

ALUMNI BULLETIN

Indiana University School of Dentistry

VOL. VII

JULY, 1946

No. 8

Caries Inhibition With Fluorine

In 1930 after about 20 years' study of mottled enamel and its causative agent, soluble fluorides in the drinking water, McKay reported that the fluorosed teeth were apparently more resistant to tooth decay than were normal teeth. During the years between 1930 and the present time epidemiological studies have corroborated this finding.

These epidemiologic studies have very definitely shown that youngsters 12, 13 and 14 years of age whose drinking water contained between one and two parts of fluorine per million parts of water had only one-third as much decay as other youngsters living in communities where the drinking water was free from fluorine. These same epidemiologic studies which showed the effectiveness of 1-2 p.p.m. of fluorine in the inhibition of tooth decay also showed that at this level of concentration the fluorine did not interfere with the health and welfare of the community. Some mottling of enamel occurred at 1-2 p.p.m., but it was of a very mild type and affected less than 0.3 per cent of the incisor teeth.

In addition to the effectiveness of fluorides consumed in the drinking water during the development stage of the teeth it has been shown clinically that fluoride solutions applied to the teeth topically will also make the enamel more resistant to tooth decay. Studies by Cheyne⁴, Bibby⁵, and Knutson and Armstrong⁶ have demonstrated that when sodium fluoride solutions are applied to the dry tooth surface there will follow an effective diminution of the incidence of new cavity formation.

Investigations in the laboratory to explain this phenomenon have shown that when powdered enamel is mixed with a solution of sodium fluoride it becomes more resistant to decalcification by weak organic acids. It was also demonstrated that fluorosed enamel caused a reduction in the acid production by bacteria. There is

(CONTINUED ON PAGE TWO)

Faculty Member Dies

Dr. William F. Barnfield, Assistant Professor of Oral Pathology at the School of Dentistry died June 1 in the Long Hospital following an acute illness of eight weeks. The funeral was held in the Miller Chapel, Charleston, Illinois, with members of the faculty serving as pall bearers.

Dr. Barnfield was born in Charleston, Illinois, on December 11, 1913. He attended Eastern Illinois State Teachers College High School, 1929-33, and the Liberal Arts College, 1933-35. He then entered Washington University School of Dentistry and received the degree Doctor of Dental Surgery in 1939. He served an internship and then a residency in Cincinnati General Hospital, Cincinnati, Ohio, from 1939 to 1941.

Since 1941 Dr. Barnfield has spent his entire time and energy in teaching and dental research. He served as instructor in pathology and bacteriology, Washington University School of Dentistry and Medicine, from 1941 to 1944. In 1944 he was appointed instructor in pathology and admitting clinic, University of Illinois College of Dentistry, Chicago, Illinois. In September, 1945, he accepted the appointment as assistant professor of oral pathology in Indiana University School of Dentistry.

Dr. Barnfield published several articles in outstanding medical and dental journals in the past few years and his future in dental research was most promising. He was a member of the Indianapolis Dental Society, Indiana State Dental Association, American Den-

(CONTINUED ON PAGE TWO)

SENIORS PASS STATE BOARD

The School of Dentistry is pleased to announce that all of the seniors who took the State Board examinations in May passed. Of the 38 in the graduating class, all but two took the board. The examinations are composed of two days written tests and two days practical work in the clinic and laboratory.

Seniors Recieve Awards At Honor Day

The annual senior honor day program was held on May 3rd in Hurty Hall in the State Board of Health Building. The principal speaker was Professor Charles H. Walters, Department of Speech, Butler University.

Scholastic honors, recognized through election to Omicron Kappa Upsilon, national dental honor society, were received by five members of the graduating class. Students who were elected included Harold Blackburn, Huntington; Marlin Inman, Boonville; Charles A. Rhodes Indianapolis; Lamar Radmacher, Walkerton; and Richard Starr, Bloomington. Dean Maynard Hine presented Dr. Roy Smiley, Washington dentist, with the annual meritorious award to the alumni and Dr. Henry Swenson of the faculty at the School of Dentistry was elected to membership.

Other awards included the certificate of merit of the American Society of Dentistry for Children to Eugene Kipple, Terre Haute; the C. V. Mosby Award for outstanding work in oral surgery to A. P. Garcia, San Juan, Puerto Rico, and the C. V. Mosby Award in orthodontia to Charles Rhodes.

The program was attended by members of the Bloomington faculty, representatives of the Alumni Association and the Board of Trustees.

DENTAL LIBRARIAN LEAVES

The dental school regrets to announce the resignation of Mrs. Helen Campbell, librarian. Her aim has always been to make ours one of the leading dental libraries in the country, and her untiring effort has made this possible. The faculty, assisting staff, and student body would like to express to her their appreciation of her constant assistance.

Thirty-Eight In Graduating Class

At the 117th Commencement in Bloomington on Sunday, June 16th, thirty-eight seniors received the degree Doctor of Dental Surgery. The principal speaker at the exercises was Associate Justice Wiley Rutledge of the United States Supreme Court. Justice Rutledge warned that the press, radio, and educational systems are taking too frequent detours into the camp of special interests and by-passing their basic objective of truth.

Degrees were granted to 628 students while over 5,600 parents and friends attended the Commencement.

Seniors who graduated with the degree of Doctor of Dental Surgery were: Robert D. Allen, Ft. Wayne; Robert R. Allen, Winchester; Charles C. Alling, Indianapolis; Norman Becker, Chelsea, Mass.; Leonard Bezahler, New York City, N.Y.; Harold L. Blackburn, Huntington; Glenn R. Bollinger, Huntington; Malcolm Boone, Indianapolis; Victor L. Bunch, Borden; Alexander J. Chalko, Whiting.

William L. Croxton, Terre Haute; Dominic F. DiBalsi, Trenton, N.J.; Marcos A. Dones, Santurce, Puerto Rico; Robert D. Gannon, Middlebury; Angel P. Garcia, Arecibo, Puerto Rico; Manuel Garcia-Fortuno, Rio Piedras, Puerto Rico; Dwight A. Garrett, Montpelier; Phil Goodman, East Chicago; Charles L. Howell, Chalmers; Marlin Inman, Boonville; Henry G. Kezlarian, Royal Oak, Mich.; Eugene R. Kipple, Terre Haute; Bertram H. Kottin, Brooklyn, N.Y.; Harold Matlack, Federalsburg, Mo.; Melvin Nevel, Mishawaka.

Raleigh L. Phillips, Brazil, Lamar F. Radmacher, Walkerton; Charles A. Rhodes, Indianapolis; John K. Rueckl, Weston, W. Virginia; Patrick C. Russ, Ft. Wayne; Donald Smith, Mishawaka; Richard Starr, Bloomington; Leo Stults, Bristol; Robert J. Sturm, Ft. Wayne; Alfonso L. Tapia, Panama City, R. of P.; Carmelo J. Todaro, New York, N.Y.; Charles E. Watkins, Parkersburg, W. Va.; Joe G. White, Indianapolis.

ALUMNI BULLETIN

School of Dentistry
Indiana University
Indianapolis, Indiana

A free and non-profit bulletin is issued quarterly by Indiana University School of Dentistry for the purpose of keeping its Alumni informed of the activities and progress of the school.

Editor—R. W. PHILLIPS
Assistant to the Editor—
R. HANNAH
Staff—A. O. HUMPHREYS
R. A. MISSELMORN
W. B. CURRIE

Entered as second-class matter December 31, 1941, at the post office at Indianapolis, Indiana, under the Act of August 24, 1912. Published four times a year, by The Indiana University School of Dentistry, Indianapolis, Indiana, in the months of January, April, July, and October.

Vol. VII July, 1946 No. 8

THE LIBRARY

Selected List of New Books
June 15, 1946

- Adelman: Simplified orthodontia. 2nd ed. Dental Reflector, 1945.
Adriani: Chemistry of anesthesia. Thomas, 1945.
American dental association: Roster of members, 1945.
American medical association: New and nonofficial remedies, 1945. A.M.A., 1945
American public health association. Committee on administrative practice. Subcommittee on local health units: Local health units for the nation. Commonwealth Fund, 1945.
Bodansky & Bodansky: Biochemistry of disease. 2nd ed. Macmillan, 1937.
Bowden: Essentials of local anesthesia in dentistry. Wright, 1945.
Cannon: The way of an investigator. Norton, 1945.
Chemical rubber company: Handbook of chemistry and physics. 29th ed. Chemical rubber company, 1945.
Conant: General education in a free society. Harvard, 1945.
Cowdry: Textbook of histology. 3rd ed. Lea & Febiger, 1944.
Dwyer: Oral health. Saunders, 1945.
Glasser: Dr. W. C. Roentgen. Thomas, 1945.
Goldmann: Public medical care; principles and problems. Columbia, 1945.
Hill: Applied anatomy: Lea & Febier, 1945.
Hooton: Up from the ape. Macmillan, 1945.
Kahn: Man in structure and function; tr. from the German and

Caries Inhibition

(CONTINUED FROM PAGE ONE)

available then for those who do not have drinking water containing fluorine a method by which the fluorine may be applied to the teeth by a dentist. The method is not complicated; it can do no damage to the patient, either to his general health or his teeth. It has been shown that fluorine applied topically to the dried tooth surfaces will reduce the incidence of new cavities by 40 to 60 per cent.

At the present time fluorine in the form of a solution is being applied to the teeth of a limited number of dental school patients. The method being used in this clinic is as follows:

1. Prophylaxis before the first treatment.
2. Isolate* and dry, preferably with 50 per cent alcohol, as many teeth as can be conveniently handled until all teeth are treated.
3. Apply fluoride with cotton saturated with solution or use atomizer.
4. Wait 4 minutes, keeping tooth surfaces moist with fluoride.
5. Wash teeth and rinse mouth with tap water.**
6. Repeat six times*** each year until caries immune age is reached.

* Isolating one quadrant of the mouth at a time seems to be the most efficient method.

** Warn patient not to swallow washings.

*** Once a week for six weeks, or twice a week for three weeks.

DOSAGE:

2 per cent sodium fluoride solution is being used at the present time.

edited by George Rosen. Knopf, 1943.

- Macy: Nutrition and chemical growth, vol. II. Thomas, 1946.
Pattee's dietetics, 23rd ed. Putnam, 1945.
Prinz, Rickert & Dobbs: Pharmacology and dental therapeutics. 9th ed. Mosby, 1945.
Ross: Essentials of surgery for dental students. Livingstone, 1945.
Siddle: Stainless steel work in mechanical dentistry. 2nd ed. Kimpton, 1945.
Skinner: Science of dental materials. 3rd ed. Saunders, 1946.
Wright: Manual of laboratory glass-blowing. Chemical publishing company, 1943.
Yearbook of dentistry, 1945. Yearbook publishers, 1945.

PREPARATION:

The formula is as follows:

NaF (C.P.) 2 grams
Water 98 milliliters

Note: It is probably better to have the solution compounded by a chemist or a pharmacist, for the materials should be weighed accurately and filtered. Sodium fluoride is quite soluble and its solutions are quite stable.

The dentist, however, must not forget that first of all the existing tooth decay must be repaired before the fluoride solutions are applied to the teeth. It is also still important that the patient have his or her teeth cleaned and also that he or she learn how to keep the mouth clean with a tooth brush.

There is no one sure way of maintaining good dental health in this civilization of ours. Control of dental caries is dependent upon many factors, which include proper diet, operative and other restorative procedure, adequate oral hygiene, and the topical application of fluorine if none is present in the drinking water.

1. Bibby, B. G. Use of Fluorine in the Prevention of Dental Caries 1. Rationale and Approach. Am. Dent. A. J., 3:228-36, Feb. 1, 1944.
2. Volker, J. F., Hodge, H. C., Wilson, H. J., and VanVoorhis, S. M. The Adsorption of Fluorides by Enamel, Dentin, Bone. J. Biol. Chem. 34:543-8 July, 1940.
3. Perry, M. W., and Armstrong, W. D. On the Manner of Acquisition of Fluorine by Mature Teeth. J. Nutrition, 21:34-44, Jan., 1941.
4. Cheyne, V. D. Human Dental Caries and Topically Applied Fluorine: A Preliminary Report. Am. Dent. A. J. 29:804-7, May, 1942.
5. Bibby, B. G. The Use of Fluorine in the Prevention of Dental Caries. II. Effect of Sodium Fluoride Application. Am. Dent. A. J., 31:317-21, March 1, 1944.
6. Knutson, J. W., and Armstrong, W. D. The Effect of Topically Applied Sodium Fluoride on Dental Caries Experience. II. Report of findings for second study year. Pub. Health Rep., 60:1085-90, Sept. 14, 1945.
7. Research Commission of The American Dental Association. Statement on Dental Status of Fluorine. Am. Dent. A. J., (Grant Van Huysen, Oral Diagnosis, Reprinted from Bulletin of the State Board of Health.)

ODD-DENTITIES

by ruhamah hannah

approximately 35 students are working in the clinic this summer . . . we are all sorry to have mrs. helen campbell, librarian, and louise laughlin, dean's office, leave us. they're a coupla good kids . . . dick young, '42, looking much thinner, stopped in for a visit the other day. and close on his heels was bill borman, '43, both in civilian clothes . . . congratulations to the new omicron kappa upsilon members — drs. charles rhodes, harold blackburn, richard starr, marlin inman, and lamar radmacher, and dr. henry swenson of the faculty and dr. roy d. smiley of washington, indiana . . . dr. ray anderson, operative clinic, has left indiana for florida, where he will start practice . . . the lights adorning the ceiling in the clinic are now safe and sound. three men came over the other day and took them all down and then came back the next day, which was saturday, and put them all back up again. and by the time monday had rolled around, the men had acquired new enthusiasm, so they came over and took down all the lights again. And now they're all swinging peacefully from the ceiling, after having had a welding job done on them sometime between taking downs and putting ups. so now they're safe and sound . . . recent graduates seen at the may meeting were joseph hutton, '44, dudley smith, '44, james zimmerman, '43, jean spear, '43, chauncey parker, '44, fred logan, '44, art heltzel, '43, dick wulff, '44, fred schaffer, '42, and elwood brickler, '45 . . . dr. ralph mcdonald, children's clinic, is spending the summer at forsythe dental infirmary at boston. he will resume his duties at the dental school in september . . . dr. quentin royer, '43, is taking post graduate work at mayo clinic at rochester, minnesota . . . dr. clifford wicks, '43, formerly of the faculty, has been discharged from the navy and is practicing in indianapolis . . . charles alling, '46, recently had a research paper published in the dental digest . . . from all indications the freshman class is going to be filled to capacity . . . and that's all for this time.

Faculty Member

(CONTINUED FROM PAGE ONE)

tal Association, International Association for Dental Research and Sigma Xi.

The faculty wishes to extend its deepest sympathy to the family.

Honor Students



Dr. A. O. Humphreys, assistant professor of Crown and Bridge at the School of Dentistry and President of Omicron Kappa Upsilon, congratulates the seniors who were elected to the society. Honor students, left to right, are: Marlin Inman, Charles Rhodes, Harold Blackburn, Lamar Radmacker, and Richard Starr.

Comparison Of Thermal And Hygroscopic Casting Technics

There has been much research done on individual casting technics in the past years. This research has so perfected our casting procedures that failures are now the exception rather than the rule.

At the present time there are two generally accepted and used casting technics. In one procedure the 1.25% contraction of gold is compensated for by the hygroscopic expansion of investment, whereas in the other technic, the expansion of the investment is obtained thermally. To date there has been no scientific investigation accurately comparing these two different technics. Since both are now employed in dental practice, it was felt advisable to compare the merits of the two systems. Therefore, the purpose of this investigation was to make castings of representative types of preparations employing these two different technics. These castings could then be studied for accuracy of fit and surface smoothness, as well as the convenience of the method.

The thermal expansion technic is the older method and has been used for many years. By heating the investment, it expands from 1.0 to 1.4%, depending upon the type of investment. By suitable

choice of the proper investment for each particular preparation, accurate castings can be made satisfactorily for all types of restorations.

The hygroscopic expansion technic is of more recent development and utilizes wax, setting, and thermal expansion to a certain degree. Advocates of this technic claim smoother castings because of the low burn-out temperature and also claim that the technic will allow proper expansion for all types of preparations.

Procedure

Representative preparations were made consisting of M.O.D. in molar, M.O. in molar, M.O.D. in bicuspid, and M.I. in incisor. In addition to these preparations, an M.O.D. steel die, made by the Bureau of Standards, was used. This particular preparation is very critical and makes possible accurate comparison of various technics.

In all cases the wax patterns were invested immediately after removal from the preparation. The investing procedure was the same in both cases and an asbestos liner was used in the ring. Castings were made both by centrifugal machine and by air pressure with 15 lbs. pressure.

Technic for Thermal Expansion

The invested pattern was stored at room temperature for 30 minutes. Preliminary burn-out for 30 minutes at 700°F. was followed by 20 minutes at 1300°F. in an electric furnace.

Hygroscopic Expansion

Immediately after investing, the ring was placed in a water bath at a temperature of 100°F. with the open end of the ring up. At the end of the 30 minutes period in this water bath, there was a heavy meniscus of set investment protruding from the end of the ring. This layer was trimmed with a knife. The meniscus is caused by the setting expansion of the investment. The sprue pin was then removed with crucible former still attached to the ring. The ring was then placed in boiling water and the wax was withdrawn by means of a special vacuum eliminator. The ring was placed on a hot plate or in an oven that had been pre-heated to 800°F. or 900°F. and was allowed to remain for a minimum of 30 minutes before casting.

Results

A minimum of five castings was made for each preparation by both technics. No difference could be detected between centrifugal and air pressure casting.

Results of this investigation are:

1. The hygroscopic technic does not give consistently as accurately fitting castings for all types of preparation as does the thermal expansion technic.

Quite different latitudes of expansion are required for all types of restoration, depending upon the length and shape of the cavity walls. Those recommending the

Laboratory Moved

The Caries Control Laboratory has been moved from the dental school to the State Board of Health building, as of July 1. It will be under the direction of Dr. Samuel R. Damon, who is director of laboratories, with Drs. Grant Van Huysen and Drexell Boyd continuing to serve as consultants.

It is hoped that the dentists of the state will continue to make use of the facilities of this laboratory.

hygroscopic technic suggest that the expansion can be varied as required by decreasing or increasing the time in which the ring is allowed to remain in the water bath or in the furnace. However, this author found that the expansion could not be altered sufficiently by these factors to secure desired results. Although the hygroscopic technic is satisfactory for some types, it has its limitations and is not so universal as the thermal technic. With the thermal expansion technic, the expansion can be varied to accommodate all types of preparations by the selection of proper investment. Preparations such as the M.O.D.'s on the steel die and tooth require the maximum amount of expansion due to their long, parallel walls. However, preparations such as most of the two surface inlays, require a lesser amount of expansion.

2. The hygroscopic technic did not consistently produce better surface on the castings. Generally, the author found that the thermal technic, even with its 1300° burn-out, produced somewhat smoother surfaces.

3. The hygroscopic expansion casting technic, because it involves the use of special equipment, namely: temperature control water bath, special wax eliminator, special casting rings and sprue former, is not as convenient a method nor is it as easy to master as the thermal expansion technic.

Conclusions

It is the belief of this author that the thermal expansion technic, although not perfect, is the better of the two technics. This technic, when properly used, consistently will produce accurate restorations for all types of preparations. The hygroscopic technic does not have sufficient latitude of expansion to do this. (Charles A. Rhodes, '46. Reprinted from The Dental Students' Magazine.)

Book Reviews

Practical and Economic Aspects of Medicine by George D. Wolf, M.D.

In the education of an individual for the professions of medicine or dentistry, very little emphasis is placed on the "practical" economic phases of his professional career. Details of office routine and office management are usually carefully avoided. There are good reasons for this—in the dental school, time is too limited to allow for comprehensive courses on "economics" or practice management; dental educators feel that they can better utilize the time which would be necessary to train a dental student to become a polished business man. Also, it is deemed unwise to stress office management in college because students should be impressed with the fact that there are higher values than those of money making. To the scientist, artist, and medical men, the work "business" with all its implications often suggests some common sordid activity beneath his notice. Yet, whether he likes it or not, every professional man is engaged in a business. This implies, among other things, conservation of his and his patient's time, a frank recognition of financial relationships and other "vulgaritys" not included in the strictly professional training.

This book by Dr. Wolf, who is assistant clinical professor of Otolaryngology in New York Medical College, is designed not only to acquaint the physician with the importance of recognizing the values of business methods in medical practice, but to supply many of the details of private medical practice. For example, a series of several letters is included which could be mailed to patients who have not paid their bills or failed to cooperate in other ways. The author also discusses planning and equipping a medical office in much detail.

Dentistry is not mentioned and only portions of the book would be of value to the dentist and dental student; however, good books on this subject are rare and this one deserves a place in a dental library because of the general philosophy presented by the author. (M. K. Hine, Dean)

The Science of Dental Materials by Eugene W. Skinner, Ph.D.

Skinner's third edition of "The Science of Dental Materials" is a definite improvement over the two previous editions. Particular attention has been devoted to revising and bringing up to date the work on acrylic resins, both from the standpoint of physical proper-

ties as well as its practical application as a denture base and restorative material. The section on vulcanite bases has been almost eliminated and replaced by this comprehensive discussion of acrylic. The other chapters have been carefully edited and generally they are abreast of the recent research. This edition is undoubtedly an excellent reference book, both for the practitioner and the student, on the physical properties, techniques, specifications and limited clinical application. As a text for a course in dental materials, it can probably best be used as a reading book with definite prescribed assignments rather than as a text studied chapter by chapter. Most teachers will not want to use the same chronological order of Skinner nor will they want to budget their time for each particular subject as he does. Also there are arguments against many of the theories and conclusions presented which should be observed to grasp the whole picture. However, as a text with prescribed reading assignments supplemented by additional objective material, it should be most satisfactory. In general this edition is accurate, comprehensive and the best available in this field. (R. W. Phillips, dental materials)

Anatomy of the Head and Neck by R. T. Hill, Ph.D.

The "Anatomy of the Head and Neck" is a completely new book in the field of anatomy in the United States. Although it was written especially for dental students, many other individuals interested in a condensed form of head and neck anatomy will find this new volume a great help. The book contains several completely new line drawings which add to its attractiveness.

The entire first chapter deals with the osteology of the head, based on the premise that the anatomy of the head and neck can adequately be dissected and learned only subsequent to obtaining a working knowledge of osteology. We agree with that premise.

The section on osteology is followed by a section dealing with a description of the anatomy of the soft tissues of the head coupled with methods of dissection. The method here employed of describing tissues along with their simultaneous dissection appears to be of great advantage to the student, at the same time not hindering the reading of the book by one who seeks descriptive anatomy along. The stress laid on the anatomy of the oral cavity, palate, pharynx, floor of the mouth and the infratemporal fossa is ade-

quate for any dental student studying gross anatomy of the head. We note with pleasure the considerable stress and importance given to the facial and trigeminal nerves, because the person who knows those two nerves and their relationships in detail knows a great deal of the anatomy of the head. In addition to the detailed dissection and description of the facial and trigeminal nerves in the first part of the book, those two nerves are also reviewed in subsequent chapters, adding emphasis to their importance.

The last half of the book describes the cranial autonomic ganglia, certain common lesions of the facial and trigeminal nerves, a few syndromes, some infection routes and the anatomy of the lymph system of the head and neck. Chapter IX gives a brief but concise review of the muscles of mastication and their many actions and counteractions. Accurate knowledge of the actions of the masticatory muscles is essential to the dental student, and this new volume meets those needs.

We are glad to note that the author has had several blank pages appended to the book for student use. Students should be strongly urged to make permanent sketches on these blank pages. Such sketches become of increasing importance for review purposes with the passing of time.

We feel that a few dissection techniques might have been altered somewhat for greater facility and that the student could profit by the inclusion of some notes concerning fractures of the mandible and the effect of muscle pull on the displacement of fractures. With the extensive current use of roentgenography in clinics we feel that a few well-chosen x-ray plates could have been included in the volume with corresponding notes pointing out the osteologic landmarks. There is reason to believe that the freshman year of gross anatomy is the logical time for the student to begin to familiarize himself with studies of the normal x-ray condition.

The index of the book is very adequate and easily used, with most topics cross indexed.

By and large the "Anatomy of the Head and Neck" is clear, concise, and very usable. In this country it is alone in its field in stressing the anatomy of that part of the body with which every dentist should be most familiar—the head and neck (G. VanHuysen, oral diagnosis). (These book reviews are reprinted from THE JOURNAL OF DENTAL EDUCATION.)

Hold State Meeting

The State Dental Assistants did big things at the May meeting. The membership was raised from 97 in 1945 to 157 this year. Watch us go places!

President—Margaret Magnuson, LaPorte.

1st Vice President—Alice Krick, Indianapolis.

2nd Vice President—Lois Kelly, Evansville.

Secretary—Lois Lambring, Seymour.

Treasurer—Leone Kunkel, Elkhart.

Executive Comm.—Jenn Sullivan, Evansville.

Clinic and Exhibit Supervisor—Margaret Akins, LaPorte.

Membership Chairman—Delores Gray, Indianapolis.

A. S. Birthday Comm.—Pauline Rivers, LaPorte.

Education Comm.—Mary Alice Carney, Monon.

By-Laws Comm.—Margaret Sharp, Jasonville.

Local Arrangements Comm.—Virginia Bates, Indianapolis.

We were both proud and happy to have as our guest speakers our dean, Dr. Maynard Hine, and Mr. R. W. Phillips, our metallurgist.

Our special out of town guests were National President of the A.D.A.A., Lucille Black of Birmingham, Alabama, and Dr. Scherer, National President of the A.D.A. from Texas. (Jane Cruden, chairman of publicity.)

Refresher Courses

The school of dentistry is conducting its second series of post graduate courses for dental practitioners. This summer term is extending from June 10th to August 3rd. While these courses are available to any dentist, they are designed especially for those returning from service in the armed forces. The courses are designed to review the various phases of dentistry and to acquaint the student with the recent advances in dental science.

The various courses which are being offered are:

1. Denture Prothesis, Dr. Frank C. Hughes and staff, 5 weeks.
2. Pedodontics, Dr. Drexell A. Boyd and staff, 5 weeks.
3. Oral Surgery, Dr. J. Frank Hall and staff, 3 weeks.
4. General Dentistry, Staff, 3 to 8 weeks.

Special courses of varying lengths are arranged in the above subjects for students who desire to spend a more limited time in the clinic than that which is scheduled.