authentic list of all the dental periodicals in the United States as of May 1, 1939. The data obtained and recorded concerning each periodical has been received from the editors of their respective publications with the exception of two which will be explained later.

In the Commission's first report in 1931, 95 non-proprietary periodicals were recorded, 3 miscellaneous, and 11 corporate. These were placed under the following divisions: Dental Society, Dental College, Dental Fraternity, Dental Hygienist and Dental Assistant, Corporate and Miscellaneous. In the present survey as of May, 1939, using the new classification of acceptable and non-acceptable publications, we find 111 acceptable, 11 non-acceptable and 3 miscellaneous. A comparison, using the original grouping, follows:

	1931	1939	Net Change
Dental Society			
Journal	22	36	+14
Bulletin	35	32	-3
Atypical	6	5	-1 +10
Dental College			
Journal	10	12	+2
Bulletin	1	9	+8
Atypical	5	8	+3 +13
Dental Fraternity			
Journal	0	2	+2
Bulletin	1	1	0
Atypical	6	2	-4 -2
Dental Hygienist and Dental Assistant			
Journal	4	4	0
Bulletin	5	0	-5
Atypical	0	0	0 -5

	1931	1939	Net Change	
Corporate				
Journal	10	7	-3	
Bulletin	1	2	+1	
Atypical	0	2	+2	0
Miscellaneous				
Journal	1	2	+1	
Bulletin	1	1	0	
Atypical	1	0	-1	0

A complete copy of this survey is attached to and becomes a part of this report.

The International Journal of Orthodontia, Oral Surgery and Radiography, now *The American Journal of Orthodontics and Oral Surgery*, was classified as a corporate journal in the Commission's first report in 1931. This publication, receiving most of its original articles from a professional organization whose control was conceded by many to be nominal rather than actual, was temporarily removed from this classification when, on February 13, 1938, the Regents "voted (a) to remove the A.J.O.O.S. provisionally from the Commission's list of non-acceptable journals; (b) to give that journal publicly a temporary accreditation as a periodical controlled by a dental society; and (c) to continue that temporary accreditation until the present nominal control has been converted into legal control, by formal contract between the Association and the owner, *provided the said legal control will be obtained before the adjournment of the annual meeting of the A.A.O. in 1939.*"⁵

Statements of this action by the Regents were sent by registered mail on February 24, 1938, to the President of the American Association of Orthodontists and to the owners of the Journal.

The time limit set by the Regents has passed, as the annual meeting of the American Association of Orthodontists in 1939 has been held. Although members of the A.A.O. have been informed that a new contract has been consummated between their society and the owners of the Journal, and the Commission has offered opportunities to them whereby we might be informed of any action taken, no

⁵*J. Am. Col. Den.*, 5, 102; 1938 (March-June).

effort has been made to do so. Neither have they responded to a questionnaire sent them asking that they classify their journal under the new classification. The Commission, therefore, recommends that the (a) "temporary rating of the A.J.O.O.S. as a periodical controlled by a dental society" be withdrawn; and that (b) the said journal be placed in the group of "periodicals privately controlled", and classified as C, a.

Dental Survey was also classified as a corporate journal in the Commission's first report in 1931. This journal now carries the statement that it is "the Official Organ of the Pierre Fauchard Academy."

In answering a questionnaire concerning a classification of dental periodicals, the editor of *Dental Survey* classifies the publication as "B", and lists its sponsor as the *Pierre Fauchard Academy*.

The Commission, being unable to find any record of the organization of this academy, wrote the editor for information in regard to the institution. His reply, quoting from his letter of June 21, 1939, was as follows:

"The Pierre Fauchard Academy will hold its third annual meeting at the time of the A. D. A. meeting in Milwaukee. At this time your communication will be placed before them for consideration. Their reply will be conveyed to you immediately after this meeting."

As the information requested could not be given until after the presentation of this report, the Commission recommends that the publication be classified as C, b.

Under date of October 24, 1939, the following communication was received from the editor of *Dental Survey*:

"We are sending you a copy of the constitution and by-laws of the Academy, which has been accepted by the board of trustees, a list of members of the Academy, as well as a copy of the agreement between the publishers and the Academy."

March 5, 1940, the chairman of the Commission advised the editor of *Dental Survey* as follows:

"Having received from you the purported list of membership and accepting it as an indication of the purpose and relationship of the Pierre Fauchard Academy in an agreement between the Academy and the publisher, in the

publication of *Dental Survey*, the Commission on Journalism of the American College of Dentists has, as of this date, placed *Dental Survey* in *Class B* of the Commission's classification pending further consideration during the Annual Convocation of the College to be held in Cleveland, Ohio, in September, 1940."

During a meeting of the House of Delegates of the American Dental Association last October, Dr. Merritt offered a resolution providing for the creation of a Coordinating Committee on Dental Journalism consisting of two members each from the American Dental Association, the American College of Dentists, and the American Association of Dental Editors, to study the needs and resources of dental journalism. The resolution was referred to a committee which reported back without recommendation, and the House of Delegates accepted the report.

However, the Journal Committee of the American Dental Association, the Commission on Journalism and the American Association of Dental Editors, recognizing the possible value that might accrue from a study of journalistic problems, will endeavor, in an unofficial conference, to gain a better understanding, and to consider means for avoiding duplication of effort.

After a struggle of four years, with the assistance of some of the prominent members of our profession serving on their editorial board and others contributing to its pages, *Nutrition and Dental Health*, posing as a professional journal, has been discontinued. The distribution of this journal was under the control of a commercial company.

It is hard to reconcile the fact that, with journalism as one of the educational media of the profession, and a source of information to the younger graduate, ethical men will lend their support to uncontrolled publications. They permit their photographs and autobiographies to appear in those journals, consent to have their names on editorial boards and continue contributions to them.

The Commission desires to call attention to the seeming disregard of *some* of the members of the College who do not recognize the high honor which has been conferred upon them. They fail to aid in

the advancement of professional ideals and the betterment of journalism, by giving professional fidelity to those who would impair the profession for commercial gain and their own aggrandizement. They must be induced to realize that the motive of service should replace the motive of profit.

Reprints of a paper entitled "Our Literature", which was published in the December, 1938, issue of the *Journal of the American College of Dentists*, have been sent to members of the profession who have been contributing articles to alleged professional journals, hoping thereby to call their attention to the status of such publications.

May we submit the resolution adopted by the American Association of Dental Schools at their annual meeting in Chicago on March 18, 1935:

"WHEREAS, One of the important functions of a dental educational institution is the development of a proper attitude of the students toward professional literature and journalism; and

"WHEREAS, The free distribution of commercial and proprietary dental publications to the students develops the wrong psychological attitude toward dental literature; and

"WHEREAS, The articles published and advertisements carried are uncensored, and often present erroneous and distorted concepts of professional conduct; be it

"RESOLVED, That it is the sense of the American Association of Dental Schools that distribution of the Dental Students' Magazine and other similar publications to dental students be discouraged by the administrative officers of the various schools, and that official lists of students be not furnished to the publishers of such magazines."

The Commission suggests that professionally uncontrolled publications be made inaccessible to students.

The Commission desires to mention the excellent cooperation it is receiving from the American Association of Dental Editors, and to commend them for the progress they are making in their endeavor to place dental periodicals on a par with other professional publications.

Members of the Commission are represented on several of their

committees, and are working cooperatively with them. We are considering the question of uncensored advertising with the Committee on Advertising Code; the advisability of a student's magazine with the Special Committee on Dental Schools Publications; and the problem of regional journals with an ideal set-up for a long range journalistic program with the Survey Committee. The reports of these activities will be presented before that Association.

The American College of Dentists, through its Commission on Journalism, in 1930-1931, suggested and fostered the founding of the American Association of Dental Editors. This organization has grown steadily in influence and usefulness and has become a potent factor in the improvement of dental literature. We recommend that the College, and Fellows individually, actively support and encourage that Association. And further, that the Secretary of the College be instructed to send a copy of this recommendation to all Fellows of the College and to the officers of the A.A.D.E.

The Dental Index has always been a valuable aid to journalistic work. The fifteenth volume is now in the hands of the printer and should be ready for distribution during August of this year. With its publication the profession has available for reference use a complete index of one hundred years of dental periodical literature, classified under Dr. Black's modification of the Dewey Decimal Classification.

Starting with 1939 a new method of classification is being adopted which is similar to that used in the Quarterly Cumulative Index Medicus. The abbreviation of the titles of the periodicals will follow in general those recommended by the American Association of Dental Editors. The new volume will not appear until 1942 but monthly cards indexing the literature may be secured.

THE SURVEY

TABLE I

Dental Periodicals⁶ (May, 1939) with Editor, Frequency of Issue, Type, Classification, Sponsorship, and Grouped as to Sponsorship⁷

<i>Society Journals</i>					
<i>Title</i>	<i>Editor</i>	<i>Issues per year</i>	<i>Type</i>	<i>Class</i>	<i>Sponsor- ship</i>
Apollonian, The	W. F. Donahue 476 Commonwealth Boston, Mass.	4	J	A	Soc
American Association of Dental Editors, Transactions of the	Grace R. Spaulding 555 W. Maple Ave. Birmingham, Mich.	1	Atyp	A	Soc
Archives of Clinical Pathology	L. R. Cahn 944 Park Ave. New York, N. Y.	4	J	A	Soc
American College of Dentists, Journal of the	John E. Gurley 350 Post St. San Francisco, Cal.	4	J	A	Soc
American Dental Association, Journal of the	L. Pierce Anthony 212 E. Superior St. Chicago, Ill.	12	J	A	Soc.
Annals of Dentistry	B. B. Palmer 667 Madison Ave. New York, N. Y.	4	J	A	Soc
Angle Orthodontist, The	Harold J. Noyes 55 E. Washington St. Chicago, Ill.	4	J	A	Soc
Arkansas State Dental Association, Journal of the	F. D. Woods 1019 New Donaghey Bldg., Little Rock, Ark.	4	J	A	Soc

⁶The Commission continues the typal designations, Journal, Bulletin, and Atypical as adopted by the first Commission. See Bound Report published in 1932, p. 57.

⁷Abbreviations: "J"—journal; "Bul"—bulletin; "Atyp"—atypical; "Soc"—society; "Col"—college; "AADS"—American Association of Dental Schools; "Fr"—fraternity; "DHA"—dental hygienists and assistants; "Pri"—private; "Misc"—miscellaneous; "DLA"—Dental Laboratory Association.

<i>Title</i>	<i>Editor</i>	<i>Issues per year</i>	<i>Type</i>	<i>Sponsor- Class ship</i>
California State Dental Association, Journal of the	John E. Gurley 350 Post St. San Francisco, Cal.	6	J	A Soc
Colorado State Dental Journal	Chas. F. Brown 433 Mack Bldg. Denver, Colo.	4	J	A Soc
District of Columbia Dental Society, Journal of the	Edmund T. Lane Medical Science Bldg. Washington, D. C.	3	J	A Soc.
Dentistry for Children, Review of	S. D. Harris Eaton Tower Detroit, Mich.	4	Atyp	A Soc
Dental Outlook	N. Kobrin 7802 Fifth St. Brooklyn, N. Y.	12	J	A Soc
Dental Research, Journal of	H. B. G. Robinson 4559 Scott St. St. Louis, Mo.	6	J	A Soc
Florida State Dental Association, Journal of the	E. L. Thompson 326½ S. Beach St. Daytona, Fla.	12	J	A Soc
Georgia State Dental Association, Journal of the	Jo. H. Stegall Lindale, Ga.	3	J	A Soc
Houston District Dental Society, Journal of the	J. D. Larkin 3816 Fannin St. Houston, Tex.	12	J	A Soc
Illinois Dental Journal	H. W. Oppice 1002 Wilson Ave. Chicago, Ill.	12	J	A Soc
Indiana State Dental Association, Journal of the	H. C. Dimmich 2615 S. Calhoun St. Fort Wayne, Ind.	12	J	B Soc
Kansas State Dental Association, Journal of the	Fred A. Richmond 1008 Huron Bldg. Kansas City, Kan.	4	J	A Soc

<i>Title</i>	<i>Editor</i>	<i>Issues per year</i>	<i>Type</i>	<i>Sponsor- Class ship</i>
Minneapolis District Dental Journal	Walter Hyde 434 La Salle Bldg. Minneapolis, Minn.	4	J	A Soc
Michigan State Dental Society, Journal of the	W. R. Davis Mich. Dept. of Health Lansing, Mich.	12	J	A Soc
Missouri State Dental Association, Journal of the	O. W. Brandhorst 4952 Maryland Ave. St. Louis, Mo.	12	J	A Soc
Nebraska State Dental Association, Journal of the	J. F. Sheehan City Nat'l Bank Bldg. Omaha, Neb.	4	J	A Soc
New Jersey State Dental Society, Journal of the	C. F. Harper 143 Belmont Ave. Jersey City, N. J.	4	J	A Soc
New York Journal of Dentistry	J. A. Salzmann 654 Madison Ave. New York, N. Y.	11	J	A Soc
Northwest Dentistry— Regional—Minnesota, N. Dakota, S. Dakota	V. D. Irwin 15 Millard Hall Minneapolis, Minn. H. H. Pfister Wahpeton, N. Dak. J. L. Moriarty Watertown, S. Dak.	4	J	A Soc
Ohio State Dental Society, Journal of the	E. C. Mills 225 E. Broad St. Columbus, O.	4	J	A Soc
Oregon State Dental Association, Journal of the	A. F. Weeks 1015 Selling Bldg. Portland, Ore.	12	Atyp	A Soc
Pennsylvania State Dental Journal	F. H. Hoeffler 902 Medical Arts Bldg. Reading, Pa.	9	Atyp	A Soc
Periodontology, Journal	Grace R. Spaulding 555 W. Maple St. Birmingham, Mich.	2	J	A Soc

<i>Title</i>	<i>Editor</i>	<i>Issues per year</i>	<i>Type</i>	<i>Sponsor- Class ship</i>
Second District Dental Society of the State of New York, Journal of the	Jacob Shapiro 766 Eastern Parkway Brooklyn, N. Y.	8	J	A Soc
Southern California State Dental Ass'n, Journal of the	Arthur W. Lufkin 6253 Hollywood Blvd. Hollywood, Cal.	12	J	A Soc
South Carolina State Dental Association, Journal of the	G. C. Albright 206 E. North St. Greenville, S. C.	1	J	A Soc
Tennessee State Dental Association, Journal of the	G. A. Bibee Box 5031 Fountain City, Tenn.	4	J	A Soc
Texas State Journal	Willard Ogle Medical Arts Bldg. Dallas, Tex.	12	J	A Soc
Washington State Dental Journal	L. L. Foote Medical Arts Bldg. Seattle, Wash.	9	J	A Soc
Virginia State Dental Journal	L. S. Montague Medical Arts Bldg. Charleston, W. Va.	4	J	A Soc
Wisconsin State Dental Society, Journal of the	J. M. Donovan Neenah, Wis.	6	Atyp	A Soc
<i>Society Bulletins</i>				
Alabama Dental Association, Bulletin of the	J. S. Gillespy, Jr. First Nat'l Bank Bldg. Birmingham, Ala.	2	Bul	A Soc
Alameda County Dis- trict Dental Society, Bulletin of the	T. L. Brown 2241 Central Ave. Alameda, Cal.	12	Bul	A Soc
American Society of Oral Surgeons and Exodontists, Bulletin	Harry Bear Professional Bldg. Richmond, Va.	2	Bul	A Soc
Chicago Dental Society, Bulletin of the	Harold Hillenbrand 100 W. North Ave. Chicago, Ill.	52	Bul	A Soc

<i>Title</i>	<i>Editor</i>	<i>Issues per year</i>	<i>Type</i>	<i>Sponsor- Class ship</i>
Cincinnati Dental Society, Bulletin of the	Paul Cassidy Carew Tower Cincinnati, O.	10	Bul	A Soc
Connecticut State Dental Association, Bulletin	W. J. Murray 302 State St. New London, Conn.	2	Bul	A Soc
Cleveland Dental Society, Bulletin of the	C. W. Krauss Union Bank Bldg. Cleveland, O.	7	Bul	A Soc
Chronicle, Omaha District Dental Society	C. H. Schroeder Medical Arts Bldg. Omaha, Neb.	12	Bul	A Soc
Dental Society of the State of New York, Bulletin of the	J. G. Roberts 471 Linwood Ave. Buffalo, N. Y.	10	Bul	A Soc
Denver Dental Association, News Bulletin of the	A. B. Metzner Republic Bldg. Denver, Colo.	8	Bul	A Soc
Detroit Dental Bulletin	C. E. Martinek Fisher Bldg. Detroit, Mich.	12	Bul	A Soc
Essex County New Jer- sey Dental Society Bulletin	Jacob L. Chivian 99 Shanley Ave. Newark, N. J.	8	Bul	A Soc
Hudson County Dental Society Bulletin	L. A. Romano 777 Bergen Ave. Jersey City, N. J.	12	Bul	A Soc
Iowa Dental Bulletin	J. P. Leonard Union Bldg. Davenport, Ia.	6	Bul	A Soc
Kansas District Dental Society Bulletin	Mervin Curran 906 Waldheim Bldg. Kansas City, Mo.	12	Bul	A Soc
Kings County Dental Society Bulletin	Jos. Schure 577 Empire Bldg. Brooklyn, N. Y.	7	Bul	A Soc

<i>Title</i>	<i>Editor</i>	<i>Issues per year</i>	<i>Type</i>	<i>Sponsor- Class</i>	<i>ship</i>
Maine Dental Society Bulletin	P. R. Smith Lisbon St. Lewiston, Me.	1	Bul	A	Soc
Massachusetts Dental Society, Bulletin of the	C. E. Rounds 19 Bay Street Rd. Boston, Mass.	3	Bul	A	Soc
Midtown Dental Society Bulletin of New York City	T. C. Aginis 173 Broadway New York, N. Y.	7	Bul	A	Soc
Milwaukee Dental Society Bulletin	J. P. Justin 1723 W. Center St. Milwaukee, Wis.	6	Bul	A	Soc
Nassau County Dental Society, Bulletin of the	H. Weinstein 884 Central Ave. Woodmere, N. Y.	7	Bul	A	Soc
Newark Dental Club Bulletin	Samuel Konweiser 194 Vassar Ave. Newark, N. J.	9	Bul	A	Soc
Ninth District Dental Society, Bulletin of the	C. L. Peet Medical Arts Bldg. Peekskill, N. Y.	5	Bul	A	Soc
North Carolina Dental Society, Bulletin of the	Neal Sheffield Dixie Bldg. Greensboro, N. C.	4	Bul	A	Soc
Northern Dental Society Bulletin	Morris Schoenfeld 15 W. 81st St. New York, N. Y.	12	Bul	A	Soc
Odontological Society of Western Pennsylvania, Official Bulletin of the	W. F. Swanson 5326 Pocusset St. Pittsburgh, Pa.	10	Bul	A	Soc
Oklahoma State Dental Society, Bulletin of the	O. W. Boyer Perry, Okla.	4	Bul	A	Soc
Outlook and Bulletin	J. G. Carr 109 N. 5th St. Camden, N. J.	9	Bul	A	Soc

<i>Title</i>	<i>Editor</i>	<i>Issues per year</i>	<i>Type</i>	<i>Class</i>	<i>Sponsor- ship</i>
Pacific Coast Society of Orthodontists, Bulletin of the	R. L. Blake 409 Butler Bldg. San Francisco, Cal.	4	Bul	A	Soc
Philadelphia County Dental Society, Bulletin of the	Abram Cohen Spruce St. Medical Bldg. Philadelphia, Pa.	8	Bul	A	Soc
San Diego County Dental Society Bulletin	J. C. A. Harding First Nat'l Bank Bldg. San Diego, Cal.	12	Bul	A	Soc
Southern California State Dental Ass'n, Year Book of the	S. M. Crump 6013 Hollywood Blvd. Hollywood, Cal.	1	Atyp	A	Soc
Toledo Dental Society Bulletin	J. W. Hartshorn Nicholas Bldg. Toledo, O.	12	Bul	A	Soc
Virginia State Dental Association Bulletin	G. W. Duncan Professional Bldg. Richmond, Va.	3	Bul	A	Soc
<i>College Publications</i>					
Articulator, The (St. Louis University)	T. E. Purcell 3556 Caroline St. St. Louis, Mo.	4	J	A	Col
American Association of Dental Schools, Proceedings of Annual Meeting	G. D. Timmons 1121 W. Michigan St. Indianapolis, Ind.	1	Atyp	A	Col
Alumni Bulletin, U. of Illinois College of Dentistry	Maynard Hine 808 Wood St. Chicago, Ill.	4	Bul	A	Col
Alumni Bulletin, Ann Arbor Dental School	R. W. Bunting Ann Arbor, Mich.	3	Bul	A	Col
Baltimore College of Dental Surgery, Journal of the	B. M. Dorsey Baltimore College of Dental Surgery Baltimore, Md.	2	J	A	Col

<i>Title</i>	<i>Editor</i>	<i>Issues per year</i>	<i>Type</i>	<i>Class</i>	<i>Sponsor- ship</i>
Bur, The (Loyola University)	R. W. McNulty 1757 W. Harrison St. Chicago, Ill.	3	J	A	Col
Bushwacker, The (Kansas City Western Dental College)	H. E. Francke Western Dental College Kansas City, Kans.	1	Bul	A	Col
Dental Education, Journal of (American Ass'n of Dental Schools)	J. T. O'Rourke 129 E. Broadway Louisville, Ky.	4	J	A	Col
Caementum (North Pacific College)	C. M. Wheeler Medical Arts Bldg. Portland, Ore.	4	J	A	Col
Contact Point (College of Physicians and Surgeons, San Francisco School of Dentistry)	E. F. Inskipp 344 14th St. San Francisco, Cal.	9	Atyp	A	Col
Columbian Dental Review, The (Columbia U., N.Y.C.)	Milton Wechsler 1631 Washington Ave. New York N. Y.	4	J	A	Col
Dentoscope, The (Howard University)	J. L. Davis College of Dentistry Washington, D. C.	2	Bul	A	Col
Dental Ray (University of Pittsburgh)	T. F. McBride School of Dentistry Pittsburgh, Pa.	4	J	A	Col
Dental Violet, The (N. Y. U. College of Dentistry)	I. M. Kestenbaum 2780 Grand Concourse Bronx, N. Y.	4	Atyp	A	Col
Explorer, The (Kansas City Western Dental College)	H. E. Francke Western Dental College Kansas City, Kans.	3	Bul	A	Col
Georgetown Dental Journal (Georgetown Dental School)	W. J. Demer 2041 Huidekoper Pl., N. W. Washington, D. C.	3	J	A	Col

<i>Title</i>	<i>Editor</i>	<i>Issues per year</i>	<i>Type</i>	<i>Class</i>	<i>Sponsor- ship</i>
Harvard Dental Record (Harvard University Dental School)	L. M. S. Miner Harvard Dental School Boston, Mass.	4	Atyp	A	Col
Informat, The (Texas Dental College)	F. C. Elliott 1018 Blodgett St. Houston, Tex.	Indefi- nite	Atyp	A	Col
Medentian, The (U. of Buffalo)	Henry Teloh 24 High St. Buffalo, N. Y.	8	Atyp	A	Col
Medical College of Virginia Medical Alumni Ass'n, Bulletin of the	L. E. Garrett Richmond, Va.	2	Bul	A	Col
News Letter (University of Cali- fornia College of Den- tistry, San Francisco, Cal.)	W. S. Smith 450 Sutter St. San Francisco, Cal.	Indefi- nite	Atyp	A	Col
New York University Dental News, The	Elliott Hechtman 209 E. 23rd St. New York, N. Y.	9	Atyp	A	Col
Northwestern Uni- versity Bulletin	C. W. Freeman 311 E. Chicago Ave. Chicago, Ill.	4	Bul	A	Col
Penn Dental Journal (U. of Pennsylvania)	W. A. Blatz 722 Sheridan Ave. Plainfield, N. J.	4	J	A	Col
Temple Dental Review (Temple University)	A. O. Newman 2215 Green St. Philadelphia, Pa.	4	J	A	Col
Tufts Dental Club of New York, Bulletin of the	T. C. Aginis 173 Broadway New York, N. Y.	8	Bul	A	Col
Tufts Dental Outlook (Tufts College Dental School)	M. P. Lewitus 416 Huntington Ave. Boston, Mass.	4	J	A	Col

<i>Title</i>	<i>Editor</i>	<i>Issues per year</i>	<i>Type</i>	<i>Class</i>	<i>Sponsor- ship</i>
Washington University Dental Journal	B. E. Lischer 4559 Scott St. St. Louis, Mo.	4	J	A	Col
Year Book, College of Dentistry, University of Southern California	R. L. Arnett 3780 Wilshire Blvd. Los Angeles, Cal.	1	Bul	A	Col
<i>Fraternity Publications</i>					
Alpha Omega, The	A. L. Borish 5944 Lansdowne Ave. Philadelphia, Pa.	4	J	A	Fr
New York News (Alpha Omega Club of New York)	Bernard E. Gruber 780 Pelham Parkway Bronx, N. Y.	8	Bul	A	Fr
Desmos	Harold Hillenbrand 100 W. North Ave. Chicago, Ill.	4	Atyp	A	Fr
Frater of Psi Omega, The	John E. Gurley 350 Post St. San Francisco, Cal.	4	Atyp	A	Fr
Xi Psi Phi Quarterly	V. H. Nilsson La Salle Bldg. Minneapolis, Minn.	4	J	A	Fr
<i>Hygienists-Assistants Publications</i>					
American Dental Hygienists Association, Journal of the	Margaret H. Jeffreys State Board of Health Dover, Del.	4	J	A	DHA
Dental Assistant, The	Juliette A. Southard 311 Huntington Bldg. Miami, Fla.	6	J	A	DHA
Dental Hygiene Quarterly	Ada Gladfetter 712 W. Locust St. York, Pa.	4	J	A	DHA
New York State Dental Hygiene Quarterly, The	Mary A. Owen 28 Tremaine Ave. Kenmore, N. Y.	4	J	A	DHA

Private Publications

<i>Title</i>	<i>Editor</i>	<i>Issues per year</i>	<i>Type</i>	<i>Sponsor- Class ship</i>
American Journal of Orthodontics and Oral Surgery	H. C. Pollock 3525 Pine Blvd. St. Louis, Mo.	12	J	C,a Pri
CAL	John Hooper 6033 Wentworth Ave. Chicago, Ill.	12	Atyp	C,b Pri
Dental Craftsman, The	A. A. Seaborg 400 E. 79th St. Chicago, Ill.	12	J	C,b Pri
Dental Digest, The	E. J. Ryan 708 Church St. Evanston, Ill.	12	J	C,a Pri
Dentogram	G. E. Simons 2012 Jackson Blvd. Chicago, Ill.	6	Atyp	C,b Pri
Dental Items of Interest	P. H. Belding Waucona, Iowa	12	J	C,b Pri
Dental Radiography and Photography	A. P. S. Sweet 343 State St. Rochester, N. Y.	Periodi- cally	Bul	C,b Pri
Dental Students Magazine	Pratt Ringland 819 Michigan Ave. Chicago, Ill.	9	J	C,a Pri
Dental Survey	Elmer S. Best 801 Medical Arts Bldg. Minneapolis, Minn.	12	J	C,b Pri
Oral Hygiene	E. J. Ryan 708 Church St. Evanston, Ill.	12	J	C,a Pri
Standard Dental Topics	Zielinski & Sternberg 114 W. 44th St. New York, N. Y.	12	Bul	C,b Pri

Miscellaneous Publications

<i>Title</i>	<i>Editor</i>	<i>Issues per year</i>	<i>Type</i>	<i>Sponsor- Class ship</i>
Odontologia	Juan Font Suarez Box 3863 Santurce, Puerto Rico "Controlled by the dental class of Puerto Rico in general whether member or not member of the Dental Society. Is the Official Journal of this class by consent given to the editor through referendum."	6	J	.. Misc
Datter, The (North Pacific College)	A. W. Grant 609 N. E. Oregon St. Portland, Ore. "Financed by an appropriation from the student body fund which is donated by each student. The students select a student editor each year, and the editor edits the magazine in any manner he sees fit. The school, therefore, has little, if anything, to do with the actual publication."	12	J	C,b Misc
Dental Bulletin, Supplement to Army Medical Bulletin	Major H. G. Ott Surgeon General's Ofc. Washington, D. C.	4	Bul	C,b Misc

TABLE 2

Dental Periodicals (May, 1939) as to Classification^{*}

Class A	110
Class B	1
Class C, a	4
C, b	9
Unclassed	1
<hr/>	
Total	125

^{*}See p. 1, this report in this issue.

TABLE 3
Dental Periodicals (May, 1939) as to Type

	<i>Class A</i>	<i>Class B</i>	<i>Class C, a</i>	<i>Class C, b</i>	<i>Totals</i>
Journals	52	1	4	4	61
Bulletins	42	..	..	3	45
Atypicals	16	..	..	2	18
Unclassed journal .....	..	..	..	..	1
					<hr/> 125

TABLE 4
Dental Periodicals (May, 1939) as to Nature of Ownership

<i>Ownership</i>	<i>Number</i>
Society—Class A	72
Class B	1
College	29
Fraternity	5
Hygienist-Assistants	4
Private	11
Miscellaneous	3
	<hr/>
Total	125

TABLE 5
Dental Periodicals (May, 1939) as to Frequency of Issue

No. issues per year	1	2	3	4	5	6	7	8	9	10	11	12	52	Indefi- nite	Period- ically
Periodicals	7	7	8	40	1	8	4	7	7	3	1	28	1	2	1

TABLE 6
Dental Periodicals (May, 1939) Frequency of Issue as to Types

No. issues per year	1	2	3	4	5	6	7	8	9	10	11	12	52	Indefi- nite	Period- ically
Journals	1	2	4	30	—	4	—	1	2	—	1	17	—	—	—
Bulletins	3	5	4	5	1	2	4	5	2	3	—	9	1	—	1
Atypicals	3	—	—	5	—	2	—	1	3	—	—	2	—	2	—

XI. PROSTHETIC SERVICE

Walter H. Wright, D.D.S., Ph.D., *Chairman*¹
Pittsburgh, Pa.

The members of the committee having been appointed in December, the work of the ensuing year was begun by submitting to them a copy of last year's recommendations together with a statement of problems to be considered by the committee during the current year.

I. *Disposition of Recommendations*

Three of these recommendations were considered as follows:

1. *There should be greater vigilance by the profession to prevent licensing of technicians.*

3. *Widespread appeals should be made to the members of the dental profession to protect the oral health of the public and to discharge their professional responsibilities by refraining from the use of dental technicians as assistants in performing intraoral phases of prosthetic practice.*

6. *There should be wider distribution to the profession of information on the important question of profession-technician relationship.*

These three recommendations require publicity to be made effective. One committeeman believes "that the way to attack this problem is to form organizations in states, component societies, cities, towns and villages which will make it their business to keep the dental profession aware of their responsibilities in prosthetic dentistry and of the dangers that beset it".

Information has been made available to the profession through several channels:

(a) Reprints of "Guarding Frontiers of Public Welfare,"² containing excerpts from last year's report, have been distributed to several hundred dentists by the committee.

(b) Addresses and papers before professional groups have brought this problem to the attention of approximately 1,000 dentists.

(c) Papers and editorials such as those listed below have appeared in dental publications during the past year:

¹The other members of this Committee (1938-9): W. H. Grant, F. M. Hight, A. P. O'Hare, A. H. Paterson.

²*J. Am. Col. Den.*, 5, 253; 1938 (Dec.).

(1) Walker, Alfred—"We Need No Licensing for Laboratory Workman," *Oral Hygiene*, 29, 175, 1939, Feb.

(2) Hillenbrand, Harold—"Dentists and Dental Laboratories," *The Bulletin of the Chicago Dental Society*, 19, 38, 15; 1939 (April 28).

(3) "Efforts Are Continued by Laboratories to Secure Licensing and Technician Registration," *The Bulletin of the Chicago Dental Society*, 19, 38, 9; 1939 (April 28).

(4) Hillenbrand, Harold—"Gesture of Independence," *The Bulletin of the Chicago Dental Society*, 19, 41, 11; 1939 (May 19).

(5) Wright, W. H.—"Licensing of Technicians Leads to Control of Certain Phases of Prosthesis," *The Bulletin of the Chicago Dental Society*, 19, 45, 5; 1939 (June 16).

(6) Hillenbrand, Harold—"Reasoning: A Fine Art," *The Bulletin of the Chicago Dental Society*, 19, 13; 1939 (June 16).

All of these, except the one by Wright, are presented elsewhere in this report.

The committee is of the opinion that widespread publicity will be forthcoming as a result of the recent attempt of the Illinois laboratories and technicians to secure license and registration which will be discussed in part III of this report.

Recommendation 2. *There should be more widespread employment of dental technicians by dentists in their own offices.* Commenting on the employment of technicians, two members of the committee have submitted the following reasons why this desired objective is difficult to attain at present:

(a) Dentists, like others, have suffered from the depression and find it necessary to curtail rather than to increase their expenses by employing technicians.

(b) Laboratory technicians as trained today are too highly specialized for the various laboratory procedures related to the general practice of dentistry. Technicians, in general, are trained to do a single operation of the work as required in mass production and have little ability beyond the scope of the work in which they are employed.

For economic reasons the average dentist has come to depend less on the commercial dental laboratory. The pinch of necessity compels many dentists to do all of their own laboratory work which has

been made quicker and easier through the use of up-to-date materials and equipment.

Recommendation 5. *The College should suggest to the American Association of Dental Schools that a study of the need for, and if advisable, of plans for training, examining, certifying and supervising dental technicians by the dental profession, be sponsored by that body.* During the Cleveland meeting in March, 1939, your chairman presented this recommendation to the Executive Committee of the American Association of Dental Schools whereupon a special committee was appointed and instructed to undertake the proposed study. A report of this committee's work will not be ready until the next annual meeting of the Association.

Recommendation 4. *A joint study of the profession-technician relation should be undertaken by a committee composed of members of the College and representatives of the laboratory technicians.*

This recommendation has been reserved for the last, since nothing has been done about it.

Failure to engage in a joint study of the profession-technician relation may be attributed to the chairman's illness during February, March and April.

Last year the committee unanimously approved this recommendation, but questionnaires sent out during the past winter have brought no satisfactory plan of procedure. One member favors the joint study and believes something might be accomplished by it. Another member sees numerous obstacles in the way, such as the profession's authority, the problem of the poorer laboratories, and the need for defining the committee's aims; he recommends that the subject be explored further before consultation with the technicians. Two members have offered no suggestions. The chairman has favored a preliminary joint test study in a locality where a suitable plan might be developed through experimentation.

II. *Technicians Reply to Profession's Plea for Joint Study by Demanding Licensure*³

The committee's report for 1937-38 contained two papers, one by Dr. Alfred Walker entitled "The Commercial Dental Laboratory",⁴ the other by Dr. Wm. J. Gies, "Application of the Golden Rule to Guide Dentist-Laboratory Relation".⁵ Discussing the problem of statutory regulation of laboratories, Dr. Walker called it a "weighty problem" and said that "no move in this direction should be made without the careful consideration and mutual agreement between the dental profession and the laboratory owners. As we see it, the situation could better be served by a friendly understanding rather than by legislation." Dr. Gies concluded his paper with the following paragraph: "It is probable that this study would enable organized dentistry and the organized commercial dental-laboratories to develop a working agreement (code) on desirable relationships, amicable cooperation, just procedures, etc., under which could be established and maintained a mutually satisfactory means for the public accreditation (registration) of individual dental technicians and of individual dental laboratories."

The *Laboratory Technician*, commenting editorially on Dr. Gies' article, made the following statement: "Dr. Gies' impartial survey of existing evils and his proposals merit your careful attention and consideration."⁶ By October, the *Laboratory Technician*⁷ had changed its attitude toward the Gies proposal as shown in the following demand for licensing of technicians and statutory regulation of dental laboratories:

LABORATORIES NEED REGULATION! IF NOT BY LEGISLATION, THEN HOW?

"There is an interesting—even ominous—analogy between the profession's temporizing attitude toward the regulation and control of dental laboratories

³*J. Am. Col. Den.*, 4, 240; 1937 (Dec.).

⁴Report for 1937-1938, *J. Am. Col. Den.*, 6, 134; 1939 (June).

⁵Report for 1937-1938, *J. Am. Col. Den.*, 6, 138; 1939 (June).

⁶*Laboratory Technician*, 9, 7, 14; 1938 (May).

⁷*Ibid.*, 11, 12, 3; 1938 (Oct.).

and its equally temporizing attitude toward the question of dental care for the low income groups.

"In both instances, the profession seems to be stalling for time; waiting for something to turn up which will get it out of its dilemma and save it the trouble of having to take some definite action on these two questions upon whose ultimate solution the future of dentistry depends.

"Provision of dental care for the underprivileged is a matter Dentistry will have to work out for itself unless it wishes to have the problem worked out for it by sociologists and politicians.

"In the matter of laboratory regulation, however, the profession can count upon the sympathetic cooperation of the organized dental laboratories. Both profession and laboratories agree on one point—that the laboratories need regulation. They also agree that the principal reason regulation is needed is to eliminate the increasing menace of illegal practice. Despite the fact that illegal practice is a greater menace to the profession than it is to the laboratories, it is the profession which temporizes and stalls instead of boldly striking out to end the evil by the one logical means—licensing technicians and statutory regulation of dental laboratories.

"Legislation: Only Solution

"Organized dental laboratories, knowing conditions in the industry and being under no illusions as to the type of men they must handle if illegal practice is to be curbed, can see no solution except legislation which will put dental laboratories and technicians under state regulation and control. Since the profession has balked at every suggestion of legislation, laboratories have reached the point where they are asking, 'If not legislation, what?'

"Discussion of the laboratory problem has become an increasingly popular subject by dental societies in the last year. Here again the discussions have had a discouraging resemblance to those on dental care. Much talk, much referring of the subject to committees for study, but no recommendations for action. This is unfortunate, considering the pressing need for positive action both from the standpoint of the profession as well as of the laboratories.

"It is even more unfortunate when men of the calibre of Dr. Alfred Walker and Dr. William J. Gies discuss the laboratory problem, for these recognized leaders of dental thought are inclined to side-step the matter of statutory regulation, legislation and licensing. While they do not condemn legislation in so many words, they feel that the laboratory problem, including illegal practice, could be solved equally satisfactorily by what might be termed gentlemen's agreements.

"Dr. Alfred Walker has suggested that laboratory owners should adopt a code 'that would, among other things, bind laboratories to refrain from

illegal and unfair practices and to report to the authorities any dentist who attempts to induce a laboratory owner or employee to violate the provisions of the code. Dentists, on the other hand, should agree to patronize only those laboratories who subscribe to the code.'

"Dr. William J. Gies thinks that the problems facing the laboratories and the profession, including illegal practice, could be solved by applying the Golden Rule.

"Alternatives to Legislation"

"These are the only two tangible alternatives for legislation yet suggested by the profession. Considering the fact that illegal practitioners would not sign a code, do not worry much about professional patronage, and have never heard of the Golden Rule, it is no wonder that the reputable laboratories have not waxed very enthusiastic over these suggestions, however sincere and admirable the motives which inspired them.

"Meantime, while Dentistry fiddles, Rome burns.

"The ranks of illegal practitioners are growing almost daily. And, again coincidentally, politically sponsored health plans are making their appearance in legislatures.

"If Dentistry knew as much about illegal practitioners as the dental laboratories know, it would understand why licensing technicians and laboratories is the only possible solution. The fact of the matter seems to be that those who guide Dentistry are too far removed from the illegal practitioner to recognize him at his full value as a menace. Probably they have never lost a case to an illegal practitioner. Hence they look upon him as some obscure scoundrel who is racketeering in the denture field, victimizing the poor and ignorant.

"Menace of Illegal Practice"

"To the dentist with a small neighborhood practice, however, the illegal practitioner is far from obscure. He is an actual competitor. These dentists know much about illegal practitioners, often having a pretty good suspicion who they are. Unfortunately, such dentists have or take little or no part in directing the policies of their societies.

"What Dentistry's leaders do not recognize is that illegal practice is directly related to the increase in the number of dental laboratories, and that this unrestricted growth of the number of laboratories is directly due to the lack of any regulation of the laboratory industry.

"Many dentists frankly admit they are opposed to any legislation or any kind of regulation which will in any way restrict the number of laboratories. They feel, the more the merrier; every new laboratory makes the competition so much stiffer, from which Dentistry will benefit in lower laboratory prices.

"This is all true. What Dentistry does not realize is that this competition

is what is swelling the ranks of illegal practitioners. With not enough work available to keep the present established shops profitably busy, the present rate of increase in the number of laboratories simply means that the newcomers are driven to price-cutting immediately. Then, finding it impossible to exist on profitless legitimate work, they inevitably drift into what is, for them, highly profitable illegal practice.

"Illegal practice holds a dual threat for Dentistry. In the first place each denture case which an illegal practitioner handles means not only *one* case that some dentist does not get but probably several. Clients of illegal practitioners pass the word along to friends and relatives who are also interested in saving money on artificial teeth.

"In the second place, Dentistry is permitting to be built up among these illegal practitioners a group which some day might prove a serious embarrassment. If these men are able to produce, illegally, dentures which apparently give satisfaction to a large number of people—and do it at less cost—some legislator might raise the question why they should not be permitted to do so legally.

"It is difficult to understand why Dentistry should be so jealous of its rights, privileges and prerogatives where thoroughly reputable and legitimate laboratories are concerned, laboratories which have no desire to encroach upon professional territory, and yet leave themselves exposed to attack by the very group which not only would like to but *is* taking denture patients away from them.

"In seeking legislation as a means of stopping illegal practice, the organized laboratories are not worrying exclusively about the profession. Every case an illegal practitioner gets is also one a reputable dental laboratory doesn't get—and these laboratories are wise enough to know that the only way they can get the denture work now going to the illegal practitioners is to force it back into legitimate channels—into the dental offices.

"License All Technicians"

"These laboratories also know that the only way to drive the illegal practitioners out of business, since practically all of them masquerade as dental laboratories, is to put the dental laboratory industry under strict state regulation, license all technicians, clearly define just exactly what a technician can and cannot do, and fix heavy penalties for anyone conducting a dental laboratory or doing a technician's work unlicensed.

"Such legislation would automatically drag all laboratories and all technicians out into the light. They could no more operate unlicensed than a man can conduct a dental office without a license and get away with it.

"The present method of dealing with illegal practitioners is patently a failure. The fact that they operate from hole-in-the-wall 'laboratories,' back

bedrooms, kitchens, and cellars, and the fact that they are not even listed in telephone directories make it almost impossible to detect them. The small number arrested in comparison with the large number operating proves that.

"When an illegal practitioner is caught, the punishment meted out, if any, is no deterrent. To the contrary most illegal practitioners emerge from a bout with the law with a booming 'practice,' thanks, in part, to the publicity they received in reports of their trials in dental journals.

"Legislation to Guarantee Quality and Skill

"Proper laboratory legislation would also remedy other conditions which are ruining the dental laboratory industry and dragging Dentistry down with it. If the industry were licensed, it would be impossible for anyone to open a dental laboratory until he had demonstrated his knowledge and skill and given evidence of good character. Today, there is nothing to prevent anyone who can pick up a second-hand set of instruments, a vulcanizer, casting machine, and lathe from opening a laboratory. It is done almost daily.

"These wild-cat shops are usually opened by incompetent assistants who would never be licensed as technicians; by equally incompetent graduates of schools of mechanical dentistry; by incompetent ex-office boys and apprentices.

"The miracle is that they get any business at all from the profession. What they do get is obtained purely on a price basis with the natural result that they rapidly resort to substituting inferior materials for those of recognized quality. The extent of the toll Dentistry has been paying substitutors can be gathered from the article in the August *Laboratory Technician* describing the protective measures adopted by the Essex County Dental Society in New Jersey.

"It is interesting to note that the Essex County Society did not pussy-foot, or try to get the boys to sign a code or adopt the Golden Rule. It devised a specification form that makes the laboratory legally liable for any departure from the specified materials.

"Since the profession has consistently opposed every attempt by dental laboratories to obtain regulatory legislation for themselves, the organized dental laboratories in New York have reached the point where they would like to see some aggressive dental society take the bull by the horns and actually get tough and demand that laboratories be made to conform to certain minimum standards of competency, skill, honesty, and ethics.

"Just how this imaginary dental society would go about it, the laboratories do not care. If the plan were formulated as the result of a thorough-going study of the conditions to be remedied, as suggested by Dr. Gies, it would head in the general direction of licensing of some kind.

"In fact, Dr. Gies, in the May *Laboratory Technician*, wrote: 'It is probable that this study would enable organized dentistry and the organized

commercial dental laboratories to develop a working agreement (code) on desirable relationships, amicable cooperation, just procedures, etc., under which could be established and maintained a mutually satisfactory means for the public accreditation (registration) of individual dental technicians and of individual dental laboratories.⁷

"But here again the real issue is side-stepped. What is needed is not so much the accreditation or registration of reputable dental laboratories as the outlawing of the shysters and incompetents. Dentistry knows today who the reputable laboratories are, but that does not prevent dentists from patronizing incompetent laboratories—if the incompetents are also price-cutters. And it would take more than a list of registered and approved laboratories to keep dentists from patronizing unregistered and unapproved laboratories.

"So long as incompetents are permitted to open dental laboratories, it is well they do receive *some* patronage from the profession; otherwise they would all turn to illegal practice. Boycotting unregistered laboratories would merely increase the number of illegal practitioners. The only solution lies in keeping incompetents, the raw material for future illegal practitioners, out of the laboratory industry. This requires state licensing."

The above article was copied in full in a Chicago laboratory monthly, the *Dental Craftsman*⁸ presumably to incite laboratory technicians preparatory to launching a campaign for statutory regulation in the State of Illinois.

The title, "Laboratories Need Regulation! If Not by Legislation, Then How?" does not suggest the arrogant laboratory organizations who voluntarily rushed to Washington, D. C., with their code in the days of the "Blue Eagle" (1933). It is rather the whine of a group that has never been willing to accept any arrangement that did not allow it the upper hand. The hearing on the N. R. A. Code presented by the Dental Laboratory Industry contains many statements contrary to the solicitude which the industry now expresses for the profession. It was then and is now an attempt to gain power; an effort on the part of an adjunct to dictate to the profession whom it serves.

The committee and the profession ask, why license? Other commercial or industrial enterprises having internal disputes, lack of effective organization, and destructive price-cutting, do not go to

⁸*The Dental Craftsman*, 13, 9; 1939 (March).

the state legislature for license. They organize their group as effectively as possible and fight their own internal battles. The dental profession is willing through discriminate patronage to assist the laboratories, if and when they correct their internal differences and approach the representative bodies of organized dentistry for support.

Why do laboratories and technicians seek license in order to control illegal practices which are already proscribed by all dental practice acts? (Some of these acts may need amending, but their purpose is clear.) No person, whether dentist or *laboratory technician*, may perform any intraoral phases of dental practice unless he has been trained, examined, and licensed to do so. Laboratory technicians who render dental service to the public are violating the intent if not the letter of the law. Why, then, should another law be enacted to make illegal those violations that are already illegal?

Law enforcement and not law enactment is imperative! Money which is being paid by the dental profession to prevent unlicensed persons from practicing dentistry is not being used for that purpose; it is being diverted into other channels where, at the moment, it may be more urgently needed. Would it be possible to earmark the license fee of twelve to fifteen thousand technicians to control the illegal practices of laboratory technicians in America? Licensure is easily obtained in lean times, since it is a source of much needed revenue. Enforcement, on the other hand, is obtained with difficulty because it involves expenditures. Is it logical to expect the enforcement of proposed technician licensing acts when we see existing dental practice acts unenforced, especially since both acts proscribe the same violations?

It is to be doubted whether the real aim of technicians is law enforcement. Other motives lie behind the laboratories' concern over the violation (or is it violation?) of dental practice acts. Dental laboratories, in their own words, "have no desire to encroach upon professional territory". They want to "put the dental laboratory industry under strict state legislation, license all technicians, clearly define just exactly what a technician can and cannot do, and fix heavy

penalties for anyone conducting a dental laboratory or doing a technician's work unlicensed." (See p. 214.) That is an innocent-sounding statement; yet, in Italy,⁹ it succeeded in locking the dentist out of his own laboratory. A pertinent question arises: what is "a technician's work?" A technician is an adjunct of the dental profession. He assists the dentist, when delegated to do so, by fabricating dental appliances according to the dentist's prescription. The work belongs to the dentist; if he preferred to do it himself the laboratory technician would have nothing to do. So called "technician's work" is in reality the dentist's work, temporarily entrusted to the technician on condition that it be done according to the dentist's instructions and specifications. It is now proposed that this work of the dentist shall become the legal prerogative of the dental technician. Once such licensure were granted, the dental profession would be at the mercy of its adjuncts, the technicians. Control of extra oral phases of prosthetic dentistry would pass to the technicians who could then dictate their own terms to the profession. Methods of processing, materials, prices, etc., would be determined by the technicians alone; the dentist would pay the bills. A dentist who desired to have his laboratory work done in his own office would be compelled to hire a licensed technician, or to do it himself.

Licensure of technicians is subversive of dentistry as it is now practiced. In its ad interim report¹⁰ in 1935 this committee stated:

A. "Prosthetic dentistry, in both its clinical and laboratory practice, has been and continues to be a legal and an inalienable part of the practice of dentistry. Dentists are qualified by education, experience, and license to do all of the necessary laboratory procedures in the practice of dentistry, and to maintain proficiency in all accredited improvements of these procedures.

B. "The commercial dental-laboratory has been utilized by dentists as a convenience.

C. "There are aggressive interests in the commercial dental-laboratory organizations that favor a change in the present unified status of dentistry which, if brought about, might open the way to further changes leading ultimately to the separation of prosthetic dentistry from dental practice,

⁹*J. Am. Col. Den.*, 2, 153; 1935 (April-July).

¹⁰*J. Am. Col. Den.*, 2, 1; 1935 (April-July).

thereby lowering the quality of oral health-service below the accepted professional standards.

D. "Dentistry is fully cognizant of the oral-health needs of the public, and of the qualitative and quantitative aspects of the oral health-service which should be rendered under changing social conditions. The dental profession is undertaking to meet its expanding social obligations while, at the same time, maintaining an effective system of production and distribution of oral health-service based on a sound professional concept."

Nothing has occurred since then to change the committee's views concerning the unity of the dental profession. We insist that the proposed licensure of technicians carries a threat against the unity of dentistry, especially if politically-controlled socialized or insurance dentistry should become a reality. This has happened in England and Germany and, no doubt, there are interests anticipating such changes in America.

A joint study of the profession-technician problem will bring together two groups, each with its own objectives: the profession anxious to preserve its own unity and to protect the oral health of the public; the technicians, insistent on licensure, eager to obtain control of certain phases of dentistry—a control which in the future might disrupt the unity of dental practice and lower the quality of prosthetic oral health service to the public. In view of these facts it is evident that the suggestions of Walker and Gies will not satisfy the present aspirations of the dental laboratories and technicians.

III. *Illinois Technicians Sponsor Licensing Bill*

Force is added to the arguments of the preceding chapter by the present attempt of the Illinois laboratories and technicians to obtain statutory regulation through Senate Bill No. 337. The essential details follow. In September, 1938, the president of the Chicago Dental Society appointed the Dental Laboratory Commission, consisting of five dentists, to meet with the Executive Committee of the Dental Laboratory Association for the purpose of discussing mutual problems of the profession-technician relationship. Meetings were held and problems were discussed but no conclusions were reached.

In March, 1939, the Laboratory Association drafted a Dental Laboratory Service Act with the help of their advisors who advised that the Dental Practice Act was not strict enough to control illegal activities of certain technicians. On April 7, 1939, representatives of the laboratories, having been requested to do so, met with the board of directors of the Chicago Dental Society. The laboratory representatives were censured for obtaining numerous petitions favoring their proposed act from the dental profession and were requested to drop their plan for licensure. The society's legal advisor stated that the Dental Practice Act as amended would be adequate to secure conviction of violators; the laboratory advisors argued that it was not adequate.

Several other meetings failed to produce an agreement between the society and the laboratories. On April 18, 1939, the Dental Laboratory Service Act was introduced into the Illinois State Senate. The Chicago Dental Society opposes the bill and the laboratories and technicians support it. The original Senate Bill 337, as published in *The Dental Craftsman*, follows:¹¹

SENATE BILL 337

TO REGULATE DENTAL LABORATORY SERVICE

*Be it enacted by the People of the State of Illinois, represented
in the General Assembly:*

Section 1. *Dental Laboratory Service Defined:* It shall be unlawful for any person, firm or corporation to engage in dental laboratory service in the State of Illinois unless the person, firm or corporation shall have a valid recorded license or certificate for such purpose as provided for in this Act. A person, firm or corporation engages in dental laboratory service within the meaning of this Act:

A. Who shall construct, furnish, duplicate, supply, repair, alter, or reproduce prosthetic appliances, bridges, dentures, or other mechanical restorations to be used, applied, or worn as substitutes for natural teeth in the human mouth; or

B. Who shall construct, furnish, duplicate, supply, repair, alter, or reproduce prosthetic appliances, bridges, dentures, or other mechanical structures

¹¹*The Dental Craftsman*, 13, 7; 1939 (April).

to be used, applied, or worn for the correction of deformity, malposition, or physical condition of the human jaw, teeth, gums, lips, or palate; or

C. Who, as owner, operator, manager, or employee of an establishment under the designation, style or name of "dental laboratory," or any other term implying the same, renders any of the above named services.

Paragraphs "A" and "B" of Section 1 of this Act shall not be construed to include the following:

- a. Dentists licensed under the laws of the State of Illinois; or
- b. Instructors in dental colleges, of this State approved by the Department; or
- c. Persons engaged in dental laboratory service in the discharge of their official duties for the United States Army, United State Navy, United States Public Health Service, or United States Veterans Bureau.
- d. Persons who render dental laboratory services exclusively for not more than one dentist.

Section 1-a. *Unlawful Service*: A. It shall be unlawful for any person, firm or corporation to construct, furnish, duplicate, supply, alter or reproduce prosthetic appliances, bridges, dentures, or other mechanical restorations or structures, set forth in Section 1 of this Act, except upon casts or models furnished by, or from impressions taken by licensed and registered dentists; and

B. It shall be unlawful for any person, firm or corporation, engaged in dental laboratory service, to advertise, sell or deliver to the public such prosthetic restorations or orthodontic appliances or structures, or the services rendered in the construction, supply, repair, alteration or reproduction thereof.

Section 2. *Powers and Duties of the Department*: The Department of Registration and Education shall exercise, but subject to the provisions of this Act, the following functions, powers and duties:

A. Conduct oral, written or practical examinations to ascertain the qualifications and fitness of applicants for certificates of registration as technicians, and pass up the qualifications of applicants for licenses, certificates and authorities.

B. Prescribe rules and regulations for a method of examination of candidates.

C. Conduct hearings on proceedings to revoke or refuse renewal of licenses, certificates or authorities of persons applying for registration or registered under the provisions of this Act and to revoke or refuse to renew such licenses or certificates or authorities.

D. Formulate rules and regulations when required in any Act to be administered.

None of the foregoing functions, powers or duties enumerated shall be exercised by the Department of Registration and Education except upon the action and report in writing of the Examining Committee which shall be composed of persons designated and appointed from time to time by the Director of Registration and Education to take such action and to make such report for the profession involved herein, as follows:

Six persons, consisting of three licensed dentists, who shall have been for at least ten years immediately preceding their appointment, engaged in the practice of dentistry in this State; and three master technicians, who shall have been for at least ten years immediately preceding their appointment, engaged in the occupation of constructing dental prosthetic appliances.

The members of the Examining Committee shall be appointed as follows: One dentist and one technician for three years; one dentist and one technician for two years; and one dentist and one technician for one year. As their respective appointments expire, their successors shall be appointed to serve for three years. Vacancies occurring for any cause shall be filled for the unexpired term.

The action or report in writing of a majority of the Committee designated shall be sufficient authority upon which the Director of Registration and Education may act.

In making the appointments to the Examining Committee, the Director shall make such appointments from a list of recommendations submitted by the Illinois State Dental Society and the Dental Laboratory Association of Illinois. Each organization shall submit at least five names for each of its respective appointments on the Examining Committee. In the event of a vacancy, each organization, shall for each of its respective appointees, submit at least five names for each vacancy on the Committee within thirty (30) days from the date of the occurrence of such vacancy. If either organization shall fail to present a list of recommendations within the prescribed time, the Director shall fill the vacancy by the appointment of a dentist or technician of his own preference.

Whenever the Director is satisfied that substantial justice has not been done in an examination or in the revocation of, or refusal to renew, a license, certificate or authority, he may order a re-examination or rehearing.

The Department of Registration and Education shall keep a register containing the name of each person, firm, association or corporation licensed to maintain or operate a Dental Laboratory, and also a list of all technicians duly registered pursuant to the provisions of this Act, which register shall be open to the inspection of the public at all reasonable times.

Section 3. *Certificates, Requirements. Issuance:* The Department of

Registration and Education shall demand that every applicant for a certificate under this Act shall:

A. Have completed the educational work and successfully passed the examinations required for graduation from the eighth grade of the elementary schools of the State of Illinois, or an educational standard equivalent thereto; and

B. Submit a recent picture, duly identified and attested; and

C. Present satisfactory evidence of technical skill by practical demonstration before the Examining Committee designated to conduct such examination.

The Department of Registration and Education shall issue to each person, qualified and registered under this Act, a certificate in the form of a pocket card. Such card, among other things, shall contain: the name and address of registrant; and the name and address of the dental laboratory or dentist by whom the registrant is employed; and an imprint of the seal of the Department; and such other matter as shall be prescribed by the Department. Notice in writing, shall be given to the Department by the Registrant, of any change of business address, whereupon the Department shall issue a new card for the unexpired period, without charge. A change of business address, without notification to the Department within ninety (90) days from the date of such change, and without the issuance of a new card by the Department, shall automatically cancel the card theretofore issued.

Section 4. *Dental Laboratory. License For. Fees, Duties:* On and after July 15th, 1939, it shall be unlawful for any person, firm or corporation to operate a dental laboratory, which renders dental prosthetic service to or for more than one dentist, without first having applied for and obtained a license for such purpose from the Department. Application shall be on the form prescribed by the Department and accompanied by the required fee as set forth in Section 12 of this Act.

A license issued under the provisions of this Act to a dental laboratory shall not be assignable, to other parties.

A dental laboratory under this Act shall operate under the direct supervision of a master technician or a dentist licensed under the laws of Illinois.

All technical services rendered in a dental laboratory shall be performed only upon inert materials by registered technicians or dentists licensed under the laws of Illinois.

It shall be the duty of any person, firm or corporation operating a dental laboratory in the State of Illinois to make an annual report to the Department setting forth the names of the officers, members, or employees of such dental laboratory, and whether or not they are respectively, actively, engaged in

dental laboratory service; and as to the names of persons employed as technicians under this Act. The failure so to do by *March 1st of each year* shall be cause for suspending the license of such dental laboratory.

Section 5. *Master Technicians. Assistant Technicians. Fees:* On and after July 15th, 1939, it shall be unlawful for any person to engage in dental laboratory service as master technician or assistant technician without having applied for and obtained a certificate of registration for such purpose from the Department.

Every person who applies for an original certificate or registration as master or assistant technician shall personally appear before the Department for examination by the Examining Committee to determine his competency. Provided, that any person, who has been engaged in dental laboratory service as a technician in the United States or Canada for six (6) years, immediately preceding the effective date of this Act may be certified as a master technician without examination, if application is made within ninety (90) days from the date this Act shall become operative; and provided, further, that any person, who has been actively engaged in dental laboratory service as a technician in the United States or Canada for three (3) years immediately preceding the effective date of this Act, may be certified as an assistant technician without examination, if application is made within ninety (90) days from the date this Act shall become operative.

No original certificate as master technician shall be granted unless the applicant submits satisfactory proof, in addition to all other requirements of this Act, that he has been actively engaged in dental laboratory services for not less than six (6) years immediately preceding the date of his application. The fee for certification as master technician shall be five dollars (\$5.00), and the annual renewal fee therefor shall be two dollars (\$2.00).

No original certificate as assistant technician shall be granted unless the applicant submits satisfactory proof, in addition to other requirements of this Act, that he has been actively engaged in dental laboratory service for not less than three (3) years immediately preceding the date of his application. The fee for certification as an assistant technician shall be three dollars (\$3.00), and the annual renewal fee therefor shall be two dollars (\$2.00).

Section 6. *Apprentice Technician. Requirements:* On and after July 15th, 1939, it shall be unlawful for any person to engage in dental laboratory service as an apprentice technician without having first applied for and obtained a certificate of registration for such purpose from the Department.

An apprentice technician under this Act shall engage in dental laboratory service only under the direct supervision of a licensed dentist, or a master technician having a certificate of registration as provided in this Act.

Any person who has been engaged in dental laboratory service less than three (3) years, immediately preceding the effective date of this Act, may be certified as an apprentice technician without examination; provided that application for such certificate is made within ninety (90) days from the date this Act shall become operative.

The fee for certification as an apprentice technician under this Act shall be one dollar (\$1.00); and the annual renewal fee therefor shall be one dollar (\$1.00).

Section 7. *Licenses and Certificates. How Construed:* A license issued to a dental laboratory shall not be construed as a property right but as a valuable right contingent upon compliance with the provisions of this Act.

A certificate authorizing the holder thereof to engage in dental laboratory service shall not be construed as a property right but as a valuable right contingent upon compliance with the provisions of this Act by the registrant.

Certificates of registration of persons, engaged in dental laboratory service, in the employ of another person, an association, a co-partnership, or a corporation shall be issued to show that such person is so employed.

The issuance of a license or certificate to engage in dental laboratory service shall be construed as a permit to engage in and render a service for licensed dentists only.

All licenses and certificates issued in accordance with the provisions of this Act shall be for the calendar year. Any license or certificate so issued may be renewed upon the application of the holder thereof upon payment to the Department of the required fee.

Section 8. *Original Issuance of Certificate; Review; When:* At any time within six months, but not thereafter, after the issuance of an original certificate of registration without examination as provided herein, the Department may upon its own motion, and shall upon the verified complaint, in writing, of any person, provided such complaint or such complaint together with evidence, documentary or otherwise, presented therewith, shall make out a *prima facie* case that the registrant is unworthy to hold such certificate, notify the registrant, in writing, that the question of his integrity and technical ability shall be reopened and determined *de novo*. Such written notice may be served by delivery thereof personally to the registrant or by mailing same by registered mail to the last known address of the registrant. Thereupon the Department may require and procure further proof of the registrant's integrity and technical ability, and if such proof shall not be satisfactory such certificate shall be recalled and shall thereafter be null and void. Upon the recall of any such certificate it shall be the duty of the registrant to surrender to the Department of Registration and Education such pocket card received by him under the provisions hereof.

Section 9. *Refusal to Issue. Suspension or Revocation of License:* The Department may refuse to issue a license or certificate provided for in this Act, or may revoke or suspend the same if issued to a person, firm or corporation who has been found guilty of one or more of the following offenses:

A. Fraud in procuring license or certificate; or

B. Employing, procuring, inducing, aiding or abetting a person, firm or corporation not holding a license or certificate to engage in dental laboratory service contrary to the provisions of this Act; or

C. Violation of any of the provisions of this Act.

Section 10. *Licenses; Registration; Fees:* The holder of a license issued by the Department as herein before provided, shall within ninety (90) days from the date of issue, cause such license to be recorded with the county clerk of the county in which such person engages in dental laboratory service. The county clerks of the several counties in this State are authorized to charge, for registering such license, a fee of twenty-five cents (25c) for each registration. The holder of a license issued under this Act shall cause the same to be displayed in a conspicuous place in the laboratory where the holder shall engage in dental laboratory service. The holder of a license or certificate shall exhibit the same to any properly authorized representative of the Department of Registration and Education whenever requested.

Section 11. *Failure or Refusal to Register License:* Any failure, neglect, or refusal on the part of any person obtaining a license, to engage in dental laboratory service, to register such license with the county clerk of some county in this State, within ninety (90) days from the date of issue of the same, or to notify the Department of any change of address within ninety (90) days thereof, as above directed, shall work a forfeiture of such license. No license when once forfeited shall be restored except upon payment, to the Department, of the sum of ten dollars (\$10.00) for such neglect, failure or refusal to register such license, and the surrender of such forfeited license.

Section 12. *Fees for Licensure. Certification. Examination:* In order to provide the means for carrying out and enforcing the provisions of this Act, the Department shall charge each person applying to it for license to operate a dental laboratory in this State, a license fee of twenty-five dollars (\$25.00), plus one dollar (\$1.00) for each employee. The annual renewal fee for such license shall be twenty-five dollars (\$25.00) plus one dollar (\$1.00) for each employee, computed upon the average number of employees of the previous calendar year. The Department shall charge for certification as master technician a fee of five dollars (\$5.00), and the annual renewal fee therefor shall be two dollars (\$2.00). For certification as assistant technician, the Department shall charge a fee of three dollars (\$3.00), and the annual renewal fee therefor shall be two dollars (\$2.00). An apprentice technician under this

Act shall pay a registration fee of one dollar (\$1.00) and an annual renewal fee of one dollar (\$1.00). A fee of two dollars (\$2.00) for every duplicate license or certificate issued, shall be charged by the Department. The fee for issuing a certified copy of a license or certificate showing registry under this Act shall be two dollars (\$2.00), and in each case the fee shall be paid before the certified copy shall be issued.

Out of the funds coming into possession of the Department under the provisions of this Act the members of the Examining Committee shall each receive as compensation the sum of ten dollars (\$10.00) for each day actually engaged in the duties of the office, and all legitimate and necessary expense incurred in attending the meetings of the said Examining Committee.

Section 13. *Procedure in Suspension or Revocation:* The Department may upon its own motion and shall upon the verified complaint, in writing, of any person setting forth facts which, if proven, would constitute grounds for refusal, suspension or revocation, investigate the actions of any person holding or claiming to hold a license or certificate. The Department shall, before refusing to issue, suspending or revoking any license or certificate, at least ten (10) days prior to the date set for the hearing, notify in writing the applicant or the holder of such license or certificate of any charges made and shall afford such accused person an opportunity to be heard in person or by counsel in reference thereto. Such written notice may be served by delivery of the same personally to the accused person, or by mailing the same by registered mail to the place of business last specified by the accused person in his last notification to the Department. At the time and place stated in the notice, the Examining Committee designated by the Director of Registration and Education, as provided in this Act, shall proceed in hearing the charges. Both the accused person and the complainant shall be accorded ample opportunity to present in person or by counsel, such statements, testimony, evidence and arguments as may be pertinent to the charges or to any defense thereto. The Committee may continue such hearing from time to time. If the Committee shall not be sitting at the time and place stated in the notice or at the time and place to which hearing shall have been continued, the Department shall continue such hearing for a period not to exceed thirty (30) days.

Section 14. *Procedure. Power of Subpoena. Oaths:* The Department shall have power to subpoena and bring before it any person in this State to take testimony either orally or by deposition, or both, with the same fees and mileage and in the same manner as prescribed by law in judicial procedure in civil cases in courts of this State.

The Director, Assistant Director, Superintendent of Registration and any member of the Examining Committee shall each have the power to administer oaths to witnesses at any hearing which the Department is authorized by law

to conduct, and any other oaths required or authorized in any Act administered by the Department.

Section 15. *Court of Jurisdiction*: Any Circuit or Superior Court or any judge thereof, either in term time or vacation, upon the application of the accused person or complainant or of the Department, may by order duly entered, require the attendance of witnesses and the production of relevant books and papers before the Department in any hearing relative to the application for or refusal, recall, suspension or revocation of license or certificate of registration, and the court or judge may compel obedience to its or his order by proceedings for contempt.

Section 16. *Stenographer. Transcript. Fees for*: The Department, at its expense, shall provide a stenographer to take down the testimony and preserve a record of all proceedings at the hearing of any case wherein a license or certificate is revoked or suspended. The notice of hearing, complaint and all other documents in the nature of pleadings and written motions filed in the proceedings, the transcript of testimony, the report of the Committee and the orders of the Department shall be the record of such proceedings. The Department shall furnish a transcript of such record to any person interested in such hearing upon payment therefor of twenty-five cents (25c) per one hundred (100) words for each original transcript and eight cents (8c) per one hundred (100) words for each carbon copy thereof ordered with the original: Provided, that the charge for any part of such transcript ordered and paid for previous to the writing of the original record thereof shall be eight cents (8c) per one hundred (100) words.

Section 17. *Report of Examining Committee*: The Committee shall present to the Director its written report of its findings and recommendations. A copy of such report shall be served upon the accused person, either personally or by registered mail as provided in this Act for the service of the citation. Within twenty (20) days after such service, said accused person may present to the Department his motion in writing for a rehearing, which written motion shall specify the particular grounds therefor. If said accused person shall order and pay for a transcript of the record as provided for in Section 16, the time elapsing thereafter and before such transcription is ready for delivery to him shall not be counted as part of such twenty (20) days.

Whenever the Director is satisfied that substantial justice has not been done, he may order a rehearing. At the expiration of the time specified for filing a motion for a rehearing the Director shall have the right to take the action recommended by the Committee. Upon the suspension or revocation of his license or certificate of registration, a registrant shall be required to surrender his license or certificate of registration to the Department, and upon his failure

or refusal so to do, the Department shall have the right to seize the same.

At any time after the suspension or revocation of any license or certificate, the Department may restore it to the accused person without examination, upon the written recommendation of the Examining Committee.

Section 18. *Power of Review. Writ of Certiorari:* The Circuit or Superior Court of the county wherein the accused resides shall have power to review any order of revocation or suspension and all questions of law and fact thereon by writ or certiorari to the Department, provided that if the accused person is not a resident of this State and the venue is not otherwise fixed herein, such venue shall be in Sangamon County.

Such writ shall be issued by the Clerk of the Court upon præcipe and it shall be served at least ten (10) days before the return day thereof. Service upon the Director, Assistant Director or Superintendent of Registration shall be service on the Department. Such suit shall be commenced within twenty (20) days of the accused person's receipt of notice of the order of refusal, revocation or suspension. The Department shall not be required to certify the record of its proceedings unless the accused person shall first pay to it the sum of five cents (5c) per one hundred (100) words of such record. Exhibits shall be certified without cost.

No department order of suspension or revocation shall be set aside or vacated on any ground not specified in the written motion for rehearing provided in this Act.

Section 19. *Order of Suspension or Revocation:* An order of revocation or suspension or a certified copy thereof, over the seal of the Department and purporting to be signed by the Director shall be prima facie proof that:

- A. Such signature is the genuine signature of the Director.
- B. That such Director is duly appointed and qualified.
- C. That the Committee and the members thereof are qualified to act.

Such proof may be rebutted. Such order of revocation or suspension shall be conclusive proof that all precedent and concurrent acts of Department officers and of the Committee necessary to the validity of such order were pursuant to authority conferred by the Director.

Section 20. *Appeal from Order of Court:* Appeals from all final orders and judgments entered by a Circuit or Superior Court in review of any order by the Department may be taken directly to the Supreme Court by either party to the action within sixty (60) days after service of a copy of the order or judgment of the Circuit or Superior Court, and shall be governed by the rules applying to other civil cases appealed to said Supreme Court, except that formal pleadings shall not be required.

The pendency of an appeal or writ of certiorari shall not of itself stay or

suspend the operation of any order of revocation or suspension; but during the pendency of such suit or appeal, the Circuit or Superior Court or the Supreme Court, as the case may be, in its discretion, may stay the operation of such order in whole or in part upon such terms and conditions as the court may prescribe. No such stay shall be granted by the court otherwise than after ten (10) days' notice to the Department and after a hearing.

Section 21. *Penalties*: Any person who shall engage or offer to engage in dental laboratory service in this State without having applied for and obtained a license or certificate for that purpose; or who violates any of the provisions of this Act, for which no specific penalty has been provided herein, shall be subject to prosecution before any court of competent jurisdiction, and shall, upon conviction, be fined for the first offense by any sum not less than one hundred dollars (\$100.00) nor more than two hundred (\$200.00) and for each subsequent offense shall be punished by a fine of not less than five hundred dollars (\$500.00) and not more than one thousand dollars (\$1,000.00), or by imprisonment in the county jail for not less than sixty (60) days nor more than six (6) months, or both fined and imprisoned at the discretion of the court. Any person, firm or corporation who violates any of the provisions of this Act may be restrained by permanent injunction.

Section 22. *Definitions*: For the purpose of interpretation of the Dental Laboratory Service Act and the rules and regulations pertaining thereto:

1. *Department*: Shall mean the Department of Registration and Education;
2. *Act*: Shall mean the Dental Laboratory Service Act;
3. *Committee*: Shall mean the Examining Committee appointed by the Director of the Department.
4. *Rule*: Shall mean a requirement set up by the Committee and approved by the Director of the Department;
5. *Regulation*: Shall mean a requirement set up by the Department;
6. *License*: Shall mean a grant or authorization issued by the Department to the person or persons operating a dental laboratory;
7. *Dental Laboratory*: Shall mean any office, shop, store, establishment, or other place of business, where any person, firm, or corporation is engaged in dental laboratory service as defined in this Act;
8. *Certificate*: Shall mean the grant or authorization issued to an individual as a technician;
9. *Technician*: Shall mean and apply to any person who is engaged in dental laboratory service, as defined in this Act. The term may be applied to: "master," "assistant," or "apprentice" technician.
10. *Advertise*: Shall mean the communication of any information or

knowledge to the public in a manner designed or intended to attract attention. It shall mean and pertain to the use of any public advertising media.

Section 23. *Legislative Intent*: This entire Act shall be deemed to be passed in the interest of the public health, safety and welfare; and its provisions shall be literally construed to carry out its object and purpose. Each section of this Act and every part of each section is hereby declared to be an independent section or part of section and the holding of any section or part thereof to be void or unconstitutional or ineffective for any reason shall not affect the validity or meaning of any other section or part of section in this Act.

Illinois Dental Practice Act Amendment

After the Dental Laboratory Service Act was introduced into the Senate, the dental profession introduced an amendment to the Dental Practice Act of 1909. The amendment is designed to cover the weakness of the older law in defining the practice of dentistry. The amendment, as published in the *Bulletin of the Chicago Dental Society*, follows:¹²

HOUSE BILL 903

For an Act to amend Section 5 of "An Act to regulate the practice of dental surgery and dentistry in the State of Illinois and to repeal certain Acts therein named," approved June 11, 1909, as amended.

Be It Enacted by the People of the State of Illinois, Represented in the General Assembly:

Section 1. Section 5 of "An Act to regulate the practice of dental surgery and dentistry in the State of Illinois and to repeal certain Acts therein named," approved June 11, 1909, is amended to read as follows:

Section 5. A person practices dentistry, within the meaning of this Act: (*who represents himself as being able to diagnose, treat, remove stains and concretions from teeth, operate, or prescribe for any disease, pain, injury, deficiency, deformity, or physical condition of the human teeth, alveolar process, gums or jaw, and who offers or undertakes by any means or methods to diagnose, treat, remove stains or concretions from teeth, operate, or prescribe for any disease, pain, injury, deficiency, deformity, or physical condition of the same, or to take impressions of the teeth or jaws; or who owns, maintains, or operates an office for the practice of dentistry; or who engages in any of the practices included in the curricula of recognized and approved*

¹²*Bul. Chicago D. Soc.*, 19, 38, 12; 1939 (April 28).

dental schools or colleges. The fact that a person uses any dental degree, or designation, or any card, device, directory, poster, sign, or other media whereby he represents himself to be a dentist, shall be prima facie evidence that such person is engaged in the practice of dentistry.)

(1) Who uses a dental degree, or designation, or card, device, directory, poster, sign, or other media whereby he represents himself as being able to diagnose, treat, prescribe, or operate for any disease, pain, deformity, deficiency, injury, or physical condition of the human tooth, teeth, alveolar process, gums or jaw; or

(2) Who is a manager, proprietor, operator or conductor of a place where dental operations are performed; or

(3) Who performs dental operations of any kind gratuitously, or for a fee, gift, compensation or reward, paid or to be paid, either to himself or to another person or agency; or

(4) Who uses a roentgen or X-Ray machine for dental treatment, roentgenograms or for dental diagnostic purposes; or

(5) Who extracts a human tooth or teeth, or corrects or attempts to correct malpositions of the human teeth or jaws; or

(6) Who offers and undertakes, by any means or method, to diagnose, treat or remove stains or concretions (accretions) from human teeth or jaws; or

(7) Who uses or administers local or general anesthetics in the treatment of dental or oral diseases or in any preparation incident to a dental operation of any kind or character. This provision shall not apply to Dental Assistants administering anesthesia under the direction of a dentist licensed under this Act; or

(8) Who takes impressions of the human tooth, teeth, or jaws or performs any phase of any operation incident to the replacement of a part of a tooth, a tooth, teeth or associated tissues by means of a filling, a crown, a bridge, a denture or other appliance; or

(9) Who furnishes, supplies, constructs, reproduces or repairs, or offers to furnish, supply, construct, reproduce or repair prosthetic dentures (sometimes known as "plates"), bridges or other substitutes for natural teeth, to the user or prospective user thereof.

(10) Who performs any clinical operation included in the curricula of recognized dental schools and colleges.

The fact that any person engages in or performs, or offers to engage in or perform, any of the practices, acts, or operations, set forth in this section, shall be prima facie evidence that such person is engaged in the practice of dentistry.

The following practices, acts, and operations, however, are exempt from the operation of this Act:

(a) The rendering of dental relief in emergency cases in the practice of his profession by a physician or surgeon, licensed as such and registered under the laws of this State, unless he undertakes to reproduce or reproduces lost parts of the human teeth in the mouth or to restore or replace (*in the human mouth*) lost or missing teeth in the mouth; or

(b) The practice of dentistry in the discharge of their official duties by dentists in the United States Army, the United States Navy, the United States Public Health Service, or the United States Veterans Bureau; or

(c) Dental schools or colleges as now conducted and approved, or as may be approved, by the Department of Registration and Education, and the practice of dentistry by students in dental schools or colleges approved by the Department, when acting under the direction and supervision of registered and licensed dentists acting as instructors; or

(d) The practice of dentistry by licensed dentists of other states or countries at meetings of the Illinois State Dental Society or component part thereof, alumni meetings of dental colleges, or any other like dental organizations, while appearing as clinicians; or

(e) The use of roentgen (*and*) or other rays for making (*radiograms*) roentgenograms or similar records of dental or oral tissues provided, that such services shall not be offered to the public by any name whatsoever, as an aid or inducement to secure dental patronage; and provided, further, that no corporation shall announce to the public that it has, leases, owns, or operates a roentgen or X-Ray machine for the purpose of making dental roentgenograms of the human teeth or tissues of the oral cavity, or administering treatment thereto for any disease thereof; or

(f) (*The making of artificial restorations, substitutes, appliances, or materials for the correction of disease, loss, deformity, malposition, dislocation, fracture, injury to the jaws, teeth, lips, gums, cheeks, palate, or associated tissues or parts, either upon orders, prescriptions, casts, models, or from impressions furnished by a licensed and registered dentist.*)

The making and repairing of prosthetic dentures, bridges, artificial restorations or other structures to be used or worn as substitutes for natural teeth, or appliances for the correction of disease, loss, deformity, malposition, dislocation, fracture of or injury to the jaws, teeth, lips, gums, cheeks, palate, or associated tissues or parts upon order or prescription given by a licensed and registered dentist and constructed on, or by use of, casts or models made from impressions taken by a licensed and registered dentist; provided, that such prosthetic or orthodontic appliances, or the services rendered in the con-

struction, repair or alteration thereof shall not be offered for sale, or use, or delivery to the public. And provided further that such prosthetic or orthodontic appliances shall not be placed or adjusted in the oral cavity, except by licensed and registered dentists.

The editor of the *Bulletin of the Chicago Dental Society*¹³ discusses the issues involved in the proposed laboratory bill under the caption, "Dentists and Dental Laboratories".

"DENTISTS AND DENTAL LABORATORIES"

"The Board of Directors of the Chicago Dental Society has officially expressed its opposition to legislation designed to license laboratories and register dental technicians. The membership present at the regular meeting of April 18 unanimously confirmed that position.

"Without consulting the Chicago Dental Society, which had established a Dental Laboratory Commission for just such a purpose, the laboratory group circulated dentists throughout the state with petitions. These requested favorable consideration from legislators for a new bill to license laboratories and register technicians. In many cases members were asked to sign these petitions under the uninformed assumption that the only objective of the proposed law was to abolish the illegal laboratory which serves the public directly. This assumption, however, is not justified on the basis of a more exhaustive analysis of the proposed laboratory bill.

"Again without consulting the Chicago Dental Society, the laboratory group caused this legislation to be introduced in the State Senate as S. B. 337, where it now awaits action.

"After the opposition of the Chicago Dental Society was made known to the laboratory group and after a more suitable method had been proposed for the elimination of the illegal laboratory, the laboratory group still continues its efforts to secure passage of S. B. 337. It would seem, therefore, that some comment is necessary in order to define the issues.

"There is common agreement as to the necessity of action against the illegal laboratories. There is disagreement, however, and a vital one, as to the best method by which this objective can be most effectively attained.

"The Illinois State Dental Society, in consultation with this Society and competent attorneys, has given the opinion that a new definition of dentistry in the present Dental Practice Act would be most competent to correct the present difficulties. Such a new definition has already been introduced into the legislature as House Bill 903, and is reproduced elsewhere in this issue. It is this bill which should be supported by the membership.

¹³*Bul. Chicago D. Soc.*, 19, 38, 15; 1939 (April 28).

"The laboratory group, however, apparently believes that the best procedure to attain the same end would be to license laboratories and register technicians over the opposition of organized dentistry. This is what S. B. 337 attempts to do. If this laboratory group legislation had, as its only effect and purpose, the abolition of the illegal laboratory, there could be little disagreement. The fact remains, however, that the laboratory legislation, designedly or not, provides a potential method for the practice of dentistry by technicians. It can also lead to the establishment of two levels of dental practice in which the technician as well as the dentist will participate. Other dangers, not as ominous as these, will reveal themselves on closer examination.

"Members of the Society will do well to consider the propriety of the laboratory group in the actions it has taken thus far to secure the passage of this licensing legislation. They will do well to study the possible consequences of such legislation before signing petitions or otherwise aiding in its passage. They will do well to accept the judgments in this matter of their Society, of the Illinois State Dental Society, and of competent attorneys in preference to those of outside agencies.

"House Bill 903 should be adopted. Senate Bill 337 should be defeated. Members will serve the interests of the public, their own interests, and the interests of the entire dental profession if they will work to that end."—
HAROLD HILLENBRAND.

Commenting further on this proposed licensure the editor of the *Bulletin of the Chicago Dental Society*¹⁴ calls this effort a "Gesture of Independence" as follows:

"GESTURE OF INDEPENDENCE

"A dental laboratory group, under the pretext of securing legislation to abolish the dental laboratory that serves the public directly, caused to be prepared a bill to license dental laboratories and register dental technicians. After an examination of the proposed measure, the Board of Directors of the Chicago Dental Society discovered many provisions detrimental to the welfare of the public and of the profession. The Board then expressed its official opposition to the proposed act. This decision of the Board was presented to the Society at a regular meeting in which the laboratory group was represented and participated. The Society, in a formal vote after hearing the arguments of the laboratory group, unanimously supported the decision of the Board and expressed its official opposition to the proposed measure.

"The Legislative Committee of the American Dental Association has

¹⁴*Bul. Chicago D. Soc.*, 19, 41, 11; 1939 (May 19).

issued an opinion that legislation of the type proposed should not be adopted. The Committee on Legislation of the Illinois State Dental Society has also expressed its opposition to passage of the proposed laboratory act.

"In spite of this unanimity of opposition by the dental profession, the laboratory act was introduced into the state legislature as Senate Bill 337, where it is now being considered by the Committee on License and Miscellaneous. Considerable effort has been made to have the bill reported favorably out of committee and to insure its passage by the state legislature.

"It is difficult to interpret this action of the laboratory group as anything else than a mark of contempt for the principles that organized dentistry has put forth in its opposition to the bill. It is the first step of the laboratory group to an independence that can lead directly to the dispensation of various dental services to the public without the intervention of the dentist. It is the final gesture in a long campaign in which some laboratory interests have derided the professional objectives and ethics of dentistry in favor of a high pressure method to "sell" dentistry at whatever cost to the public or to the profession.

"If evidence of this derisive attitude is needed, we cite the following. In the original act, the examining board for technicians was to be made up of three dentists and three technicians. At the worst this was an assignment of equality to dentistry in a field in which it has serious reasons to be concerned. In an amendment to the act which has been proposed, the examining board is to be composed of two technicians and one dentist. This removes even a pretense at giving dentistry an equal voice in the decisions that would be made by the board. In the spirit of the day, this bill assigns dentistry to a minority position.

"Some dentists have given well-intentioned but misinformed support to the bill. They had elected to give credence to all of the high principles enunciated by sponsors of the legislation, and to disregard the potential dangers to the practice of dentistry. Now the amendment reveals more clearly the actual objectives of the act. No dentist, in the face of that knowledge, can do other than to oppose, actively and effectively, the passage of Senate Bill 337."—HAROLD HILLENBRAND.

This editorial was answered by the editor of *The Dental Craftsman*¹⁵. The reply is here given in full so that the laboratory viewpoint may be understood when future negotiations take place:

¹⁵*The Dental Craftsman*, 13, 8, 14; 1939 (May).

ANSWERING "THE EDITORIAL" IN THE BULLETIN

"Some statements were made in *The Bulletin of the Chicago Dental Society*, May 19, 1939, which we feel need further amplification—and some comment on our part.

"First of all, we should like to know specifically *which* provisions in the proposed Dental Laboratory Service Act are detrimental to the welfare of the public and the profession.

"Those opposing our proposals have expressed the following objections:

"(1) 'We are opposed to this legislation. We will continue to oppose it, unalterably.'

"(2) 'We think the present Dental Practice Act is adequate, but simply has not been enforced.'

"(3) 'We consider the proposed dental laboratory legislation as a possible opening wedge to the practice of dentistry.'

"(4) 'We don't like it because you did not come to us with this matter, until after you had obtained signatures on the petitions.'

"(5) 'We will oppose this legislation in every way we can, because we will not surrender to others any part of dentistry.'

"We have tried to answer these objections, in the following manner:

"(1) You have offered *objections*, but they are chiefly hypothetical objections, based on what *might* happen in the future—not what is happening at present.

"(2) If the Dental Practice Act is adequate to stop the disgracefully successful attack upon dentistry, that has been made by 'mail order dentists' and advertising dental laboratories," surely there has been gross neglect on the part of some one. We are offering to *augment* and *strengthen* the Dental Practice Act with the *Dental Laboratory Service Act*.

"(3) 'If you wish to rob a neighbor's hen roost you do not put shackles around both legs,' some one has said.

"We have asked the legislature to pass a law that defines dental laboratory service and *makes it unlawful for any dental laboratory to render that service, except to registered, licensed dentists*.

"We believe that this is a *restrictive* measure—not an indication that we wish to 'invade' the domain of dentistry.

"(4) We circulated petitions among dentists, because:

"(a) We were told the legislators would be interested in knowing that many dentists approved our action.

"(b) We wanted to get an expression from our *customers*—the 'rank and file' in dentistry.

"(c) We assumed that the Board of Directors of the Chicago Dental Society could not make a decision promptly. Because our bill had to be filed immediately (or wait until 1941) we followed what was considered the most expedient procedure.

"(5) We see nothing in the *Dental Laboratory Service Act* that constitutes 'surrendering—prosthetics to an outside party.' Dental laboratories build most of the prosthetic appliances that go into the mouth. Dental laboratories operate as an industry. They have never been considered part of the dental profession. Their service may be legally construed as 'part of dentistry' when it is performed in the dental office—not in a commercial laboratory.

"Unless the undesirable elements can be eliminated promptly, the dental profession may have to admit that it has already surrendered prosthetics to outside interests—interests that are enemies of ethical dentists—not the allies that the reputable dental laboratories have always been and wish to continue to be.

"Dental manufacturers and dental supply houses cater only to members of the dental profession. Legitimate dental laboratories do likewise. How much difference is there between dental laboratories furnishing a dentist with restorative appliances and a dental house or manufacturer furnishing the dentist with other supplies? Does the dental profession feel that it has 'surrendered' anything in permitting the dental supply house or dental manufacturer to operate independently of the dental profession?

"If the dental profession really believes that dental laboratory service, regardless of where it is performed, is 'part of dentistry,' we believe that organized dentistry should provide proper standards and qualifications for the dental laboratory. In that event, organized dentistry itself should provide legislation that will accomplish what the Dental Laboratory Service Act should accomplish, if enacted.

"As evidence of what is called a 'derisive attitude' on our part, the objection is raised that our original suggestion for a board of examiners has been changed from three dentists and three technicians to two technicians and one dentist. Nothing is said about this change having been insisted upon by the Department of Registration and Education. If the Department is agreeable, we would raise no objection to having this provision changed to read two dentists and one technician—or even three dentists and no technicians—if that is considered practical.

"We thoroughly resent the implication that we have *ulterior* motives in seeking legislative relief for ourselves and our customers. We have sought legislation for two reasons only:

"(1) To do our part to clean up the racketeering elements in dentistry and in dental laboratory service.

"(2) To raise the standard of legitimate dental laboratory service by limiting it to licensed, registered dentists (not the public) and by setting up through the Department of Registration and Education, definite [an omission in original], just as has been done in many other industries and all the professions.

"If dentistry can and will accomplish these objectives, our proposed law is unnecessary."

The editor of the *Bulletin of the Chicago Dental Society* comments on the preceding answer as follows:¹⁶

"REASONING: A FINE ART

"In this issue will be found an article, dealing with the problem of licensing dental technicians, in which the author states that he considers such legislation as potentially dangerous to the dental profession. We suspect that this information will come as a surprise to those who have been sponsoring the local laboratory bill because they seem to have accepted the unanimous opposition of the dental profession as merely the ungrateful attitude of those who do not know what is good for them. Patiently and parentally, the laboratory groups continue to insist on doing dentistry a favor against its will.

"In a contemporary magazine¹⁷ appears an 'answer' to the recent editorial in the *Bulletin* which dealt with the laboratory-technician problem. The reasoning employed in it is typical of that which has characterized arguments in favor of registering dental laboratories and licensing dental technicians. It is casuistry of the highest order.

"Let us, for example, consider this selection from the 'answer.' 'You (dentists) have offered objections (to the bill), but they are chiefly hypothetical objections, based on what might happen in the future—not what is happening at present.'¹⁸

"Most men have a 'hypothetical objection' to having their homes burn down and take measures to insure themselves against destruction of this kind. If the reasoning in the above quotation were employed, insurance against fire would be silly merely because it 'might happen in the future' and was not 'happening at present.' We, and ten thousand insurance agents, refuse to accept this premise.

"Again, if we accept the type of reasoning employed by the laboratory

¹⁶*Bul. Chicago D. Soc.*, 19, 45, 13; 1939 (June 16).

¹⁷*Dental Craftsman*, 13, 14; 1939 (May).

¹⁸*Bul. Chicago D. Soc.*, 19, 11; 1939 (May 19).

group, one could have no valid objections to a coming war, merely because it was in the future; nor against homicide, or assault or watermelon-stealing for the same reason. If this is the basis of reason on which the laboratory bill was proposed, the 'unanimous opposition' of the Chicago Dental Society, the Illinois State Dental Society and the American Dental Association is easily understood.

"The writer of the 'answer' states that 'we should regret the issuance of ill spawned (sic) statements appearing in the *Bulletin* in opposition to the laboratory bill. Dentistry needs men who apply the truth privately, publicly and more especially in public print. Dentistry demands that its officers keep abreast of the times, and have the opinion of the average practitioner obtained through the medium of the referendum. By that means the society reflects the true expression of the man in the ranks.' We agree with everything in that statement but the rhetoric and the reasoning.

"We would like to know how the author of the 'answer' establishes his right to speak for both the dental profession and the laboratory interests. We would like to know why his opinion should carry more weight than the official opinion of the Chicago Dental Society. We would like to know if his knowledge of parliamentary law and the Constitution and By-Laws of the Chicago Dental Society does not inform him that the referendum, at the present time, is not the method used to determine the wishes of the membership. If the referendum is his objective, he should seek that and not the licensing of laboratories and the registering of technicians.

"We think it is time that the writer of the 'answer' decides whether he is Simon Legree or Little Eva. He does not do well in both roles."—H. H.

Our latest information on the Illinois profession-laboratory controversy is that Senate Bill 337, to license laboratories and register technicians, was defeated by the State Senate at first reading on June 24, 1939. Thus the fourth major attempt to obtain statutory regulation for the dental laboratories and technicians ends, as did the preceding efforts, in failure.

With the above information comes a report that the Illinois State's attorney's office raided one of Chicago's larger illegal laboratories during the week of June 19, 1939. Two owners pleaded guilty and agreed to discontinue their illegal practice by closing their offices. This successful enforcement of the Illinois Dental Practice Act discredits the many statements that the Dental Practice Acts are not effective in controlling illegal dental practice by technicians. This

test likewise sustains and justifies the action of the State Senate in defeating Bill No. 337. The integrity and unity of the profession have been momentarily preserved.

Doctor Walker again discusses the profession-technician problem under the caption, "We Need No Licensing for Laboratory Workers."¹⁹

"WE NEED NO LICENSING FOR LABORATORY WORKERS

By Alfred Walker, D.D.S.

"In the August, 1938, issue of *Oral Hygiene* there appeared an article entitled 'Action in Albany.' However well intentioned the author²⁰ may have been, he, by implication at least, did not present the true attitude of the profession toward efforts on the part of laboratory interests to establish statutory regulations for workers in and operators of commercial dental laboratories. There will be no denying that the situation which has arisen between the profession and the dental laboratory operators is becoming more acute, and that the dangers lurking behind current efforts to establish state licensure for laboratory workers are far too great to be ignored or dismissed by the dental profession.

"The major arguments advanced in support of the proposal for licensing are briefly:

"1. That the qualifications which would be required for licensing would insure a better product from the laboratory, and that the regulations proposed would reduce the number of unqualified operators and workers who, so it is claimed, make up the larger proportion of illegal practitioners in the prosthetic field.

"2. That, therefore, illegal practice by laboratory operators and workers which is on the increase would be lessened: it being contended that possibility of loss of license as a penalty for conviction of illegal practice would act as a more effective deterrent than do fine or imprisonment.

"The dental practice acts of the various states carefully define what constitutes the practice of dentistry and the qualifications required of those who may be licensed to practice. By these regulations it has been established that dental service may be rendered to the public only by those so licensed. The intent of the law is plain, and it has long been recognized that dentists alone are responsible to their patients for whatever service they may render. This applies to prosthetic practice whether the appliances be produced by the dentist himself or by others.

¹⁹*Oral Hygiene*, 29, 2, 175; 1939 (Feb.).

²⁰Voorhies, Jay: Action in Albany. *Oral Hygiene*, 28, 1001; 1938 (Aug.).

"We are told that because of the influx of unqualified persons into the laboratory trade, unfair competition has developed, which takes the form of substitution of materials and low wages to workers, which lead to low standards of workmanship—and dentists are accepting such products and passing them on to their patients. The implication is that, since the dentist is unwilling or unable to pass judgment on the merits of the product, it therefore becomes necessary for the protection of the public to set up new statutory regulations for the purpose of determining who shall enter the field of processing prosthetic appliances. In other words, because some members of the dental profession fail to fulfill their legal responsibilities it becomes a public duty for others to intervene.

"In the light of existing conditions, the contention that illegal practice by laboratory operators and employees would be lessened through the proposed regulations seems highly fallacious. It is common knowledge that laboratory operators find it expedient to yield to the demands of dentist customers, to take impressions, to adjust dentures, and to perform other illegal acts. They say that these transgressions are repugnant to them, but claim that if they do not include this service, their customers will trade with more accommodating laboratories. They insist, however, enactment of statutes which provide for revocation of license upon conviction of such practices would soon put an end to these illegal acts.

"Proponents of licensure further contend that those taught in trade schools cannot, because of their incompetence, find legitimate employment. In consequence, they readily yield to the temptation to practice dentistry illegally. This type is referred to as the 'hole in the wall' or 'hall bedroom' laboratory operator and is presumably quite numerous in the larger centers of population. The advocates of license requirement for laboratory workers tell us that under the regulations which they propose, these violators, not being qualified to receive licenses, would be driven into other fields.

"Let us examine these statements with a little care. Our present laws provide that a dentist who induces another to violate the dental practice act becomes a transgressor himself and thereby renders himself liable to the revocation of his license. To what extent have these penalties acted as a deterrent in the practice about which the laboratory interests complain?

"We believe that the modern laboratory is fulfilling a need and is here to stay. We are also mindful that there are just causes for the complaints which we are discussing, but we do not believe that the remedy lies in legislation of the kind proposed.

"As stated before, there are two forms of illegal practice which are being pursued. One is with the connivance and aid of a comparatively few dentists. If the dentists, on the one hand, would cease to be parties to these practices, and if, on the other hand, the laboratory operators and employees would observe the law and report to the authorities such violations or induce-

ments to commit violations as come to their knowledge, this form of practice would soon be reduced to trivial proportions.

"We cannot see how the other form, wherein the laboratory operator or employee serves the public directly, would be reduced by licensing laboratory workers. Rather, we believe that it would lead to an increase in this kind of violation, by the unlicensed. Since statutes are of no avail unless enforced, nothing will be gained by the mere enactment of the additional legislation. The real remedy lies in better cooperation between the dentists and laboratory operators. Existing laws amply cover the situation. Strict observance by both parties would be the sensible course. Should state legislatures view with favor the proposals of the laboratory interests, the blame must rest on those members of the dental profession who encourage unfair competition among the laboratories and upon those who insist on violations of the law as a condition of patronage."

The following editorial in the *Journal of the New Jersey State Dental Society*²¹ discusses this problem under the caption "No Room for a License". These views make available several additional arguments unfavorable to the licensing of laboratories and technicians.

"NO ROOM FOR A LICENSE

"It is a matter of record that lawmakers have little knowledge or understanding of the physiological and biological factors involved in a dental restoration. This was made evident when, under the NRA, the Commercial Laboratories Association was given a code. Thus it appears that, to the lawmakers, a denture is simply 'set of false teeth.'

" 'A primrose growing by the river's brim,
A yellow primrose was to him,
And nothing more.'

"The possibility, then, of the enactment of legislation that will bring dental and medical care under government dictation, gives a definite point to the demands of the commercial laboratory owners for some system of licensure that will establish mechanical dentistry as an independent industry. With the government in control of dentistry anything can happen, as has been demonstrated in those countries where private practice has been superseded by such control. One step leads to another, and it is but a short step from licensing a dental mechanic to work on inert matter outside the mouth, to licensing him to perform prosthetic work in the mouth. Who can say 'It can't happen here,' when the government is already entering into a con-

²¹J. N. J. D. Soc., 10, 3, 52; 1939 (April).

tract with commercial laboratories in New York to supply 35,000 dentures to indigents?

"It is urged by the laboratory owners that, with the technicians licensed, the better element in the laboratory industry would co-operate with the better element in dentistry to eliminate the illegal practitioner. This, of course, is a trading proposition and it cannot be accepted by dentistry because it would mean the elimination of the 'little fellows' in the laboratory field, the good along with the bad. This would give the large laboratory owners an unrestricted opportunity to control prices, and we know from the recent trend of laboratory prices that the sky would be the limit. The better element in dentistry is always willing to co-operate with the better element in the laboratory industry, in any project that promises to improve existing conditions, but it cannot be a party to any scheme that would materially increase the cost of dentistry to the public without any corresponding benefits accruing to the public.

"The situation is admirably summed up in an article by Dr. E. E. Hamilton, Allentown, Pa., from which Dr. Carr quoted in the July, 1938, issue of this *Journal*, and which reads as follows:

"There has never been but one justified reason for licensing any craft or profession, namely, for the protection of the public. As the dentist's license stands between the public and the dental laboratory technician there is no need for other protection; one license, the dentist's license is all that is necessary, the dentist is responsible, not the technician. The dental technician never sees the patient and every piece of his work is inspected, tried, and fitted by the dentist who is responsible for it. A license would be a needless expense to the public who would not benefit by it, but would have to pay the bill. The only class to benefit would be the technicians.'"

—C. F. H.

Statutory regulation of laboratories and technicians has been the subject of controversy for the past ten years. No joint study of the profession-technician relation can proceed far without raising the question of licensure. The proposed Laboratory Act, the amendment to the Dental Practice Act and the controversy relating to the present attempt and failure to secure statutory regulation is a pattern which may be followed in future encroachments upon the dental profession. Accordingly these have been recorded in detail for future reference.

IV. *Schools of Dental Technology*

In discussing the dangers inherent in licensing technicians we must not overlook one potential source of trouble, namely, the education of dental technicians. Any licensing law must define the qualifications of those who apply for licensure. Qualifications infer training and training requires schools or other acceptable means for preparation.

We have shown previously that laboratory leaders regard themselves as an industry separate and distinct from dentistry.²² Can any one believe that the commercial dental laboratory would employ technicians who had been trained in schools controlled by the dental profession?

The alternative and logical conclusion is that the industry would organize its own schools. This was done in Germany.

In fact, we need not wait for the future; we may now be witnessing the rise of schools for technicians in the mandatory licensing of already existing schools of dental technology in the State of New York.

In the past such schools of mechanical dentistry (as they are called) were denounced and ridiculed by dental laboratories. Laboratory writers have frequently stated that technicians from these schools could not find employment in dental laboratories because they were poorly trained. The laboratories knew that each graduate of such schools was a potential competitor; yet nothing was done about it until recently.

Now that these schools have complied with New York State's education law and have been licensed, three laboratory leaders together with three dentists are serving on a special advisory committee. Laboratory leaders were not slow to detect a potential threat to their unity and to lend their assistance in guiding such schools to their future advantage. Fortunately the dental profession has equal representation on the advisory committee, at present. Such representation in the future will be necessary to protect the interests of

²²*The Dental Craftsman*, 13, 8, 15; 1939 (May). See, also, this report, p. 238.

the profession. Two articles dealing with the licensing of schools of mechanical dentistry are reprinted for future reference:

"N. Y. STATE LAW COMPELS LICENSING OF SCHOOLS OF DENTAL
TECHNOLOGY

"Expert Control in Enforcement Urged by *The Laboratory Technician*

"Good news in the dental world today is indeed welcome. It is, without a doubt, good news to learn that several schools of mechanical dentistry in New York State have obtained licenses from the Education Department, and that other states may soon be compelled to follow the good example.

"Under section 66A of the Educational Law of New York (reprinted at the end of this article) the licensing of all trade schools in the State became compulsory in September, 1937. Schools of mechanical dentistry come within the application of the law and must fall in line—or just close up shop.

"For many years the Associated Dental Laboratories and *The Laboratory Technician* have battled for State control of all schools claiming to train dental technicians, as the only means to correct abuses prevalent among such schools, and to make them responsible and really useful institutions.

"That licensing is now compulsory is therefore most gratifying to us. We are particularly pleased with the trend toward strict and expert supervision indicated in the official rules for the enforcement of the law (also reprinted at the end of this article). We call attention to the following stipulation in the law: 'The State Board of Regents is hereby empowered to consult with trade experts as to the equipment provided and standards and methods of instruction offered.'"

The Laboratory Technician suggests:²³

"'To consult with trade experts' is a sound idea. In addition, we believe that the 'trade experts,' as far as schools of dental technology are concerned, should constitute a permanent body—that is, a permanent committee. It is the suggestion of *The Laboratory Technician* that a committee be appointed by the State, for a specified term of office, consisting of three members—a dentist, a practical laboratory man, and a representative of the Education Department—with supervisory and advisory powers regarding not only equipment and curricula, but also the type of advertising used to attract new students. This committee should be required to make frequent visits to the schools under its supervision for periodic advice and guidance, and to ascertain compliance with rules and regulations.

"We believe that through such a Supervisory Committee, with a judiciously chosen personnel, State control will have the following results:

²³*The Laboratory Technician*, 12, 1, 3; 1938 (Nov.).

"1. *Curb the number of misguided and misinformed men entering an already over-crowded industry:* It will make illegal that type of advertising which extracts high, and often hard-saved, tuition fees from young men with the lure of a guaranteed, well-paid job in a dental laboratory immediately after graduation.

"2. *Arrive at a curriculum to meet the practical, recognized needs of the reputable dental laboratory today.* Laboratory owners know, through sad experience, that 'graduates' of schools of mechanical dentistry have rarely been qualified for the most elementary jobs in a dental laboratory. Those who are hired usually must 'unlearn' most of what they have been taught; then only can they start from scratch, which they generally do unwillingly because of their exaggerated valuation of their previous training.

"3. *Prevent spread of price-cutting and illegal practice.* It is not surprising that a 'technician' of this type, rejected by the laboratories, is easily induced to set up a little shop of his own, and try to attract dental patronage by slashing prices. He soon discovers that such a course, plus his lack of experience, leads to financial ruin. His inevitable end is doing direct work in the mouth for friends and relatives—and another competitor is created for the profession!

"Through the prohibition of misleading advertising and the establishment of a practical, regulated curriculum by a State Supervisory Committee, as suggested, the outflow of the inadequately trained graduates who cannot find work will be checked, and the need for resorting to cut-rate work and illegal practice will, as a result, be stemmed.

"Achievements

"The need for correcting these abuses is urgent. However, we are glad to note that, even in the short time the licensing law has been in effect, definite strides have been made toward control.

"In the current advertising literature and correspondence of schools that have been licensed, wild and fantastic promises are no longer flaunted in the face of ambitious youth. However, there is still room for some toning down.

"Although the curricula are not officially under the supervision of representatives of professional and practical men, there has been particular stress laid on training students in practical laboratory methods and standard laboratory materials.

"Although it is too early to judge what the results will be regarding the desired curb on the spread of price-cutting and illegal practice, the trend is in the right direction, because of the eventual elimination of abuses at their roots—in the schools themselves.

"For More Control"

"For more secure control—for more direct regulation—we again urge the appointment of some kind of supervisory committee, consisting of representatives of the profession, laboratories, and State, along the lines outlined above.

"It is the earnest conviction of *The Laboratory Technician*, members of the Associated, and many of the far-sighted members of the profession who through the years have been tireless in their campaign for the licensing of schools of dental technology, that the expert, controlled application of New York's Private Trade School Law will prove of benefit to all—the dentist, the dental laboratory, and the individual technician."

"Profession-Laboratory Committee Named to Advise on Schools"

"In a recent article²⁴ *The Laboratory Technician* welcomed the good news that several schools of mechanical dentistry in New York had complied with the State's Education Law making the licensing of all trade schools compulsory.

"In that connection *The Laboratory Technician* pointed to the need of some sort of permanent committee to act in an advisory and supervisory capacity to regulate the curricula, equipment, advertising, and management of schools of mechanical dentistry, such committee to be appointed by the State and to be representative of the profession and the dental laboratory industry.

"The basis for *The Technician's* suggestion is the following stipulation in the State law: 'The State Board of Regents is hereby empowered to consult with trade experts as to the equipment provided and standards and methods of instruction offered.'

"It is gratifying to announce that, in line with this journal's recommendation, a special committee has been appointed by H. L. Amonette, Supervisor of Private Trade Schools, N. Y. State Education Department, consisting of the following members:

*"Representing the Profession—*J. A. Salzman, D.D.S., J. R. Schwartz, D.D.S., Alfred S. Walker, D.D.S.

*"Representing the Laboratories—*G. H. Sternberg, S. G. Supplee, H. K. Schwartz.

"With a personnel of such caliber, the prospects for this new committee are most hopeful. It can be confidently anticipated that many abuses prevalent among the schools and of common knowledge to all in the dental field, will be speedily and effectively remedied.

"The committee will have in its power the guidance of the advertising

²⁴*The Laboratory Technician*, 12, 3, 3; 1939 (Jan.).

policy of the schools and will be enabled to advise on the contractual arrangements made with entering students.

"The committee will also be empowered to work with the school authorities in planning a curriculum and in supervising the type of equipment and materials used for instruction purposes. In this way the schools will be able to meet recognized standards and needs, so that the graduates will be of real, practical value in a dental laboratory instead of proving, as frequently heretofore, entirely unqualified because of inadequate training.

"Curb Illegal Practice

"By stemming the outflow of inadequately trained graduates, it is expected the committee will be thereby instrumental in checking the spread of price-cutting and illegal practice. It has been inevitable that many a diploma-holding 'technician,' rejected by the laboratories, is easily induced to open up a price-slashing shop of his own and eventually wind up in a bit of 'private practice.'

"The schools of mechanical dentistry should welcome the cooperation of the newly-formed committee. The backing of the profession and of the dental laboratories will add immeasurably to the schools' prestige, reputation and authority. Such backing, as the schools well know, has been lacking in the past.

"With State licensing and committee supervision, and with the elimination of prevalent abuses, neither the profession nor the laboratories will have further reason for withholding moral support.

"A better type of student will be attracted to the schools. He will be attracted, not by wild and fantastic promises, but by the realization that because of his own temperament and innate mechanical ability, he is suited for his chosen career. He will be confident that the training he receives will, in a highly competitive industry, be adequate preparation, not a handicap.

"Good luck to the new committee! The industry in New York State (and other states may soon follow suit) can now look forward to some order in a field of chaos—to schools of dental technology that will become educational institutions, truly worthy of the name."

V. The Mail-Order Denture Business

Among other abuses that have crept into the practice of dentistry during the past few years, the mail-order denture business is again brought to our attention by an order handed down by the United States District Court of Appeals for the District of Columbia. The "U. S. Court of Appeals Reverses Decision and Again Closes the

Mails to S. B. Heininger" is the title of an article appearing in *The Bulletin of the Chicago Dental Society*,²⁵ which is copied in full below:

"U. S. COURT OF APPEALS REVERSES DECISION AND AGAIN CLOSES THE
MAILS TO S. B. HEININGER

"Decision Allowing Use of Mails to S. B. Heininger Is Over-ruled by
Higher Court in Washington, D. C.

"The United States mails are again closed to S. B. Heininger who conducted a mail-order denture business under a variety of names. This decision was handed down on April 17, 1939, by Associate Justice Miller of the United States District Court of Appeals for the District of Columbia, who reversed a previous decision and dissolved an injunction which permitted Heininger to carry on his practices.

"History

"On November 22, 1937, charges of fraud were presented in hearings conducted by the United States Post Office Department against S. B. Heininger. On February 21, 1938, a 'fraud' order was issued against Dr. Heininger, under a variety of names used in the conduct of his enterprise, refusing him the use of the United States mails. On June 3, 1938, Judge Peyton Gordon, of the Columbia District Court, issued a ruling granting to S. B. Heininger an injunction restraining the United States Post Office Department from enforcing the fraud order issued on February 21.²⁶ The present decision over-rules Judge Gordon's decision and dissolves the injunction, thus closing the United States mails to Heininger's enterprises once more."

"Decision

"The following is a major portion of the decision rendered by Associate Justice Miller:

"MILLER, Associate Justice: Appellee (Heininger) filed a bill in the lower court praying that a fraud order issued against him by the Postmaster General on February 19, 1938, be declared null and void and its enforcement enjoined. The lower court found that "There was no substantial evidence that plaintiff herein (appellee) was engaged in a scheme or device to defraud, and therefore the decision of the Postmaster General was wrong and

²⁵*Bul. Chicago D. Soc.*, 19, 39, 5; 1939 (May 5).

²⁶*Bul. Chicago D. Soc.*, 18, 6; 1938 (June 30).

arbitrary." Accordingly it granted an injunction. This appeal is from that order.

" 'Since 1926 appellee has been engaged in selling to the public, through the mails, artificial dentures, commonly known as false teeth. These dentures are manufactured at appellee's laboratory in Chicago, Illinois, from wax impressions made by his customers with material furnished by appellee and pursuant to instructions given by him. Since about 1932 appellee has advertised his product extensively in magazines and periodicals of general circulation throughout the United States, and has distributed circular matter by mail to persons who have inquired concerning artificial dentures. Included in this advertising literature were testimonials from customers and representations and statements such as the following: . . .

" 'Smile with ease, talk with ease, laugh with ease! Get a set of my guaranteed plates and you will be amazed at the improvement in your appearance. . . . In One Pennsylvania Town Alone, 131 people are wearing plates made by me. They are completely satisfied and have saved big money. They tested them, tried them, *proved them in every possible type of mouth, and under all possible, conceivable conditions.* . . . Just one example of what is possible in this age of progress, is that you can obtain a set of artificial dentures that will restore facial expression and give to the wearer *full power of mastication.* . . .

" 'On September 22, 1937, appellee was cited to appear and show cause why the order complained of should not be issued against him. A hearing was held before an assistant solicitor of the Post Office Department, at which appellee appeared, was represented by counsel, and introduced evidence in his own behalf. From the evidence adduced at this hearing the solicitor found that representations made by appellee in his advertisements and circulars were false and fraudulent, in several particulars, i.e., that no experience is necessary to make one's own impressions; that dentures made therefrom will fit the purchaser perfectly and give real, complete and perfect ease and comfort and satisfaction for life; that the dentures will restore full power of mastication and enable one to chew, eat, laugh and smile with perfect ease, that they are beautiful and natural looking, and will fit every possible type of mouth, including those having oral peculiarities; and that those purchasing such dentures will receive the same degree of utility, improvement of appearance, perfection of fit, life-long comfort and other advantages as were alleged to have been obtained by individuals whose purported testimonials appear in appellee's advertising matter. The solicitor, therefore, recommended that a fraud order be issued. The Acting Postmaster General determined from these findings that appellee was engaged in "conducting a scheme or device for obtaining money through the mails by means of false and fraudulent pretenses, representations, and promises," in

violation of the pertinent statutes and, in accordance with the solicitor's recommendation, issued the fraud order.

"The sole question to be decided is whether there was substantial evidence warranting the issuance of a fraud order in the present case. The conclusion of the Postmaster General is presumptively correct and "will not be reviewed by the courts where it is fairly arrived at and has substantial evidence to support it, so that it cannot justly be said to be palpably wrong and therefore arbitrary." We cannot substitute our judgment for that of the Postmaster General. It is of no importance that we might have reached a different result, or that the evidence is susceptible of different interpretations. The statute commits primarily to the Postmaster General the duty of determining whether, from all the evidence, the law has been violated. It is only in a case where there is no evidence reasonably to support the conclusion found that we may enjoin the enforcement of a fraud order. Appellee does not challenge the correctness of this statement of the rule, but contends that there is no substantial evidence in the present case to support the order in question. With this we cannot agree.

"It appears from the testimony of three dental experts that dentures made in accordance with appellee's representations cannot achieve the perfection of fit and utility claimed for them. The findings on this point, adopted by the Postmaster General in making his decision—and which find ample support in the record—read in part as follows:

" "The testimony of all three of these experts shows conclusively that . . . (appellee's) 'system' omits a number of processes absolutely vital to the securing of properly fitting and functioning plates, that the Heininger method differs radically in many particulars from sound, recognized dental practice, and that the making of properly fitting dentures can be insured only by close adherence to an involved and highly technical procedure carried out with the greatest precision and care by skilled and competent operators with the patient constantly available in person for examination, preparation of the mouth and repeated trial fittings and adjustments."

"He found, also from their testimony, that in order to insure well fitting plates it is essential to obtain an accurate impression of the mouth; that plates made from impressions taken in the manner prescribed by appellee may not only fit improperly but may cause injury to the tissues and muscles of the mouth and may obstruct circulation and produce excessive resorption of the alveolar ridges, "so that the patient will be ultimately precluded from wearing any dentures whatsoever."

"Several sets of teeth were ordered from appellee by the post office inspector who investigated the case, for himself and others. At the hearing they were inserted in the mouths of the persons for whom they were ordered and were then examined by Dr. L. G. Jordan, a practitioner, who for three

years prior to the hearing had been a professor of prosthetic dentistry. The following finding describes the result:

" " " . . . From this demonstration, it was manifest, and the expert testimony so showed, that in no case did these dentures fit the mouth for which ordered and that indulgence of the wearers in such normal activities as eating, talking and laughing was utterly impracticable. In one case, a denture was furnished to fit over a fragment of root imbedded in the gum of the purchaser. In another an upper plate furnished would not remain in position at all unless retained there by the hand or by pressure of the lower teeth and it extended so far beyond the lowers as to leave an extensive and unsightly gap in the occlusal plane, thus preventing a satisfactory bite. In still other instances the dentures received were so large and the plate line so low as to greatly distort the facial expression of the wearers and create an effect which was both grotesque and ludicrous. Examination of the dentures purchased in this manner showed further that plates received at different times for the same individual varied in width and otherwise, and while an attempt was made by counsel for respondent (appellee) to attribute these variations to changes occurring in the mouth of the patient during the period between orders, the expert testimony shows that dentures made for this subject by his own dentist several years prior to the first order being sent to Dr. Heininger still fitted his mouth perfectly and he was able to eat, laugh and talk therewith in a thoroughly satisfactory manner."

" " "The record further shows that after advertising that his dentures would "give to the wearer full power of mastication," and obtaining orders based on that representation, it was appellee's practice thereupon to advise the customers so secured that he could not promise to restore the efficiency of the natural denture and that if the customer's condition was improved five per cent it would prove worth while.

" " "Appellee contends that the opinion testimony of the dental experts does not constitute substantial evidence because it is controverted by the physical facts as disclosed by the statements of persons actually wearing dentures made at appellee's laboratory. He contends further that since those who purchased his dentures were satisfied with them, there was no reason for holding that he was engaged in a scheme or enterprise to defraud. There are several answers to these contentions.

" " "The physical facts—as disclosed even by letters from which appellee selected favorable excerpts for advertising purposes, and to the extent that such letters disclose the actual physical facts—support the testimony of the expert witnesses. Deleted portions of those letters contained such information as the following:

" " "1. They seem to be a little loose as I cannot keep them in my mouth without using the dental powder, and I don't want to have to keep on using

the powder, tho I'm afraid if they are made smaller they will hurt my gums.

" " "The chewing surface is higher on the left side causing the lower plate to come up when I chew. I think probably it's because the lower right side of my gum has perished away more owing to the teeth being taken out longer.

" " "I am returning the teeth with the pink wax so you can see and probably understand where the trouble is.

" " "2. But the lower plate dont fit I can't ware them at all the gums is to wide apart and the in Side of the gums is to long I am mailing them back to day hoping that you will under Stand it all and that I will get a Better fit next time hoping to hear from you Soon

" " "3. My upper plate fits fine. I am not having having having any trouble in wearing them, but the under works up if I talk, and jump out of place when I try to eat with them."

" "The following finding relates to the physical facts and is amply supported by the record:

" " "With a view to securing full and reliable data with respect to the character of dentures actually furnished by Dr. Heininger to writers of testimonials an extended tour was made in ten states by the post office inspector who investigated this case, Dr. Frederick W. Harper, the dental expert on the staff of the United States Public Health Service who later testified at the hearing and counsel for the respondents. During the course of this tour fifty persons who had previously written letters of endorsement with respect to their plates were called upon and although in every instance, at the request of counsel for Dr. Heininger, these persons signed an additional written statement expressing great satisfaction with their dentures, careful visual and digital examination thereof in their mouths by the dental expert representing the Government and whose testimony in connection therewith was adduced by the Government at the hearing showed that in not a single instance had properly fitting or functioning teeth been furnished. Included among numerous other conditions found by this expert in the mouths of these testimonial givers were the following: plate resting on diseased root; protuberance of bone preventing plate from fitting properly; complete lack of retention, teeth set off ridge; plate dislodged by facial movements; teeth striking in only one place; incisal plane incorrect; protrusion; no trimming of plate for accommodation to muscles; no provision for lateral movement of jaws (in every case); cross bite; marked irritation of tissues; occlusal plane lopsided; plate bearing area not properly covered; trauma; mold of teeth too large; mold of teeth too small; plate dropped when mouth was opened; lips forced apart by teeth; roughness in plate resulting from attempted trimming by wearer; lowers would not stay in; insufficient space between arches; median line in wrong place; plate would not go to place; teeth

lower on one side than on other; ridges flabby and teeth retained by use of powder."

"Dr. Harper testified further as to these fifty persons:

" "I might state that in all these cases there has never been made any provision for any lateral movements whatever. I tried to have these patients with full dentures make lateral movements. None of them could do it, because there was no provision made for it. All they could do, if they could make any movement at all, was just an up-and-down movement, because the teeth were locked in position when they closed."

"To support his contention that the testimony of the dental experts should be disregarded, appellee relies upon such cases as *American Car & Foundry Co. v. Kindermann*, 8 Cir., 216 F. 499; *United States v. Perry*, 8 Cir., 55 F. (2d) 819; *United States v. Donahue*, 8 Cir., 66 F. (2d) 838; *United States v. Perkins*, 10 Cir., 64 F. (2d) 243; *Grant v. United States*, 5 Cir., 74 F. (2d) 302, cert. denied, 295 U. S. 735; *Hamilton v. United States*, 5 Cir., 73 F. (2d) 357. Those cases, however, are readily distinguishable. In each, the physical facts were contradictory of the expert, opinion testimony and were positive and actual. In the present case, on the other hand, the so-called physical facts relied on by appellee consist also of opinions. The fact that the opinion of an expert is in conflict with the opinions of others who are not experts does not deprive it of substance.

"The case of *American School of Magnetic Healing v. McAnnulty*, is also easily distinguishable from the present case. There the Postmaster General was enjoined because the representation complained of was a matter of scientific opinion not susceptible of proof. Scientific opinion on the subject, at the time the opinion was written, was unformed and divided. Consequently, there was no "exact standard of absolute truth by which to prove the assertion false and a fraud." Since the statutes in question do not assume to deal with mere "matters of opinion upon subjects which are not capable of proof as to their falsity" the action of the Postmaster General was held to have been arbitrary and unreasonable. In the present case, however, we are dealing with a matter of established professional procedure, concerning which the representations made by appellee are easily susceptible of demonstration and of proof. Qualified members of appellee's profession testified that his representations could not be, and had not been, fulfilled.

"That the artifice practiced upon the public may have gone undiscovered and may have even met with complete success is of no consequence. As was said in *O'Hara v. United States*, 6 Cir., 129 F. 551, 555: "Schemes to defraud depend for success not on what men can do, but upon what they may be made to believe, and the credulity of mankind remains yet unmeasured."

"This is particularly true in a case like the present, where one, holding

himself out to be a member of a highly specialized profession, offers a service to the public, the members of which are not professionally trained and hence are dependent upon the integrity and judgment of those who are. When a business is "systematically and designedly conducted upon the plan of inducing its patrons, by means of false representations, to part with their money in the belief that they are purchasing something different from, superior to, and worth more than, what is actually being sold," it becomes objectionable under the statutes in question, even though, as in the present case, there is a promise to refund the purchase price should the article sold prove unsatisfactory. The purpose of Sections 3929 and 4041, R. S., is to prevent the use of the mails as a medium for disseminating printed matter which, on grounds of public policy, has been declared to be non-mailable. The decisive factor, therefore, is not whether "any one complains of fraud, or was in fact defrauded," but whether the mails are being used to project a scheme which may result in obtaining money from members of the public by means of false and fraudulent statements.²⁷

"(Reversed and remanded with instructions to dissolve the injunction and to dismiss the bill.)"

This decision follows several years of quiet yet effective labor by the Committee on Legislation of the American Dental Association, which is explained in "Dentures by Remote Control", part of which follows:²⁷

"DENTURES BY REMOTE CONTROL"

By G. R. McLaughlin, D.D.S.

"To get the present picture of the mail-order denture situation, I obtained order blanks, price lists, and impression materials from a half dozen concerns engaged in the business of making dentures by remote control. While the figures may be highly inflated, and probably are, one of these companies claims that it 'has cared for over 58,000 people.' Another boasts of over 10,000 satisfied customers, and a third leads in the braggart class by enclosing order blank number 112,638. Combine these figures, from three houses only, and we have a total of some 180,000 victims of decidedly inferior dental appliances. If only three of these quacks claim that many customers, it is safe to assume, by quite conservative reasoning, that the twenty companies (again a mild estimate) now selling dentistry by mail actually do have a thriving business. Considering the customers supposed to be served by only three of these concerns, we have enough to furnish some 60,000 legitimate

²⁷*Oral Hygiene*, 29, 311; 1939 (March).

dentists in the country with three patients each. Of course, we can not compete on the basis of \$5.85 or \$6.50 dentures.

"A test case on the practice of mail-order dentistry, that of *Sylvan B. Heininger vs. James A. Farley, Postmaster-General of the U. S.* was recently tried in the District of Columbia Court. The decision of Judge Peyton C. Gordon legalizes the practice of selling prosthetics by postman. The decision also points out, in specific terms, the many chances taken by any person who would actually expect to wear, to get a comfortable fit, or have any reasonable degree of satisfaction from a denture constructed in this haphazard manner. In other words, we all know the method is wrong; anybody with any common sense can see that. But it is still apparently all right with Uncle Sam until the suckers are all milked dry.

"Doctor Lon W. Morrey, Supervisor of the Bureau of Public Relations of the American Dental Association, is interested enough in the obvious danger of permitting these prosthetic parasites to remain in existence to make the following statement:

"'Permitting dentures to be made by mail is another example of the laxness of our laws. Unfortunately those who can least afford it are usually the victims. Certainly it is not too much to expect that the dental and legal professions devise a law that will protect those who, because of their ignorance and credulity, cannot protect themselves.'

"Doctor A. B. Patterson, Chairman of the Committee on Legislation for the American Dental Association, who has already given the profession valuable time and effort in combating this serious menace to our reputation, was kind enough to furnish me with the following opinion:

"'The Post Office Department and the Federal Trade Commission have set up very definite rules with regard to truth in advertising and have authority to put a stop to fraudulent advertising. The Post Office Department may, following an investigation where fraud is suspected, set a hearing and follow this with a "Fraud" order, which prohibits further use of the mails to a person or firm found guilty of fraudulent advertising. The Federal Trade Commission following the same procedure may issue a "Cease and Desist" order restraining the offender from continuing in his advertising certain statements that are found untrue and fraudulent, as was done following charges brought by the Federal Trade Commission against Heininger and others engaged in the mail-order denture business. Under recent increased authority the Commission may even prohibit the manufacture and sale, in certain cases where the health of the public is involved, of what is proved fraudulent, and punish with fine and imprisonment.

"'However, an appeal from Federal Department ruling may be then

taken to a court of law for review, and the case may be finally considered by the Department of Justice, the Court of Appeals, or the Supreme Court before final disposition.'

"All this essential but slow-moving machinery makes for long delay and calls for a considerable patience on the part of those who are interested in putting a stop to fraud. Court action and law enforcement move in proportion to the personnel and funds, provided for this purpose by State or Federal Government. Progress may be slow but a very definite effort has been directed toward putting a stop to the business of mail-order dentures.

"If, as the dental profession believes, this method of practice is essentially fraudulent, it will finally be proved so, with no more delay beyond that inevitable in the legal procedure that must be followed. Fraud may be not only suspected, but quite apparent to the well informed and still be a most difficult thing to prove in a court of law, in fact a charge of fraud is, in general, just about the most difficult thing to prove in a court of law.

"Take 'the mail-order denture business' as an example. Just because you are specially trained as a dentist and presumably well equipped by training and experience to form an expert opinion as to whether this form of practice is essentially fraudulent your opinion in court is only your personal opinion and maybe you might, however unfairly, even be accused of bias, assuming your opinion would be that the mail-order denture business is essentially fraudulent. This, in spite of your knowing that all dental college faculties concur in your opinion and condemn this practice, as does also the profession generally.

"The opinion of a layman, ignorant of the fundamentals of denture technique, is now balanced with yours. He may swear his mail-order denture is comfortable, functions well, and gives complete satisfaction, and here we have a controversy to show that fraud exists. Your side must exhibit a preponderance of evidence of fraud, to overcome the defense exhibit of some who claim, however you may question their sincerity, complete satisfaction. Whether a preponderance of proof is shown of course rests now with the court who has not your supposedly expert knowledge of dentistry, but supposedly does know the law and has the authority to interpret it.

"The American Dental Association is concerned with the practice of dentistry as it may affect the health and welfare of the people generally and, with its component societies, is determined to outlaw every form of dental quackery and condemns any method of dental practice that is against the public interest or below the standard set up by our schools and associations and the legislatures of the several states. Those public officials who are

charged with the responsibility of enforcing and interpreting our laws are aware of the fact that the American Dental Association has severely condemned, as against public health and welfare, the mail-order denture business and are aware of the willingness of the American Dental Association to be of assistance."

This decision puts a different light on the criticisms which have been showered upon the profession by the laboratories. Elsewhere in this report²⁸ the editor of *The Laboratory Technician* complains of the "profession's temporizing attitude", "waiting for something to turn up", "stalling for time", all of which may be significant of the care and judgment required to bring about desirable and lasting reforms. It is easy to follow the demagogue, burn down bridges and rush into a supposed Utopia. But it requires wise and judicious leadership to plan the end from its beginning.

The profession, through the labors of unpaid committees, has tried to abolish the mail-order denture business. These labors are beginning to produce results.

The editor of *The Dental Craftsman* in an editorial copied in this report²⁹ states: "If the Dental Practice Act is adequate to stop the disgracefully successful attack upon dentistry, that has been made by 'mail-order dentists' and 'advertising dental laboratories', surely there has been gross neglect on the part of some one." The Heinger decision shows how easily the slow and orderly procedure of the law might be mistaken for "gross neglect". Professional leaders know about the abuses and encroachments now being publicized as excuses for licensure of laboratories and technicians. Of far more importance, they are aware that existing or amended dental practice acts, when enforced, will protect the oral health of the public and the rights of the profession.

²⁸See page 212, this report.

²⁹See page 237, answer 2, this report.

VI. *Dental Laboratories Serve the Public*

Information at hand indicates that certain dental laboratories have thrown aside the secrecy which in the past has protected their illicit practice of dentistry. Examples of advertisements directly to the public are given below. The following handbill was distributed to the public:

HAVE YOU DENTURE BREATH

DON'T STOP TO THINK—WE KNOW THE ANSWER

All wearers of false Teeth have Denture Breath.

If you are not aware of it, people around you are.

Why neglect your health by wearing a stained and tarnished plate that breeds decay-bacteria and infects your other teeth.

All day brushing could never remove the stain and odor caused by accumulated foods or nicotine.

Our WHILE U WAIT service will eliminate all this for a small fee of 35c for a single plate and 50c for a double plate.

We also repair your broken plates for \$1.50.

Don't neglect your teeth even if they are false.

With our service your breath will be fresher, your mouth feel cleaner—and not only will your teeth look better, but your plate will last longer.

COME IN AND BE CONVINCED

FALSE TEETH CLEANING

and REPAIR SERVICE

"WHILE U WAIT"

1 West 125th St.
Lehigh 4-0340

2030 Fifth Ave.
N. Y. C.

The Chicago Daily Times, March 21, 1939, carried the following advertisement:

A. L. YOUNG Says: Buy Perfect

Guaranteed DENTAL PLATES on Credit

10 months to pay \$6.50—Credit terms at no extra charge.

Natural gum-like color, odorless, light-weight but sturdy. All plates made from impressions by licensed dentists.

Money-Back Guarantee—Merit Dental Plates are made perfectly and will give 100% satisfaction or your money back.

ALL PINK UNBREAKABLE PLATES \$12.50

Plates duplicated \$5.00

Repairs as low as \$1

FREE estimates for dental plates

OPEN EVENINGS—HOURS 9 A. M. - 8:30 P. M.

32 W. Washington St.—4th Floor—State 6005

5154 N. Clark St.—Second Floor

6445 So. Halsted St.—Second Floor

4707 Irving Pk. Blvd.—Second Floor

MERIT DENTAL LABORATORIES

In addition to the foregoing minor appeals directly to the public, the Chicago Classified Telephone Directory (The Red Book) (March, 1939) introduces a new and significant departure from the established profession-laboratory relationship. Instead of the former classification "Dental Laboratories", the directory now carries a double classification: "Dental Laboratories for the Profession", and "Dental Laboratories for the Public". Two letters dealing with this subject follow:

ILLINOIS STATE DENTAL SOCIETY

Office of the Secretary

627 JEFFERSON BUILDING

PEORIA, ILLINOIS

February 3, 1939

The Reuben H. Donnelley Corporation
350 East 22nd Street
Chicago, Illinois

Attention: Manager of Compilation

Gentlemen:

Our attention has been called to the proposed plan whereby you will list in the next publication of the Chicago Classified Telephone Book (The Red Book), two classifications for Dental Laboratories, as follows:

"Dental Laboratories—
For The Profession"

"Dental Laboratories—
For The Public"

We desire to call your attention that such a classification is contrary to

the Dental Practice Act in Illinois as dental laboratories are not authorized "for the public" and cannot serve the public direct.

May we inquire upon what basis was this classification predicated?

Very truly yours,

C. N. Newlin
Secretary

THE REUBEN H. DONNELLEY CORPORATION

350 EAST 22ND STREET

CHICAGO, ILLINOIS

February 8, 1939

Dr. C. N. Newlin
Illinois Dental Society
Peoria, Illinois

Dear Dr. Newlin

This is in reply to your letter of February 3rd, in which you refer to the changes we are making in the next issue of the Chicago Classified Telephone Directory for the classification of Dental Laboratories.

It is obvious from your letter that the thing you specifically object to is the classification which reads "Dental Laboratories For the Public." We can, of course, understand why you object to this classification, but we cannot understand your saying that it is contrary to the Dental Practice Act in Illinois for Dental Laboratories to serve the public.

Actually, the current issue of the Chicago Classified (the one that is now in use) carries at least two advertisements from dental laboratories who definitely in their copy offer to serve the public. In addition to that, various Chicago newspapers carry advertisements almost every day addressed to the public and signed by dental laboratories. In addition to that, magazines which have Illinois circulation as well as circulation in other states carry advertisements from dental laboratories with Chicago addresses offering laboratory services (the making of plates) to the public.

If the Dental Practice Act definitely forbids public practice by dental laboratories, then the enforcement of the act is obviously lax.

We made the change from one heading of "Dental Laboratories" to the two headings so that there would be no possibility of confusing those laboratories which ethically serve the profession with those laboratories who sell direct to the public. In making the change we had the interest of the dental

profession in mind, and with that background, we find it difficult to understand why the Dental Society should be critical of our action.

Very truly yours,

(Signed) C. O. Lillyblade

Vice President

The cleaning of "false teeth" by technicians infers that they are serving the public in phases of prosthetic oral health service which the dentist alone has been licensed to practice. The true nature of such commercial exploitation of the public is not revealed by announcing the cleaning and repairing of dentures. This may be only a "blind" behind which the owner is operating a commercial dental clinic, manned by technicians and serving the public directly. The patrons of such laboratories would, no doubt, "come in" to have a "plate cleaned", "be convinced", and go out with a new denture made (?) "WHILE U WAIT". The possibilities of exploiting the public by such methods are unlimited. What old denture does not require more than cleaning to restore its usefulness? High pressure salesmanship, guarantees and bargain prices may be counted on to "convince" the public that a new denture is absolutely necessary for "health's" sake.

The use of licensed dentists to make impressions provides a legal loop-hole should trouble arise, and at the same time, creates confidence in the patient and adds dignity to exploitation in health service.

This is only the beginning of commercial exploitation of dentistry and the public by dental technicians. Far-sighted dentists can imagine what might happen if and when the technicians should be licensed as "prosthetic dentists". Licensed technicians under a favorable political set-up could degrade oral health service for the low-income group in America, as has been done in other countries.

In a sense, the dental profession has been responsible for such undesirable developments among the technicians. Some dentists send patients directly to the laboratory for denture repairs, for selection of teeth, for the making of impressions and in some instances for the finished dentures. Some technicians have come to regard the dentist

as a middleman and they have now found a way to get along without his aid. So long as dentistry has among its members those who violate their professional responsibilities, we may expect increasing violation among those who service the profession as adjuncts.

Dentistry must awake to its responsibilities in protecting the public. This can be done only by discontinuing those undesirable practices now used as patterns by the technicians. Each dentist should seek by all means to elevate the quality of his service to the public. He should make himself independent of the industrial laboratories. Thus, through force of economic pressure, these adjuncts will confine their activities to serving the dental profession and not the public.

We urge the strengthening and the effective enforcement of dental practice acts in order to bring about the desired reforms. The following three articles are copied in full to show, contrary to statements by the laboratories, that the dental profession is aware of the increasing evils which it is striving to correct by means of professional cooperation and law enforcement:

"HOW CAN UNLICENSED PRACTITIONERS BE APPREHENDED
AND ADEQUATELY PUNISHED?"³⁰

Clyde H. Schuyler, D.D.S., *New York*

"Our forefathers recall the time when the barber considered it his privilege to remove aching teeth for his customers. Since then, the desirability of special training has been recognized. At first the would-be practitioner was advised to serve as an apprentice to a recognized practitioner for a limited period of time. Later, schools to train dentists were organized. At that time, the necessity of protecting the public against imposters became apparent. Licensing qualified practitioners was a means of giving that protection. Laws controlling the practice of dentistry were adopted, in time, by every state in the Union and examining boards established to pass upon the qualifications of the applicants.

"The progress that dentistry has made since that recognition is familiar history. Today, it is an honored profession. Dentistry is recognized as an important health service. Dentists are assuming their responsibility with the medical profession in caring for the health needs of the public. Six years

³⁰*J. N. J. D. Soc.*, 10, 1, 22; 1938 (Oct.).

are spent in colleges, preparing the student in the fundamental sciences that he may fulfill his responsibility in rendering this health service. In addition, all states recognize the value of hospital training for the dentist and some at present are discussing the advisability of making one year's internship a prerequisite to the practice of dentistry.

"Scarcely conceivable, but true, is the fact that there are a few within the profession and among the public whom the profession serves who still feel that this health service may be trusted to unlicensed operators.

"In comparatively recent years, a law was passed requiring the annual registration of licensed practitioners, the certificate to be conspicuously displayed in the operating room, in order that the recipient of dental treatment might know that the operator is qualified. With this registration, a two-dollar registration fee is required, the proceeds to be used for the specified purpose of apprehending and punishing illegal practitioners. The State has failed in its responsibility to the public and the profession, since at present this registration fee, collected for a specified purpose, finds its way into the general State tax pool, from which a comparatively small and inadequate amount is spent for the purpose of enforcing the Dental Practice Act. Members of the profession should individually and collectively express their resentment of this diversion of funds and the laxity of the State in apprehending and punishing illegal practitioners.

"The members of the profession must, however, recognize their responsibility to the public and the State. Today, the most common violator of the Dental Practice Act is not 'a barber who pulls teeth' or the unlicensed operator in a dental office, but the dental technician. Most laboratory owners and technicians recognize their lack of knowledge in the fundamental sciences and their inability to adequately serve the public directly. However, as is common in life, the man with the most limited knowledge often has the most exaggerated ideas of his own wisdom and ability. These technicians are dangerous violators.

"Prosthetic dentistry is not just a matter of mechanics, it is a health service, second to no other branch of dentistry. Its success is based on a knowledge of the biological sciences, as well as the mechanical. An ill-fitting restoration may cause not only loss of the remaining teeth and destruction of oral tissues, but it may be a factor in producing a physical wreck. Lack of oral comfort may not only handicap one in the mastication of food, with its subsequent effect on his physical well being, but continued oral discomfort seriously impairs the nervous system, varying in degree from a mild reaction, to insanity; from a slight impairment of organic function, controlled by the nervous system, to physical collapse. I have seen all degrees of them. An

unartistic restoration may handicap the one for whom it is made both physically and mentally. In fact, an individual's health, his happiness and his value to society is involved in rendering prosthetic service.

"Many practitioners, sincerely interested in the future of their profession, may be surprised to know that members of the profession have most seriously handicapped the State in its endeavors to punish violators of the Dental Practice Act. Should the section pertaining to prosthetic appliances become unenforceable, we may justly hold responsible a group of spineless members of the profession, who lack professional ideals and concepts. I am referring to the dentists who appear in court as character witnesses for technicians who have been apprehended by the State while practicing dentistry illegally. I feel safe in saying that unsupported or unjust charges are never brought against an individual by the State's investigators, yet violators of the law seem always able to get some 'good fellows' in the dental profession to plead their case in court. This practice has justly incensed the courts. If members of the profession feel no responsibility in enforcing this law, why should judges impose punishment upon illegal practitioners? As a result, it is becoming more and more difficult for the State to convict and punish those who practice dentistry illegally.

"Even if the dentist has no sense of professional responsibility in protecting the public, how can he so thoughtlessly 'sell his brothers down the river' and his own inheritance for a 'mess of pottage?'"

* * *

"YOU, TOO, CAN HELP

Pierce A. Quirk, D.D.S.³¹

"A meeting of the Committee of Prosecutors of the New Jersey State Dental Society was held at Trenton, September 23, 1938. Each county was represented, and Doctor Philip Schwartz, Chairman of the Board of Prosecutors explained the purpose of the meeting to be, to organize a real working committee to assist in promoting the prosecution of illegal dental practitioners in New Jersey.

"Illegal dental practice, while often a sore spot, was formerly a condition which we regarded as an evil that would always be with us. Not much interest was taken by the members, and an attitude adopted that it was a matter for the State Board of Registration and their investigator to take care of. Of recent years this situation has alarmingly increased until it has been estimated that in one of our counties, alone, over one hundred thousand dollars in fees were paid to illegal practitioners in the course of one year.

³¹*Bul. Hudson County D. Soc. of N. J.*, 8, 2, 2; 1938 (Nov.).

To eradicate this evil is evidently too much to expect from one investigator or even one representative from each county.

"Never let us forget that the dental health of the public is our responsibility. We are the members of a specialized branch of medicine, qualified by intensive training and authorized by our State, to fulfill this obligation. The patient's well being demands a knowledge of human anatomy beyond the confines of the straight line articulator, and it is our solemn duty to protect them from the pitfalls of quackery. The dentistry of the charlatan is never conducive to his well being and most always results in impaired health and depleted pocketbooks. Ours is the task to see that no further inroads are made into a profession built upon a foundation of confidence and service.

"In times such as these when statistics show that one in every seventeen in our State is on relief, when former lucrative practices have fallen to all-time lows, and the general idea seems to be to give away everything to the 'forgotten man,' it behooves the members of our Society to awaken to the realization of the potential dangers of the situations about it.

"How we can ignore this constant leakage in our revenues while professing the utmost interest in the economic side of our work is hard to figure out. Yet, we go on from day to day not only failing to cooperate with our authorities, but constantly putting more 'patients' in the hands of those who would take away our business. And truly, we are to blame for much of the condition that prevails today. We started the public up the road to 'parlor chair' dentistry and 'behind the door fees' and it is up to us to use all means at our command to stop it.

"Most illegal work is done by dental technicians, and we ourselves were the kindly souls who introduced the public to the mechanic. Little did we think that the time would come when our patients would try to get it 'wholesale.' We sent them to the mechanic with their denture repairs; we brought them to the laboratories, for the taking of tooth shades, and we called in the 'plate man' to advise us in different situations that arose in our prosthetic practice. What happened? Why, the public figured we were the 'middle-man' and then and there decided to cut us out if it could possibly do so. We created the situation and we should do something to correct it. How to do it may seem a big job and it probably is. You cannot break a dog of old habits and certainly a portion of the public has become laboratory conscious, but we can do one thing and that is stop putting new blood into illegal dentistry.

"That is why at the Trenton meeting it was decided that the component societies should institute an educational campaign among the dentists them-

selves to attempt to show the members that they are indirectly aiding the technician to take away a very important branch of our profession.

"It is known that right in our own Society, licensed dentists cooperate with illegal practitioners by doing necessary extractions or other work for patients of these violators. It is hard to excuse this attempt at a brazen flagrant conspiracy on the part of our own members to cheat and defraud their fellow dentists of their means of living. These men, when the required evidence is gathered, will be prosecuted to the limit. The golden glitter of the almighty dollar blinds some of us and dulls our moral sense of obligation to both our fellow workers and the public themselves. The committee decided to spare no effort to stamp out this evil from within our ranks.

"Quite frequently the public, and even the courts, are not sympathetic to dentistry's problems nor are they aware of the potential dangers involved. Judges have been indifferent and at times even hostile to our Board when they attempt to obtain a conviction. They believe we are crying over lost revenue, and cannot see anything terribly wrong with people getting something for what they think 'a little less in price.' One can just imagine these same judges crying to high heaven at the undermining of the Constitution if they should by chance discover someone pleading a case before them who had forgotten the mere detail of taking and passing the Bar examinations. This type of magistrate must be enlightened that dentistry has come on since the dental offices he knew about and that our profession does not want it to slip back to the days of the 'barber shop' extractions. He should be gently reminded that he must interpret the law as it is written and not as he sees or feels about it. We can get around this state of affairs in our contacts with men socially and professionally; a little reminder now and then that maybe we too are interested in the potential health dangers to the public, involved in illegal dentistry.

"It would be foolish to think that all the present wrongs can be righted by a committee having a meeting. To hope that the public would be converted to our line of reasoning, and that dentistry would return one hundred per cent to its proper channels, is not worth the time it takes to give it the passing thought. But this much is certain: that with a wholehearted effort on the part of the society membership, a great deal of this underground dentistry can be brought into the open. While not exactly a state of Utopia, some improvement can be expected.

"That is why we say, 'You, Too, Can Help.' You can make yourself an active member of the committee to clean up this situation by being alert and keeping your ear to the ground for all evidence of illegal practice by reporting all suspicious cases, no matter how small or trivial they may seem

to you. The slightest clue may result in bagging the worst offender. You can be assured your Secretary, Dr. Wilson, will track it down for all it is worth. Your name or the patient's name need not be used, and all reports will be held in the strictest confidence.

"You can help also, by keeping the patient and the mechanic as far apart as possible. Keep him out of your office. He does not belong there. Don't make him your silent partner. His title, 'Technician,' is just what the word implies, and his hands do not belong in the patient's mouth. A remedy will be found when we get him to understand this important point.

"You can be of great assistance to the work of prosecution if you would do a little sleuthing on your own part. Get as much information as you can, and you may be certain that every facility will be used in investigating your clues or rumors, regardless of whether they prove false or true.

"Let us snap out of our lethargy, and do ourselves some good for a change. With a real cooperative effort we can accomplish our purpose. A car speeding downhill gathers momentum the farther it goes. It seems about time we applied the brakes."

* * *

"THE ILLEGAL PRACTITIONER MUST GO

Albert Lamoutte, D.D.S.³²

"It is the obligation of the dentist to safeguard the traditions, observe the tenets and uphold the principles and codes of practices left as a rich heritage to the profession by the strong, forthright leaders of the past. For many decades men of power and genius have sought to improve upon the old order of things, and they have succeeded in creating a generation of dentists who no longer look askance at education and culture as did tooth-pullers of the barber-surgeon era. Let us emulate the example of these heroes of the past and speak out for the good of the profession.

"Dentists are apathetic upon the subject of the illegal practitioner. No matter what the verbal explanation may be, except where the guns of malpractice are actually booming, dentists seem scarcely aware that anything wrong is going on. Does this apathy mean that they countenance this condition? Why is not more assistance given our capable Secretary of the State Board, and its ever-willing and hard-working Investigator?

"Although the lachrymose hypocrites of the profession have been weeping over the sad decline in their incomes, some of these grief-stricken apostles have been aiding and abetting the illegal practitioners by going on their bail when the law has caught up with them. Some of these dentists even own

³²*J. N. J. D. Soc.*, 10, 3, 64; 1939 (April).

stock in dental laboratories and elevate their laboratory-owner-partners to the rank of full-fledged 'dental consultants.' In a number of recent cases of prosecution of dental mechanics caught in the law's net, some of these laboratory owner 'consultants' have been present in the court room as keen spectators of the proceedings. Invariably they have been accompanied by their D.D.S. partners, these latter being more interested in the expansion of the commercial laboratory than in the perpetuation of the ideals of their profession. Too often they represent the type of dentist who gives 'courses' in his own laboratory while his commercial laboratory partner advertises his products, to the financial profit of both.

"A short time ago, I appeared before the State Prosecutors at Trenton, and I quote from the minutes.

" 'Dr. Albert Lamoutte of Union City appeared before the Committee to call attention to the fact that much of the illegal practice and difficulties in prosecution are caused by the presence at dental meetings of dental mechanics, dental supply salesmen, and others who have no place at such meetings. He stated that many of these persons know more about dental society business than some members, and a frank discussion of prosecution matters, legislative matters, etc., is impossible when outsiders are in attendance at meetings.

" 'Dr. Quirk made a motion, seconded by Dr. Brouwer and carried, that the Committee go on record that the business meetings of component and State societies be kept for the benefit of dental society members only, except in the instance of special guests being invited for specific purposes by the officers of the Society.'

"Recently I was the recipient of a very friendly and well-meaning letter from the owner of a large commercial laboratory, in which he mentioned the fact that he had read with great interest my article in the January issue of the *Hudson County Dental Society Bulletin*, dealing with the illegal practices of the dental mechanic. He wished it to be known that, in his opinion, the relationship of the dental technician to the dentist is the same as the relationship of the building contractor to the architect.

"I would be pleased to believe that this were the case. I am in no way opposed to cooperating with the dental technician. He is a useful adjunct to the profession. But, when he attempts to establish mechanical dentistry as an independent industry, separate and apart from the jurisdiction of the dental profession, with a separate examining board and a separate degree, as was attempted not so long ago, then, I say, his ambitions are too great for organized dentistry to countenance.

"Can any laboratory owner cite an instance of an architect's office being

flooded with symposiums on architectural science and art by building contractors? What would be the attitude of the architect if such a reflection upon his ability were attempted? Yet, a steady stream of pseudo-scientific stuff, gleaned from dental magazines and dental research workers, is being catapulted into the laps of gullible members of the profession by the laboratory owners. And it is being accepted without protest.

"As a matter of fact the dental mechanic, or technician, can arrogate to himself none of the credit for any of the technical advances, or improvement in materials that have brought the practice of dental prosthesis to its present high estate. This has been accomplished by the dentists themselves, and by the inventors of the different plastic materials, metals, chemicals and manufactured articles that go to make up prosthetic appliances—the dental research workers, the metallurgists, the chemists, the men of genius who work long hours in clinical laboratories, in the heat of smelting appliances and furnaces, and in the poison-laden atmosphere of the chemical laboratories.

"Let the laboratory owners tell the truth about these things, and give the credit where it is due.

"Here let me say a word about the appointees to our Legislative Committees. Members of these committees should be able to stand up under a close scrutiny as to background before being eligible for such an important duty. Men with a partnership in laboratory corporations, or, men with little or no experience in legislative activities, have no place in the work of whipping into shape legislation that will, in a systematic and orderly way, abate the abuses that now menace our profession. In the past, our State and district societies have not been sufficiently awake to the situation. Now they are aroused from their lethargy. Illegal practice must be stamped out. It is going to be with, or without, the cooperation of the commercial laboratories."

Recommendations

1. The committee advises a joint study of the profession-technician relation and suggests that the professional representatives on the committee shall be *informed* dental leaders who previously have thoroughly considered the objectives to be attained through such a joint study.

2. The College should suggest to the American Dental Association that a professional relations committee be appointed to study the need and to formulate plans for the effective and harmonious co-

operation of agencies and adjuncts which contribute to the professional services of the dental profession. This committee should lend assistance in coordinating the efforts of affiliated dental groups toward conciliation and agreement in the present dental laboratory controversy.

3. Each state dental organization should be requested to urge amendment of its Dental Practice Act, if necessary, in order to prohibit dental laboratories and technicians from serving the public directly.

4. All State dental organizations should be vigilant to prevent licensing of dental laboratories and registration of dental technicians.

5. Organized dentistry should demand more rigid enforcement of dental practice acts and aid enforcement by reporting illegal practices and offenders to the proper authorities.

6. Dental organizations should urge the correction, among their members, of practices which are subversive of the profession's welfare and which impair the quality of oral health service rendered to the public.

7. The formal training of persons adjunct to the dental profession shall be under the control or the advisement of the profession.

EDITORIALS

TRENDS IN DENTAL EDUCATION

When one considers all of the crossroads dentistry has faced in its comparatively short existence, it is small wonder that occasionally the profession sees familiar scenes and the old landmarks of a previously traveled path.

It is difficult to believe that each time we have been faced with a choice of paths, we have always chosen the correct one. Had we been infallible in our selection it is not likely we would once again be entering familiar scenes and listening to the same chorus of directions from the "wood whittlers" sitting in the shade by the side of the road.

This time we are truly facing a crossroad and not a fork in the path. Our choice of directions is three. Ahead is the middle road—that was the one we chose before, and here we are back at the crossroads. This time we are a little older, a little more experienced. Shall we turn right or left or jump the fence and start off across country?

The "wood whittlers," sitting by the side of the road, are pointing this way and that, but let us not belittle or ignore them too quickly, for they have had the time and the opportunity to study us, our problems and our actions. Most of us trudging down the road are too occupied with our burden of day-to-day problems to care to leave the beaten path, even when we know we are traveling in a circle.

Perhaps it was the "wood whittler" who first saw with clarity that dental education today is faced with two major and opposing criticisms, each having a certain amount of justification.

First, we are not preparing sufficiently well-trained and educated dentists to meet the biological problems confronting dentistry.

Second, we are not preparing a sufficient number of dentists to meet the needs of the people. Dental education is too long and too costly.

Our failure to meet biological problems is well pointed out by Raymond B. Fosdick in *The Rockefeller Foundation: A Review for 1938*. Much has been and is being done to meet this problem, yet we should accept this and like criticism as a stimulus to greater endeavor. However, we must not be too hasty in our attempt to bring about this change and so undo all of the constructive work and progress of those who have preceded us. If we proceed by steady and continual change this problem can be solved as is any other problem. On the other hand, if we stubbornly refuse to make any effort to change in the face of just criticism we will be forced to accept a change so sudden that it might be termed revolutionary.

Various plans have been developed in an effort to stem the tide of this criticism. Some have failed, others are still in the experimental stage and may or may not prove to be the final answer to this problem. The proposed plan at Harvard is an attempt to meet this problem by preparing dentists highly trained and educated in the biological and medical approach to dental problems. There is no doubt that Harvard will make outstanding contributions. However, they will be the contributions of a heavily endowed research institution and will not necessarily set an example of the best means of meeting our dental educational problems.

The plan is the result of a study by physicians, educators and dentists. They are largely academic, however, in their point of view. They really bear the same relationship to actual dental problems as the "brain truster" type of politician bears to the practical political problem of stuffing ballots in the Fourth Ward. However, commendable results may come from the experiment, but they can not be the results expected by the Harvard Group. To continue the analogy with politics, we can expect little real improvement in our political life to originate with the Boss of the Fourth Ward. Improvements will be conceived by the "brain truster," but due to his complete lack of understanding of the "goings on" in the Fourth Ward, his ideas and theories will never quite materialize in the form in which they were originally planned.

The second criticism apparently points in an exactly opposite

direction. It is claimed that dental education is now too long and too costly to prepare a sufficient number of dentists to meet the dental needs of the people. This is a criticism with a basis of justification.

Lowering standards in any type of activity is a dangerous procedure and particularly so in the field of health service. Moreover, this problem is not a problem of dental education alone, but includes problems of national economy, public health and education and appreciation of health by the people generally. We must admit, however, that part of this problem is ours; we must identify that part and seek its solution.

It is no coincidence that two types of plan, with apparently contrary objectives, are under discussion at this time. In a sense one grows out of the other; each is an attempt to answer one of two major criticisms of dental education today.

The dentist whose education has been pointed exclusively toward an understanding of the biological and medical approach to our present and future dental problems would be neither equipped for nor interested in the mass treatment of dental disease; at least not by the methods which we understand. On the other hand, we could not look to the quickly-trained technician for any help in our search for the cause and prevention of dental diseases.

It is quite obvious that the adoption of either plan would necessitate the adoption of the other. Then the question arises as to whether such a combination would be workable. This brings to mind the "Master-Servant Plan" of the late Dr. Alfred Owre. It was the same controversy. It is the same crossroads.

This time, however, we have a well-known and heavily-endowed University about to embark on the "Master" part of the plan and an increasing demand by our public health, social service and political groups for the "Servant" part of the plan.

A great many men in the field of dental education are increasingly aware of these problems, but in the profession at large there is a general "thumbs down" attitude toward any change. If this general indifference continues it might be well for dental educa-

tion to take the initiative, even if it means jumping the fence and starting across the fields.

—W. C. F.

* * *

THE HARVARD PLAN

A careful study of the proposed plan at Harvard University reveals, first of all, direction away from the dental viewpoint. We do require certain common knowledge with physicians, but beyond that, we require to think in terms of tooth tissue and its diseases. Our attention must therefore be specifically directed. Some provision is made for strictly dental study, but not to the point of our need nor with sufficient emphasis. Harvard proposes to discontinue the present four-year dental course and to substitute a five-year course, consisting of three and one-half years of regular medical work and one and one-half years of regular dental work. Graduates will receive both the M.D. and the D.M.D. degrees (the latter being the dental degree now given at this school). Medical students will continue their medical studies for another one and one-half years, receiving the M.D. degree. The man with both degrees can only practice part of dentistry, while the man with one degree can only practice medicine.

This plan, according to Dr. William J. Gies¹ interpretation, "would initiate a 'pioneer effort' to bring about the partition of dentistry into (a) a mental portion, to be made a specialty of medical practice ('dental medicine'), and (b) a manual portion, to be excluded from that specialty, but to be its technical supplement—the work to be done by technicians (training not indicated, and perhaps later to be named dentists)."

Among gains to be made, as proposed in this plan, are better equipment for research, teaching and leadership in dentistry.

Similar plans have been tried in other Universities,² but they have failed to accomplish the desired results. Graduates are neither physicians nor dentists—what a waste! In this, then, all three

¹Dentistry Going Forward. Gies, Wm. J., Ph.D., Sc.D., *J.N.J.D. Soc.*, 11, 7; 1940 (July).

²Ten Years of Fellowship Training for Dentists. Bibby, Basil G. See p. 145, this issue.

anticipated gains become losses. Why not prepare dentists and physicians for practice, then through graduate work in each field, these anticipated gains will become realities.

As a contrast to this (Harvard) plan, the College of Dentistry of the University of California may propose some change in undergraduate study. The plan may or may not prove acceptable, but a saving grace lies in a statement of the Dean, who maintains that "dental students can be taught only by dentists or by men with a dental viewpoint."

Witness the development of research within the ranks of dentistry—note the extensive studies being made on dental caries. The American Dental Association, through the Research Commission, has recently published a survey of findings of 195 researchers in this field, in the volume entitled "Dental Caries." This indicates earnestness of effort and at a cost not too great. Dentistry has done its work, and will do its work, provided the present responsibility be not taken away.

What will happen to the degrees, M.D. and D.M.D. or D.D.S., under such a plan as proposed by Harvard? Both degrees are to be given to dental graduates without the privilege or possibility of practicing medicine. What will be the attitude of the physician toward this? Further, the dental graduate has both degrees but can practice neither medicine nor dentistry. After graduation, he must continue study in the technical phases of dentistry. How can a man lead in an enterprise in which he is unqualified? A further study in the technical phases of dentistry will carry him at least two years longer, by the end of which time he will have put in more study time than the medical student. In other words, he has studied longer to qualify for dental practice than has the medical student for medical practice.

But one conclusion can really be reached and that is, that dentistry had best continue along its own way, carrying on into the future as our past and present have directed us, thus raising our level for our successors to take over. Thus will dentistry, dentists, and the public be well served.

NEWS, NOTES AND COMMENTS

HARVARD UNIVERSITY

Cambridge, Mass.

Release: Monday MORNING papers
June 17, 1940

University News Office

ANNOUNCE NEW HARVARD SCHOOL OF DENTAL MEDICINE

Cambridge, Mass., June 16—Through gifts of \$1,300,000 already made towards a required total of \$1,550,000, Harvard University will inaugurate in 1941 an entirely new five-year course in dental education, President Conant announced today. This course will combine the basic knowledge and skills of both medicine and dentistry and is designed to train new types of scientific workers for the attack on the great public health problem of dental disease.

Harvard was the first university in America to establish a dental school and becomes the first university to institute this particular plan in the development of dental and medical education.

This new development has been made possible by the gift of \$650,000 from the Carnegie Corporation, \$400,000 from the Rockefeller Foundation, and \$250,000 from the John and Mary R. Markle Foundation. A balance of \$250,000, bringing the total to \$1,550,000, is required to fulfill the program, but the University announces it has sufficient expectation of finding a means to provide this balance to proceed with the entire plan.

The President and Fellows of Harvard College have also transferred definitely to the resources of the School of Dental Medicine \$1,000,000 tentatively placed at the disposal of the Dental School ten years ago. The permanent new assets for teaching and research in dentistry in Harvard thus total \$2,550,000.

"The new program," stated President Conant, "contemplates a more complete and formal integration of dental and medical education than has heretofore been attempted in this country. It is a move in the direction of attacking the great public health problem of dental disease at its source, through advancement of the study of

causes of such disease and of its prevention. It is hoped that through the plan, the scope of adequate dental protection may be extended to large numbers of our people for whom dental attention is not now available."

Under the new program, the Harvard Dental School will be renamed the Harvard School of Dental Medicine. Dental students will register in both the new School of Dental Medicine and in the Harvard Medical School, taking three and one-half years of the same medical courses as other students in the Harvard Medical School, and in addition one and one-half years of specific dental training. Graduates will receive both the M.D. and D.M.D. degrees. Admissions to the School of Dental Medicine will be governed by the same standards and the same committee which govern admissions to the Harvard Medical School.

"There are now some 70,000 practicing dentists in the United States," said President Conant in explanation of this important and pioneering change. "In general the profession of dentistry in the one hundred years of its existence has established remarkable standards of proficiency and service. The precision and ingenuity of reparative methods developed by its leaders and members has been extraordinary.

"Yet the problem of proper dental protection for our population as a whole has only been partly solved.

"It is stated by the Committee on Economics of the American Dental Association that the 70,000 dentists now practicing, devoting their entire time to the care of patients, could not give adequate dental care to more than 20 per cent of our people. This would leave 80 per cent who receive insufficient attention—a serious proportion, since dental maladies are more or less universal and are at times widely detrimental to general health.

"It hardly seems likely that economic resources will permit multiplying the present provision for dental care by five. Moreover, the provision of such increased care, even if financially feasible in the near future, would not be a real solution of the problem. The real solution would appear to be in advanced knowledge of the causes of

dental disease, and resultant improvements in the methods for preventing such disease.

"It is to this type of solution, with the wide human benefits involved, that it is hoped the new Harvard School of Dental Medicine may make its contribution. Without sacrificing the skill and expertness attained under present methods of dental education, the new program will attempt to add to the dentist's equipment a wider and deeper knowledge of medicine, and hence a more favorable background for the advancement of study of essential causes and preventive method.

"Several foundations, long deeply interested in dental education and research, have contributed generously to the Harvard program. The Carnegie Corporation's gift of \$650,000 is in addition to an earlier gift of \$350,000 made in 1937. Thus the total contributions of this foundation to dental development at Harvard amount to \$1,000,000. The gift of the Markle Foundation is for the support of dental research, for which a previous gift of \$25,000 was made, bringing total gifts from this foundation to \$275,000. The Rockefeller Foundation has added still further to its Harvard benefactions by a gift of \$400,000 to the new School of Dental Medicine."

Under the plan, the last class to enter the present four-year dental curriculum at Harvard will be admitted this coming September. The new program will go into operation in the fall of 1941.

This development is a natural continuation of the close and essential relationship between the two professions which has been stressed for many years by the Harvard staff. Five years ago, Harvard founded a University Committee on Research in Dental Medicine, the first of its kind, correlating attention of scientists in dentistry, medicine, chemistry, and biology, on problems of dental research under the Chairmanship of Dean Leroy M. S. Miner of the Harvard Dental School. Dean Miner has been prominent, within the University and in national professional associations, as an advocate of closer integration of the professions of dentistry and medicine.

It is planned to limit admissions to the new School of Dental

Medicine to a small number of highly qualified men, who will be prepared for certain particular opportunities in the dental field: in teaching, research, special types of practice, general practice, and public health. For example, it was explained, men will be equipped to attack the manifold problems of dental medicine in private practice as clinical specialists of particularly broad training, or to teach the science of dentistry in dental schools, or to investigate and treat dental disease in hospitals and clinics.

Certain important changes of method in dental education will be involved, bringing dental education at Harvard closer in line with the methods and standards of medical training. The plan envisages the development, in hospital and other dental clinics, of opportunities for training after graduation. It is anticipated, also, that a number of teaching and research fellowships will be established. As in the Medical School, there will be left to postgraduate experience some of the preparation for complete technical proficiency in specialized fields. The program will result, also, in closer integration of teaching, research, and clinical work in dentistry at Harvard.

By bringing dental and medical students together in the basic preclinical and clinical subjects, it is expected that not only will the educational opportunities of the dental student be advanced, but also that there will follow modifications in the teaching of medical students, bringing to them important knowledge of oral medicine and oral disease now lacking in their training.

"This idea is not new to dentistry or to Harvard," Dr. Conant said. "For years the teaching staff of the Harvard Dental School, under the leadership of Dean Miner, has been stressing the close and essential relationships between dentistry and medicine. The new plan is to be regarded as an extension of developments already under way in the Harvard Dental School. It is believed that it will develop both theory and practice in the profession and make dentistry more significant and more important than ever before."

Plans for the School of Dental Medicine have been developed through many months of study by a committee of medical and dental educators. This committee was as follows: C. Sidney Bur-

well, M.D., Research Professor of Clinical Medicine and Dean of the Faculty of Medicine; Percy R. Howe, D.D.S., Thomas Alexander Fosyth Professor of Dental Science and Instructor in Pathology; Leroy M. S. Miner, D.M.D., M.D., Professor of Clinical Oral Surgery and Dean of the Dental School; Harold C. Stuart, M.D., Assistant Professor of Pediatrics and Child Hygiene; Kurt H. Thoma, D.M.D., Charles A. Brackett Professor of Oral Pathology; Lewis H. Weed, M.D., Professor of Anatomy and Director of the Department of Anatomy, and Director of the School of Medicine, Johns Hopkins University; George B. Wislocki, M.D., Parkman Professor of Anatomy; and S. Burt Wolbach, M.D., Shattuck Professor of Pathological Anatomy.

* * *

COMMENTS

The Harvard Plan: This plan as announced (see above) will provide no little discussion. During the next few months it will receive considerable attention from the dental press. The *Journal of the New Jersey State Dental Society* for July carries an editorial comment, from which the following is an excerpt:

"The Harvard Plan, as officially authorized, is so revolutionary in its evident purpose and its announced procedure, that it promises to be a subject of active and prolonged discussion.

"The official announcement indicates that the proposed detailed medical education is a basic feature of the plan; that this projected plus-medical and minus-dental training is supposed to give the M.D.-D.M.D. graduates a kind and quality of medical knowledge and wisdom that the dental faculties do not and cannot impart; and that this added knowledge of medical details, applied to dental problems, will enable these physician-dentists to ascertain exactly how dental diseases are caused and may be prevented; to quickly eliminate, by prevention, the need for technical skill and mechanical treatment in dental health care; and soon to convert dental practice mainly, and ultimately entirely, into advisory service.

"The official announcement of the plan, however, omits some public assurances. It does not state, for example, why or how education for the M.D. degree will give to those who receive it the knowledge and wisdom that will assuredly enable them to discover promptly how to prevent dental disorders yet fails to give physicians knowledge and wisdom to prevent, say,

disorders of the eye. Why will the knowledge of more 'medical' details do for the teeth what it does not accomplish for the eyes? If we are not misinformed, glasses are worn by a larger proportion of the population than ever, and ophthalmologists who have received both the M.D. degree and even the extra special degree of Doctor of Ophthalmology have not yet learned how common ailments of the eyes may be prevented. If the medical training that physicians receive leaves them powerless in these and many other relations, what can possibly be the factual basis for the assurance at Harvard that, by applying more details of 'medical' knowledge to dental problems, discoveries of causes and of means of prevention of disorders of the teeth will soon automatically follow? In Europe, where this opinion has been tested, dental research has not been more advanced than in the U. S. A.

"In future issues other aspects of the Harvard Plan will be discussed."

In an address, "Dentistry Going Forward," by William J. Gies, M.S., Ph.D., Sc.D., delivered before the New Jersey State Dental Society, and published in their *Journal* for July, 1940, the following succinct statement was made (p. 14):

"This (Harvard) plan would initiate a 'pioneer effort' to bring about the partition of dentistry into: (a) a mental portion, to be made a specialty of medical practice ('dental medicine'), and (b) a manual portion, to be excluded from that specialty, but to be its technical supplement—the work to be done by technicians (training not indicated, and perhaps later to be named 'dentists'). All of the constructive phases of this plan could be conducted, at much less expense and more effectively, by affording favorable opportunities for an equal number of students in advanced graduate work."

THE CURRICULUM SURVEY COMMITTEE REPORT, 1935

The Curriculum Survey Committee, under the direction of Dr. L. E. Blauch, made its report in 1935, offering this significant comment:¹

"In recent years the question has been sporadically raised whether dental education should not be placed under the control of medical education. The arguments favoring such a change are deduced from what are regarded as general principles; none of them are definitely based upon careful analyses of what constitutes an adequate training in dentistry and the problems involved in providing the training. The few advocates of the subordination of dental education to medical education have not demonstrated that dental

¹A Course of Study in Dentistry. Report of the Curriculum Survey Committee, American Association of Dental Schools, 1935, p. 81.

education is unable or unwilling to cope with its problems, nor have they shown that dental service for the public would be benefited thereby or that dental education under the domination and control of medical education would result in a more resolute and effective attack upon the problems of dental health and the education of dentists than if it remains autonomous.

"Dental education has definite problems, many of which are distinct from those of medical education. The large amount of training that is involved in restorative dentistry constitutes an example. Even with all the effort now devoted to it, this work is done none too well. There is a strong probability that if dental education were placed under medical education, the student would be inadequately trained to meet the dental needs of the public."

* * *

THE JOURNAL OF DENTAL RESEARCH—ENDOWMENT FUND

This fund continues to grow. The results of efforts are showing regularly and in due time we will win. The last report of the treasurer shows the following figures:

Cash Receipts as of August 1, 1940	\$22,389.68
Pledges	5,450.00
	<hr/>
	\$27,839.68
Amount Solicited	\$50,000.00
Cash and Pledges to date	27,839.68
	<hr/>
Yet to go	\$22,160.32

ERRATA

In reporting the program and dedication of the plaque in honor of Major Fernando Rodriguez in the preceding issue of the Journal, page 27, this should have been stated as "under the auspices of the Washington, D. C., Section of the American College of Dentists."

The reception held by the College, as reported on page 16, was under the direction of the Maryland Section of the College.

The "March of Time," pages 23 to 25, was reprinted from the Program of the Baltimore meeting.

OUR ADVERTISEMENTS

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

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

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

The American College of Dentists aims, in the public interest, to strengthen all wholesome relations and activities that facilitate the development of dentistry and advance the welfare of the dental profession. The College commends all worthy endeavors to promote useful dental industries, *and regards honorable business in dental merchandise as a respected assistant of the dental profession.* Our Board of Editors has formulated "minimum requirements" for the acceptance of commercial advertisements of useful dental commodities (*J. Am. Col. Den.*, 2, 173; 1935). These "minimum requirements" are intended, by rigorous selection on a high level of business integrity and achievement, to create *an accredited list of Class-A dental products and services*, and include these specifications: Advertisements may state nothing that, by any reasonable interpretation, might mislead, deceive, or defraud the reader. Extravagant or inappropriate phraseology, disparagement, unfairness, triviality, and vulgarity must be excluded. Advertisements relating to drugs or cosmetics, foods, dental materials, education, finance—to any phase of interest or activity—will be accepted for only such commodities or services as merit the commendation, approval or acceptance of the National Bureau of Standards, American Dental Association, American Medical Association, Council on Dental Therapeutics, Dental Educational Council, Better Business Bureau, and other official bodies in their respective fields of authoritative pronouncement. *The*

ADVERTISEMENTS

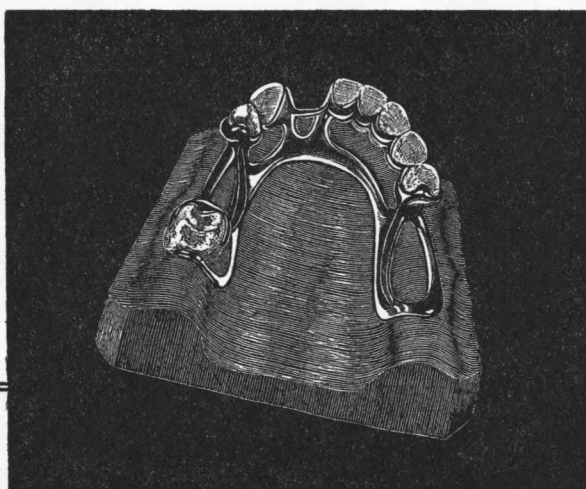
welfare of the consumer is our paramount consideration. In accordance with the recommendation of the American Association of Dental Editors, the placement of advertisements will be restricted to the advertising section.

II. An advertisement, to be accepted or repeated, not only must conform with the said "minimum requirements," but also *must meet the special test applied through a questionnaire* that will be repeatedly exchanged confidentially with numerous referees in all parts of the United States, and which contains the following inquiries:

Questionnaire for referees on acceptance of advertisements.—(1) Has _____ (person, company, service, etc.) always been honorable and fair in (his, their) dealing with you personally? (2) If not, indicate confidentially your experience to the contrary. (3) Has _____ (commodity, service, etc.) always been, in your use of it, what its advertisers claim for it? (4) If not, indicate claims that were unwarranted when made. (5) Would the accompanying (copy of a proposed) advertisement of _____ (commodity, service, etc.) be warranted, in your judgment, as a recognition and encouragement of useful dental commercialism? (6) If your answer to Question 5 is Yes, will you agree to test, *critically*, the above-named commodity (service, etc.) and to respond at intervals to our further inquiries as to whether all the claims published currently in its behalf, in advertisements *in the Journal of the American College of Dentists or elsewhere*, are justified?

III. The advertisers whose claims are published on the succeeding pages stand high in commercial character and on the recognized merits of their products (services, etc.). They are not among those who seek advantage from misrepresentation, and need no assistance from a prejudiced or insincere journalistic policy. They are above the temptation to try to control or influence any aspect of the conduct of this *Journal*, which in all its phases is completely independent, and fully representative of the professional ideals and the professional obligations of the American College of Dentists. We commend each advertiser in this issue to the patronage of all ethical dentists.

WHAT PRICE
Superiority?



Each pennyweight of Williams XXX (with Indium) Partial Denture Casting Gold represents more than just a carefully alloyed combination of dentistry's finest metals. It represents years of patient metallurgical research, years of careful study into the rigid requirements which dentistry has a right to place upon a prosthetic metal...Throughout these years Williams XXX (with Indium) has been progressively improved to its present high standard of quality, workability, durability...The Williams Gold Refining Co., Inc., Buffalo, N. Y.

WITH
Williams XXX Indium

PARTIAL DENTURE CASTING GOLD

AMERICAN COLLEGE OF DENTISTS

STANDING COMMITTEES (1939-1940)

Centennial Celebration (establishment of dentistry as a separately organized profession—1939-40)—Harold S. Smith, *chairman*; Harry Bear, J. H. Ferguson, D. F. Lynch, Waldo Mork.

Certification of Specialists—H. C. Fixott (44), *chairman*; Max Ernst (42), C. O. Flagstad (41), J. O. McCall (43), E. W. Swinehart (40).

Dental Relations—J. O. Goodsell (43), *chairman*; L. E. Kurth (41), T. E. Purcell (44), Nathan Sinai (40), Wilmer Souder (42).

Education—F. W. Hinds (42), *chairman*; A. W. Bryan (43), W. C. Fleming (44), Harry Lyons (40), J. T. O'Rourke (43), R. S. Vinsant (41), L. M. Waugh (42).

Endowments—Emory W. Morris (43), *chairman*; Dan U. Cameron (41), Oscar J. Chase (44), Abram Hoffman (40), A. H. Merritt (42).

History—W. N. Hodgkin (44), *chairman*; E. E. Haverstick (42), J. B. Robinson (43), Henry L. Banzhaf (41), Robert P. Thomas (40).

Hospital Dental Service—Howard C. Miller (43), *chairman*; R. W. Bunting (44), E. A. Charbonnel (40), Leo Stern (42), C. W. Stuart (41).

Journalism—J. Cannon Black (40), *chairman*; G. M. Anderson (40), W. B. Dunning (41), Walter Hyde (44), T. F. McBride (41), E. G. Meisel (42), H. J. Noyes (43), E. B. Spalding (44), R. C. Willett (42).

Necrology—J. V. Conzett (41), *chairman*; R. R. Byrnes (40), F. H. Cushman (42), B. E. Lischer (43), W. L. Shearer (44).

Nominations—P. V. McParland (40), *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), J. R. Cameron (40), C. W. Freeman (44), W. I. Macfarlane (43).

Prosthetic Service—W. H. Wright (43), *chairman*; W. H. Grant (41), Clarence A. Nelson (40), A. P. O'Hare (42), A. H. Paterson (44).

Research—A. L. Midgley (42), *chairman*; L. E. Blauch (44), W. D. Cutter (43), J. E. Gurley (42), P. J. Hanzlik (40), P. C. Kitchin (43), A. B. Luckhardt (41), L. R. Main (44), L. M. S. Miner (41), Irvine McQuarrie (40), A. M. Schwitalla, S. J. (44).

Socio-economics—C. E. Rudolph (43), *chairman*; E. H. Bruening (44), Wm. R. Davis (41), B. B. Palmer (40), M. W. Prince (40), Maurice William (44), Geo. W. Wilson (42).

Announcements

Next Annual Convocation: Cleveland, Ohio, Sunday, September 8, 1940.

Fellowships and awards in dental research. The American College of Dentists, at its annual meeting in 1937 [*J. Am. Col. Den.*, 1937, 4; pp. 100 (Sep.) and 256 (Dec.)], 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.