

Alumni Bulletin

INDIANA UNIVERSITY
SCHOOL OF DENTISTRY

JANUARY, 1951
INDIANAPOLIS, INDIANA

Py-co-pay brushes...

now
"duratized"
for longer life

...now supplied with
Py-co-tips
for interdental stimulation

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Indiana University School of Dentistry ALUMNI BULLETIN

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

Department of Oral Surgery

by J. Frank Hall, D.D.S., Professor and Chairman of the Department

We believe that proper training of students in oral surgery is an important part of his dental curriculum. A majority of the patients visiting the Oral Surgery Department are sick patients. The students should be trained to handle these patients who present themselves for clinical advice concerning pathological lesions and abnormalities found in the maxilla and mandible and adjacent vital structures. He must be trained to plan and do the actual surgery to eradicate these conditions. The time allotted to this phase of dentistry in the student's busy schedule will permit only a limited amount of what we might term minor oral surgery; the more advanced cases are assigned to the postgraduate and graduate students.

The undergraduate students are assigned at regular intervals to serve throughout their junior and senior years. The junior students are assigned in small groups during the first two weeks to be processed and made ready to start actual work in the clinics. This processing includes instructions in sterile technic, handling of patients, history taking, the technics for administering local anesthesia, and the proper handling of surgical instruments. Many of the "new" junior students elect to go through the process training during the summer months and prepare themselves to be qualified to do actual surgery on patients in advance of the first semester in September.

The source of material supplying all types of cases for the undergraduate and graduate student is quite adequate. The amount of operations per student during the senior year has more than tripled, and for the past several years an equal amount of actual surgical work is done in the junior year. The junior stu-

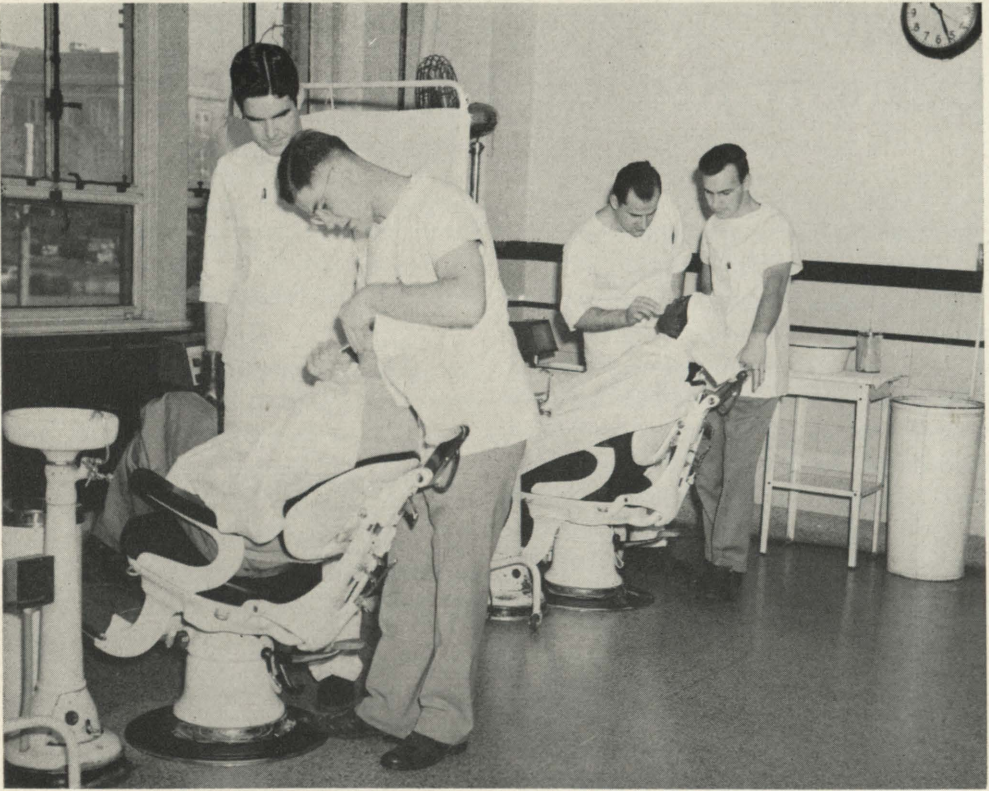


J. Frank Hall

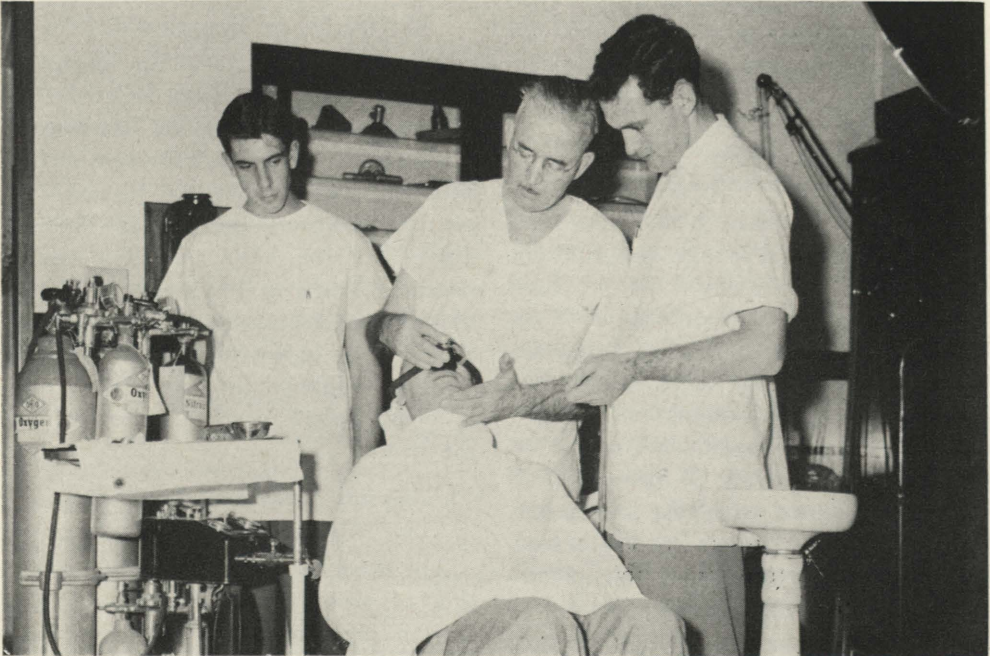
dents are assigned patients selected by the instructors and perform the surgery, rather than observe and assist the senior students as was common practice in many dental schools in the past. The oral surgery staff is unanimous in the belief that the student in order to increase his knowledge and develop surgical skill and judgment should actually do the work under close supervision.

The students during their junior and senior years, under strict supervision, administer and prescribe preoperative and postoperative medication for the clinic patients. The student is trained in the use of analgesics, sedatives, hypnotics, antibiotics, vitamins, and other drugs necessary for the proper treatment of the patient. Intramuscular injections of peni-

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Drs. Moss and Ropski supervising senior students in oral surgery clinic.



Dr. Hall demonstrates general anesthetic.

Indiana University School of Dentistry

Quarterly Research Report

1. *Cleansing Effect of Dentifrices*—Oral Histopathology Department

Eight groups, each composed of eight dental students, are using different types of dentifrices. Each student uses one type of dentifrice for a period of one month so that at the end of a four month period each student has used four different dentifrices. Before using each dentifrice the students' teeth are cleaned and polished. Kodachrome photographs are taken before and after each monthly period. Since the teeth are cleaned and polished before each period, one can determine the effectiveness of each dentifrice by comparing photographic records made at the end of each monthly experimental period.

A study of the effect of a penicillin-containing dentifrice upon the oral soft tissues is just getting under way. This project will also consider the effectiveness of a penicillin-containing dentifrice for cleaning teeth and possible harmful effects.

2. *Histology of Induced Rat Caries*—Oral Histopathology Department

Rat caries induced by ground corn meal has been attributed to the fact that the molar cusps are fractured by the hard particles, exposing the tooth tissue to the activity of caries. This has been disproved in this and other laboratories through histologic examination of early caries. When the molar teeth of the rat on a corn meal diet for 60 instead of 100 days are examined under the microscope, early caries but no tooth fracture is seen. One can demonstrate from this picture that caries first undermines the cusp so that fracturing occurs. At the present time, a technique is being worked out to

show for how long a period prior to cavitation particles of corn remain imbedded in the fissures of the rat molar.

3. *Carcinogenic Effect of Methylcholanthrene on the Oral Mucosa of Albino Mice*—Oral Histopathology Department

It has been shown that methylcholanthrene painted on the skin of white mice will induce cancer. In this laboratory methylcholanthrene is being applied to the skin, lips, and oral mucosa of albino rats. The animals have been treated, sacrificed, but histologic sections are not yet available. So far the results have not been encouraging. No gross lesions appeared on the skin as a result of the application of this proved carcinogen.

4. *Electron Microscope Study of the Pigment Found in Dental Caries*—Oral Histopathology Department

A melanin-like pigment has in another laboratory been previously isolated from carious dentin. Electron microscopic photographs of true melanin show a characteristic picture. At the present time in this laboratory the melanin-like pigment is being extracted from carious dentin. This is to be photographed with the electron microscope on the Indianapolis Campus to see whether it shows the typical melanin picture. The same process is to be applied to other stains found in the mouth.

5. *Fluoride Study and Dental Plagues*—Oral Histopathology Department

The exact mechanism of the fluoridization of tooth enamel is still unknown. Present knowledge of this mechanism

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seems to indicate that it is essentially a surface reaction and, as such, it was deemed advisable to study the role played by surface dental plaques, which are minute mucinous bacterial films covering the teeth. This laboratory is now investigating the feasibility of examining these plaques for fluoride ion.

6. *Tarnish of Gold Alloys*—Dental Materials Department

A clinical study correlating clinical tarnish of gold alloys of varying composition with laboratory tarnish tests. This investigation is being carried out in cooperation with the Orthodontia Department and sophomore students are being employed as patients. The purpose of the study is to determine whether the noble metal content, per se, is the main factor influencing tarnish. Preliminary observations indicate that a certain minimum gold content is necessary. It is hoped that a more effective laboratory tarnish test may evolve from this research.

7. *Physical Properties of Rapid Curing Acrylic Resins*—Dental Materials Department

A study of the physical properties of various rapid curing acrylic resins. Continuous tests are being made on all of the new resins which are being employed in restorative dentistry. Such tests as solubility, water absorption, temperature rise, hardness, etc., are carried out with a view to determine the best products available and the influence of various variables involved in their manipulation.

8. *Effect of the Airbrasive Technique on the Enamel Surface*—Dental Materials Department and Operative Department

Continuation of a study of the effect of the airbrasive technique on the enamel surface. The newer types of prophylactic abrasives are now being studied in the same manner as was previously employed

in a paper presented last March before the I.A.D.R. The purpose of this particular investigation is to determine whether the newer abrasives which are being supplied by the manufacturer are milder in their abrasive action.

9. *Accuracy of Alginate Impression Materials*—Dental Materials Department

A study comparing the accuracy of various alginate impression materials and the influence of the various variables involved in the indirect technique. Critical dies are employed as well as microscopical measurements of dimensional change. The use of alginates is now being employed clinically for correlation of the laboratory results obtained so far.

10. *Effect of Particle Size of Amalgam Alloy*—Dental Materials Department

An investigation of the effect of particle size of amalgam alloy upon its physical properties. Specially prepared samples of amalgam with a regulated known surface area have been obtained and the influence of the particle size upon dimensional change, flow, and strength is being studied.

11. *Evaluation of the Reversible Hydrocolloid Technique*—Dental Materials Department

Under this grant a comprehensive evaluation of the reversible hydrocolloid technique is being made. Two methods of application are being used; one involves scientific measurement of dimensional change as influenced by various variables, and the second method makes use of impressions taken of very critical types of cavity preparations. Such factors as the effect of storage, method of removal from the mouth, tempering temperature, method of chilling, etc. are all being studied. Five commercial hydrocolloids have been employed in this research. At the present time, studies are being made of the

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Courses in Advanced Operative Techniques To Be Offered

Indiana University School of Dentistry is presenting a series of courses in Advanced Operative Techniques throughout the spring and summer of 1951.

The first course will be given February 12-16, the second course March 5-9, and the third course April 9-13. Each course will run from 9 to 5 daily and the enrollment of each class will be limited to 16. The fee will be \$75, payable at the opening of each course. The dental school has requested that this course be approved by the Veterans Administration but has not yet received official approval.

The course content will include discussions of the newer acrylic filling materials and the Airbrasive technique. Ample opportunity will be given each one taking the course to work with an Aident unit.

If you desire any further information, please call or write to Dr. Drexell A. Boyd, Head of the Operative Department, or to Dr. Maynard K. Hine, Dean, Indiana University School of Dentistry, 1121 West Michigan Street, Indianapolis 2, Indiana.

Alumni Honored

The Mid-Century Issue, (June 1950) of the Journal of the American Dental Association carried a memorial section honoring 54 dentists who have given outstanding service to the profession during the past 50 years. Indiana University School of Dentistry had the following alumni chosen among these "Notable Contributors to Fifty Years of Progress, 1900-1950."

From the Army, Col. Robert T. Oliver, Class of 1888.

From Southern California, Dr. Milius M. House, Class of 1903.

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Dean Hine Appointed Dental Consultant

Dr. Alvin C. Eurick, President of the State University of New York, recently announced that Dr. Maynard K. Hine has been appointed the dental consultant on the central administrative staff of the State University of New York to advise them in the development of their educational program in dentistry. This university is building two new medical centers in New York State and is planning to include dentistry in its program. Since the development of dental education in New York State will have an effect on dental education in the United States, Dean Hine's appointment is considered an important one.

Faculty Appointments

Dean Hine is happy to announce that four new men have been added to the staff of the dental school.

Dr. William G. Shafer has been appointed full-time instructor in Oral Pathology. Dr. Shafer graduated from Ohio State University School of Dentistry in 1947 and then spent two years in graduate study at the University of Rochester. He was awarded a Master of Science Degree in pathology in 1949. During that time he held fellowships from the National Institute of Health and Eastman Dental Clinic.

Dr. Gilbert D. Quinn has been appointed as part-time instructor in Periodontia. He was graduated from Indiana University School of Dentistry in 1933.

Dr. John W. Bach is now a teaching fellow. He graduated in the 1949 Class of Indiana University School of Dentistry, having received his Bachelor's Degree from Dickinson State Teachers College in 1941.

Dr. Jack D. Denison, Class of 1950, has been appointed dental intern.

Library

by Rita Downing Fowler

In this issue the library column is being devoted to reviews of four recent and significant publications on dentistry. All of these titles are available in the library.

Brodsky, R. H. *Atlas of Oral and Facial Lesions and Color Film Library*. Baltimore, Williams and Wilkins, 1948.

This new style of presentation of an atlas and slides dealing with oral and facial lesions is, in many ways, far superior to the usual textbooks dealing with the subject. The author does not attempt to include those rare lesions seen only in the "specialty" hospitals, but rather limits the subject matter to cases which nearly every dental student should have seen at least once during his professional training. In line with the modern trend toward visual education, the color slides presented are an invaluable adjunct to the teaching of oral pathology.

Inflammatory reactions, bacterial and mycotic infections, congenital abnormalities, neoplasms, deficiency diseases, and a rather wide variety of other lesions, all of which may be contacted and should be recognized by the practicing dentist, are adequately illustrated. The supplemental atlas, dealing with each slide individually, discusses the salient features of each condition and touches briefly on the recognized therapy.

For teaching purposes, it is unfortunate that illustrative photomicrographs could not be included, either in the slide set or as separate plates in the atlas. Notably absent from the series of slides is a lesion frequently unrecognized — the mucous patch of syphilis. However, disregarding such minor inevitable omissions, the great

value and wide possibilities in the use of this set are clearly obvious.

Reviewed by Dr. W. G. Shafer

Bunting, R. W. *A Textbook of Oral Hygiene and Preventive Dentistry*. Philadelphia, Lea & Febiger, 1950.

This textbook is dedicated to Alfred Civilian Fones, D.D.S., whose book, *Mouth Health*, published in 1916 with revisions in 1921, 1927, and 1934, rendered an incalculable service in the presentation of the subject to the profession for many years.

Following the same general plan as Dr. Fones, who had as his collaborators leaders in dental science and literature during that period, Dr. Bunting, who is in his own right credited with valuable research in the field of preventive dentistry, is ably assisted with his text by leaders in the field of today.

In the first chapter oral hygiene is defined as "the science of mouth health and its preservation which might, in broad interpretation, include the entire scope of dentistry." In succeeding chapters on the "Histology of the Oral Structures" and the "Physiology of the Mouth," adequate background is provided for complete understanding of chapters on "Dental Caries," "Stomatitis," and "Periodontal Disease." The latter is of particular importance since such diseases cause the loss of more teeth than all other dental diseases combined. The thirty-six page discussion on "Oral Prophylaxis" places emphasis on the ten essential procedures which should be followed for maintenance of oral hygiene. In the chapter on "Public Health Dentistry" the author relates the development of this field of service through the contributions of governmental

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and non-governmental agencies. The research achievements of the U.S. Public Health Service and dental practices to be encouraged by dental health education are outlined. The last chapter is devoted to the history of the dental hygiene movement which was initiated by Dr. Fones and which has been supported and promoted by Dr. Bunting, who has included courses for dental hygienists in the School of Dentistry of the University of Michigan for many years.

This is an all-inclusive, helpfully illustrated text which covers the entire field of preventive dentistry and presents only such related factual data as have been supported by adequate scientific investigations. It should be a useful addition to the library of any dentist or dental hygienist.

Reviewed by A. Rebekah Fisk

Miller, S. C. *Textbook of Periodontia*. 3d ed. Philadelphia, Blakiston, 1950.

This well known book undoubtedly will remain a leading textbook in periodontia. It provides a clear, readable exposition of the various biological laws and concepts necessary for a complete understanding of periodontal problems.

In the preface to this edition, the author quotes Dr. C. N. Johnson as follows: "The common statement that 'Pyorrhea cannot be cured' has given way to the admonition, 'To make the offhand statement that pyorrhea cannot be cured and let it go at that is a travesty on fact and an acknowledgement of gross inefficiency on the part of the one who makes it.'" This text is designed with the purpose of informing the dental student and the practitioner that most periodontal conditions can be treated successfully.

The material is presented in an orderly manner starting with the physiologic basis of periodontal treatment and then showing the clinical significance of the histopathology of the gingival tissue. The factors responsible for periodontal disease

and the various treatments of these conditions are discussed and illustrated thoroughly. A chapter on psychosomatic relations in etiology of periodontal disease is a valuable contribution to this edition and to this field. Other equally important additions to the third edition are a chapter on periodontal disease in children and the role of internal medicine to periodontal disease. There are many new illustrations to aid in making Miller's a well rounded and desirable textbook in periodontia.

Reviewed by Dr. Henry Swenson

Zeisz, R. C. and Nuckolls, James. *Dental Anatomy: The Form and Function of the Permanent Teeth*. St. Louis, Mosby, 1949.

A study of this text must bring a comparison with similar works by Dewey, Diamond, and Wheeler. The descriptions here are based on the original work of G. V. Black concerning measurements of teeth. Black's average measurements are accepted without question in this book while Wheeler's recent work shows a table in which some exceptions to this acceptance are noted. Dewey also called attention to slight variations.

The descriptions of the various teeth are much more in detail in this work than in Dewey's *Dental Anatomy*, but not any more so than in Wheeler's. These added details, with the abundant illustrations, make a remarkable and comprehensive book, equally good for a classroom text or a reference work. Since a proper conception of tooth form, relation, and function is something which must be taught the student all through his school life and not just during his first year, I have always thought a more simple style better suited for the introductory work, considering the small amount of time allotted to the teaching of this subject.

This book has that type of writing. In my judgment it is surpassed by Dewey on

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Alumni Notes

by Mrs. Cleona Harvey

Best wishes for a peaceful 1951! We have received more letters from alumni in the last six months than in any previous comparable period—but far too many of them contain requests for transcripts or certification of graduation, etc., and not enough news about the writer. Of course, we realize quite well what has occasioned the need for transcripts, and we also know that once again we are faced with the very difficult task of keeping up our alumni files with war going on and addresses changing every day. So, PLEASE drop us a note and give us your APO number or your new address so that we can keep in touch with you. It has been good to hear from so many of you and we shall give our readers some of the many interesting bits of news, etc., that you have sent us.

Elsewhere in the Bulletin you will find the addresses of the 1950 Class, and perhaps right here is a good place to give you some news concerning them. We heard from Dr. Harrison recently and believe you, too, will enjoy the last paragraph of his letter, "Guess everything is fine at old I.U. In my moments of stress I wish that I were back within its protecting walls. There are more stresses, strains, and bumps to this private practice of dentistry than I dreamed there could be. Warn the boys as they go through that they are in their most peaceful days." I let some of the seniors read his letter and they seemed a bit skeptical—perhaps they will live to be convinced. Dr. Daily is in Korea; Dr. and Mrs. Harry Johnson have a baby girl, Nancy Elizabeth, born September 30; Dr. and Mrs. Robert Harris report they are living in Pekin, Illinois, but Dr. Harris' office is in Peoria, where he took over the practice of Dr. J. W. Weidner, who retired because of illness;

Dr. Heimansohn writes that his work at the Walter G. Zoller Memorial Institute is very interesting and informative and he sent us some very fine pictures of the operative room at Zoller; We finally heard from Dr. Dick but it seems he had a time finding a place to live and says, "Our office is open and have several patients lined up for work"; Dr. Denison comes out to the school three times a week and assists in the operative department—we understand wedding bells are to ring for him in the very near future; Dr. Light is enjoying his internship at Medical Center in New Jersey and reports "there is a great deal to learn at this tremendous medical center and I am literally staying up night and day to gain what I can"; Dr. and Mrs. Hine had a very enjoyable visit with Dr. and Mrs. Moseley when they were in New Orleans recently; Dr. Vorhies is pursuing a full-time graduate course in Orthodontia at I.U.S.D. and I believe that completes the news of the 1950 Class.

Our Guest Book listing is not as long as usual but it has some old timers as well as very recent graduates in it: Winston Warren, August '45, 203 W. High Street, Rockville, Indiana; Harold J. Compton, '47, 361 E. Clinton Street, Frankfort, Indiana; John W. Bach, '49, 104½ N. Lebanon, Indiana; Robert Marlette, '48, Dental Corp, Ft. Benning, Georgia; Richard Starr, '46, 1536 N. W. 36 Street, Miami, Florida; Robert D. Avery, '48, 448 N. Jefferson, Huntington, Indiana; Larry Lang, '47, 318 S. Walnut, Muncie, Indiana; Donald Biggs, '49, 508 S. E. 1st Street, Evansville, Indiana; Hayward Flickner, '49, 1013 Parrett Street, Evansville, Indiana; Charles Rhodes, '46, 301 E. Jefferson Street, Franklin, Indiana; Albert DeFrank,

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'48, 244 Main Street, Hagerstown, Indiana; Ernest D. Cofield, '07, 427½ N. Morgan Street, Rushville, Indiana; John S. Ellar, '18, 512 First National Bank Building, Albuquerque, New Mexico; William Van Horn, April '44, 312 Merchants Bank Building, Terre Haute, Indiana; James Wesner, April '44, 814 Hulman Building, Evansville, Indiana; Paul Asher, '27, 3801 Broadway, Gary, Indiana; Charles R. Herrick, '45, 221 Center Street, Hobart, Indiana; Frank Loskot, '36, 288 Broad Street, Bloomfield, New Jersey; Everett R. Amos, '50, 1611 Ohio Boulevard, Terre Haute, Indiana.

Dr. John Graffeo, '47, wrote in September that he was married in June to Dina Minuado and they spent their honeymoon in Bermuda. He informs us that he is a strong advocate of married life! and also that he has an excellent practice and is proud of his Indiana training in dentistry, and hopes to visit us one of these days.

Dr. Robert Louis Moss, '47, was married to Elinor Carpenter on June 17 and in September he joined the staff of the dental school as a teaching fellow. It seems like old times to have one of the Moss twins around and he seems to be enjoying himself assisting in the teaching of anatomy as well as doing some surgery now and then!

Speaking of the Moss twins, we were more than pleased to receive a beautiful Christmas card from Dr. and Mrs. Richard Moss, who are in Japan.

Mrs. Robert Marlette writes from Crawfordsville, Indiana (404 E. Jefferson) to tell us that Captain Marlette, '48, is stationed in Japan at the Tokyo General Dispensary and at the time he wrote in November had not met anyone from home. We hope by this time he and Dr. Moss have located each other. Before this article went to press we had a letter from Dr. Marlette with some very interesting news, "It's 20° below outside and I think the ink is trying to freeze . . . con-

cerning information as to our present situation, I'll have to refer you to the local paper. At the very least I can say we have been under constant attack for days, it is bitter cold, hellish working conditions, and even a trifle dangerous at times. Our withdrawal has been very orderly; I believe we have inflicted severe punishment on the slant eyed "Commies," but we also have been forced to take as well as receive . . . You also might be interested in knowing that on the way to my port of embarkation, Margaret and I stopped in Los Angeles and spent a few days with the Crosswhites. We of course had a wonderful visit and he has a nice office and practice in small suburb out of Los Angeles." We hope the next time Dr. (Captain) Marlette writes that he has better news of the fighting front. His address is Captain 0-60102, APO 1052, PM, San Francisco, California.

Dr. Arthur T. White, '92, of 345-7 Parkway Building, 117 East Colorado Street, Pasadena 1, California, writes this very interesting note "The June '50 issue of the Bulletin intrigues me. It carries me way back, before most of you were even a twinkle in your mother's eye. A young buck named Asher speaks of himself and associates of a past generation, well, well, hark back to '92 and what have you? 56 of us started out then, and where are we now? . . . I am still at it and enjoying most all of it, altho sometimes feel somewhat fatigued come four o'clock. I have enjoyed the Bulletin very much. Sure a fine looking bunch of seniors they turned out this year. I see most of the Indiana boys here, once in a while—Lucas, Kibler, House, and one or two others. Here is Powell's address, should he not be listed (and we had him living at Mattoon) A. Archie Powell, 1984 Lundy Avenue, Pasadena 6, California."

We certainly are pleased to hear from the men who have been practicing dentistry for so many years and are still en-

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joying life *and* the Alumni Bulletin!

Dr. William H. Rowand, '86, (2401 Holmden Avenue, Cleveland, Ohio) says "Now I was the youngest member of the Class of 1886 and as I am now 86 years old I doubt if any of the rest are living. There were only 12 of us that year, but if you know of any I would sure like to know where they are. I practiced for 51 years, then thought I had gone far enough so quit and bought a house trailer and my good wife and I have had a good time traveling with it. We have spent 13 winters in Florida . . . I find that doing nothing is the hardest job of all."

Dr. Charles Eller, '07, Suite 601, First National Bank Building, Albuquerque, New Mexico, reads the Alumni Bulletin and writes us thus: "Received your Bulletin yesterday. Read it today. You graduated a fine looking bunch of boys. I am sure they will all do well."

We wish we could locate Dr. James Blain Eastman, '13, as Dr. J. C. Black, '13, of 355 W. 79th Street, Chicago 20, Illinois, wishes to contact him. We thought we had found Dr. Eastman in Elkhart but he was not the one concerning whom Dr. Black inquired. If any of you know our Dr. Eastman's address, please write Dr. Black or us as we shall be very happy to have this information.

Mrs. Glenn Bollinger wrote for a copy of the transcript of Dr. Bollinger, '46, of Box 283, Russiaville, Indiana, and thinks he will be in the army soon. Then we quote, because we like it, "We both enjoy the Dental Alumni Bulletin so much. It's the best source of news on old friends." Thank you, Mrs. Bollinger, and if all of you dear alumni will just write us a note now and then more people will read more about more people! ! !

We were quite interested in a letter from Dr. Paul K. Losch, '28, in answer to an inquiry concerning charts in pedodontia. He ended his letter with this paragraph, "I can't help the feeling of nostalgia on seeing the Indiana University

heading on your letter and as you may or may not know, I graduated there in 1928." What a surprise to learn further that Dr. Losch was our first dental intern in the Riley Hospital 1928-29 and he and our Dr. McDonald had a visit together when Dr. McDonald was in Boston recently. Just another proof that it is a small world!

Dr. Gilbert L. Mellion, August '43, 217 Main Street, P.O. Box 246, Rocky Hill, Connecticut, wrote Mr. Phillips such an interesting letter and I am sorry that space will not permit printing all of it. He expressed the hope that his classmates would all write us a news note so they could check up on each other. He is the only dentist in Rocky Hill, a town of 5,000 and says that "Aside from the office activities, I've been lecturing to lay groups for the Connecticut State Dental Association and at present I am representing the dental profession of Connecticut on the Connecticut Nutritional Council. I might add that last year while Chairman of the Council on Dental Health for Hartford County, it was my pleasure to be working with some other graduates of I.U.S.D. . . . It is only fair to say it is with a great deal of pride that we follow the growth of our school as well as articles written by members of the faculty . . . I should add one proud father note—we now have a boy three and a half and our second son was born July 21, 1950."

Way back in June Dr. Daniel Laskin, '47, University of Illinois College of Dentistry, 808 Wood Street, Chicago, Illinois, brought us up to date as follows: "I thought you might be interested in hearing a progress report on my activities. Right now I am in the process of finishing up a residency at Cook County Hospital. I will either get my M.S. in the fall or else I will finish up during the next year and get it after my residency. I am planning on going east in August

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Abstracts of Prize Winning Senior Essays

Each year the School of Dentistry awards prizes to the four outstanding essays written by members of the senior class. Those men who won the awards from the Class of 1950 have abstracted their papers for this issue of the Alumni Bulletin.

The Role of the Endocrine Glands in Relation to the Growth and Development of the Dentition

One of the many systemic factors contributing to oral and facial disturbances is the endocrinopathies. It is the dentist's duty in the course of preserving the health of his patients to be ever aware that this may be the cause, direct or indirect, and should thus have some picture of the relationships that exist between the endocrine systems and the oral presentation. It must be pointed out that at the present, specific findings for particular glands can only be reported in experimental cases, for only there can the gland be isolated, for in the human what we see is more often a picture of many glands complementing each other rather than a single, causative gland. And so, Schour may conclude that the Thymus gland has no effect upon the teeth while Wolf reports ten effects of this gland upon the oral tissues.

Although I am mainly concerned with endocrine dysfunction upon the development of the dentition, I cannot specifically isolate the effects of endocrines on the teeth themselves, but must consider the bone and soft tissue which also affect the dentition if they are themselves affected.

Briefly reviewing the major effects of the various glands:

(1) The anterior lobe of the pituitary controls practically all growth phenomena during infancy, childhood, and adolescence. Through its tropic hormones it controls the other endocrine glands and thus is considered the "major factor." A hypofunction results in marked deceleration in growth of all tissues. This is seen in the slow development of the cranium and face giving an appearance of a much earlier chronologic age. With the retention of deciduous teeth, the eruption of permanent teeth is delayed. The permanent teeth show juvenile characteristics, such as, parallel pulpal walls, short roots, widened pulp chamber, and a wide open foramen. Hyperfunction will cause an increased bone growth, which in nature is poorly calcified. The patient will exhibit an enlarged tongue, which together with the larger arches, contributes to teeth which are widely spaced.

(2) The thyroid gland with its secretion of thyroglobin complements the pituitary in controlling metabolism. Hyperthyroidism in children is relatively rare and brief and only in experimental cases can definite dental defects be seen. Hyperthyroid conditions result in general arrest of bone growth. The mandible is displaced downward and backward and the maxilla has a narrow high arch. The teeth are less affected and appear large, in proportion, and are crowded. Their eruption is retarded and shedding of the deciduous teeth is delayed so that two sets of anterior teeth may be encountered.

(3) Gonadal hyperfunction results in precocious development of dental structures with early eruption but subject to such frequent caries that the teeth may be lost before the age of twenty. Findings

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in hypofunction show alveolar atrophy and gingival changes as seen in pyorrhetic conditions. Growth of long bones is stunted, the jaws showing an increase in amount of bone with the exception of the ramus, which appears short.

(4) Overactive parathyroids result in depletion of calcium from the jaws so that unilocular, multilocular cysts and giant cell tumors are seen, associated with a considerable periosteal reaction which manifests itself as epulides. The jaws are thus soft and malocclusions are seen early. The condition of the calcification of the teeth is controversial. Underfunction affects the physiological activity of the enamel epithelium so that clinically visible hypoplastic defects may result with a weak brittle tooth.

(5) Diabetic patients are seen to have periodontoclasia. There is a non-specific gingivitis, the gingiva becoming swollen, dark red, soft and detached from the teeth.

(6) Adrenal dysfunction as seen in Addison's disease is the pathognomonic appearance of the pigmentation within the mouth. But the only evidence of dental pathological conditions has only been met in experimental rat tests.

(7) The pineal gland plays no part in abnormal dental development because even those striking cases of pineal pathology show perfectly normal teeth.

(8) As far as the relation of the thymus to oral structures is concerned, the present state of our knowledge of the action of the thymus is still in its infancy and reports concerning dental changes are conflicting.

In spite of all the aggravated dysfunctions that are attributed to single or multiple glandular disturbances, the practitioner must be slow in placing a finger on a particular condition and cause. At the same time in the light of recent investigations, a possible relationship may exist and the thorough practitioner must, when local therapy fails, consider the en-

docrines when searching for a systemic background.

Jack Light

Study Outline of Dental Therapeutics

The ability to carry on sound research is an enviable quality. An individual so gifted is to be admired and certainly is a valuable asset to any institution or organization. If, however, the findings of such work are not available in a form that is thought-provoking and logically presented to the student, much of their value has been lost.

The *Study Outline of Dental Therapeutics* has been written with several objectives in mind. It is intended in the main to lay the groundwork for a type of student's educational guide. The writer himself has felt the need for such a study outline in several courses. This was particularly true in those courses where of necessity a wide variety of subjects was discussed. To have had a similar shortened version of the materials discussed as an adjunct to the prescribed text would have been a genuine aid.

The *Study Outline* is so constructed to meet the needs of a one semester's lecture course in dental therapeutics with sufficient time and elasticity of material to allow for the usual written reviews. Among those topics discussed in a briefed but pertinent version in the *Study Outline* are:

(1) The professional differentiation and correct use of rational and empirical therapeutics.

(2) The vocabulary and definitions used in prescription writing.

(3) The mechanics of prescription writing.

(4) Discussions of hypnotics, analgesics, and sedatives.

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(5) Discussions of antipyretics and antisiologogues.

(6) Discussions of cerebral, medullary, and spinal cord stimulants.

(7) Discussion of cardiac stimulants and depressants.

(8) Discussions of blood discrasias and hemostasis problems.

(9) Discussions of the antibiotics in dentistry.

(10) A summary of the above discussions as applied practically in the dental office.

A. E. Felten

The Effect of Carcinogens on the Mucous Membrane of the Mouth of Mice

This work was pursued in an attempt to produce intraoral epithelial tumors or precancerous changes of the epithelium.

The first group of mice was treated with 20-methylcholanthrene in a 0.6% solution of benzene by repeatedly painting the mucous membrane of the lower labial vestibule. This method produced papillomas of the interscapular epidermis on the control animals but no epithelial changes on the mucous membrane; therefore, the method was modified and another carcinogen was added.

In one group the 20-methylcholanthrene in a 1.2% solution of benzene was applied and covered with varnish. In the other group 9:10 dimethyl, 1:2 benzanthrane in a 1.5% solution of fingernail polish was used. These variations were tried in an attempt to keep the carcinogen localized.

Each method produced hyperplastic lesions on the epidermis of the interscapular area of the control animals; however, the mucous membrane was not affected. The sites of application were examined grossly and microscopically.

Tissue sections revealed no changes from the normal.

Some intrinsic factor may be present to protect the mucous membrane of the oral cavity; however, it seems more reasonable to assume that the cleansing action of the tongue and saliva prevented the localized action of the carcinogens for a long enough time to promote precancerous changes or hyperplasia.

John B. Spaulding

Rotary Instruments and Airbrasive

Dentistry's greatest service is to prevent the loss of human teeth. Dental caries has long been recognized as mankind's most prevalent disease. Therefore, it is of vital importance that we as dentists have methods by which carious teeth can be restored to normal function and retained. It is of almost equal importance that these methods are of such nature that they meet with general acceptance on the part of the public.

To attain the highest degrees of permanency in restorations prime emphasis must be placed upon *cavity preparation*—a phase of operation which gained little attention until fairly recent times. Formerly, what instruments were employed were for the removal of caries rather than for cutting away tooth structure. Later, the file and other simple hand instruments were used for this purpose. Then came a trend toward the use of rotary tools, beginning with the finger-operated hand drill. There then developed a search for a superior method of powering drills. Thus, the problem became principally one of power application rather than one concerning the cutting tool itself.

From the patient's standpoint it made little difference whether the drill was powered by means of the fingers, by hand

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Class and Fraternity Notes

FRESHMAN CLASS

The freshman class of Indiana School of Dentistry held class elections on October 4, 1950. Robert Hammelman was elected Pres.; Lloyd Phillips, Vice-Pres.; and Marcella Phillips, Sec.-Treas. Dr. Day, instructor of dental biochemistry, was chosen as faculty advisor, while Robert Blu and James Colland were given the task of creating harmonious conditions between students and faculty. At the second meeting, the president appointed the social committee. H. P. Synder, chairman, Harry Kerr, James Worcester, Robert Bresick, and Jack Krause will plan all the social activities for the year. The first social event will be a closed class party to be held on November 20. A formal dance in March will be the big event of the year. The class also hopes to have at least one picnic next spring.

Despite forewarnings of the hard struggle of a freshman dental student, everyone turned ghostly pale when shown his schedule for the semester. "A 7:30 class every morning?" was the agonized cry of all. Notwithstanding this blow, sixty-eight hardy souls tramping across the I.U. campus every morning can be heard mumbling, "Origin, vertebral column; insertion, humerus; — —." This discourse is the result of that maniacal subject, gross anatomy, in which one saws, cuts, rips, and by many other devious ways, succeeds in "dissecting" a cadaver. The only obvious thing about this course is the horrible smell which emits from the laboratory. Soon you become accustomed to it, however, and after awhile you actually enjoy finding out what makes "George" tick.

Then, too, there is histology lab, where you spend a three hour period trying to find fibroblasts and reticular fibers and such. After hours of frustration you finally admit to the lab assistant that you can't find the darned thing, and he triumphantly takes over. With a flourish of twirling knobs, and adjusting mirrors, and after cleaning the lens a dozen times he finally exclaims, "Here it is!" You look and see—nothing. Oh well, maybe it just doesn't show up with that stain.

Biochemistry is an experience, too. Maybe you never thought it was possible to make a 300% error in an experiment, but you soon find out it is. There are enzymes and vita-

mins, etc., which can be awfully unpredictable.

Then there is dental anatomy where you try to make a block of plaster look less like a scoop shovel and more like a tooth. After hours of tedious labor you hopefully present it to the instructor who says, "That's horrible, but we have plenty of blocks, so start over." It is at a time like this that you remember those words of wisdom, "Your first year in dental school will really be tough," and you wholeheartedly agree.

Marcella Phillips

SOPHOMORE CLASS

In the June issue of the *Alumni Bulletin* our secretary reported on plans for the annual class picnic which winds up the year's activities at Bloomington. Ours differed from picnics held in the past as we broke a long-standing tradition by inviting the wives and girl friends of the class members. We are happy to say that the party, which was held at Yellowwood Lake, was a complete success, and we hope that the present freshman class will follow the precedent.

There was sun bathing and boating, volleyball and softball, horseshoes and cards, depending on the number of ergs one had to spend. We had little difficulty getting on the outside of five delicious hams baked to perfection by Mesdames Holder, Horn, Heath, Vogel, and Reinking. Tom Garman has forgiven us for tossing him in the lake, and we have forgiven Holly Sears for arriving three hours late with the liquid refreshments. Already there are rumors afoot concerning another picnic in the spring.

As for the present, we have hurdled the first-of-the-semester jitters and have settled down to a smooth routine. The professors no longer hesitate when pronouncing Asahina, Plaschkes, Potasnik, and Ruiz. The class is now concentrating on the more serious side of school here at Indianapolis, where there is more practice and less theory. We have gotten our hands on real live mouth mirrors and handpieces which we are using on real dead dentiform teeth. Faced with the denture difficulties of "Minnie" the edentulous cast, the sopho-

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mores have decided to prepare sixty-one sets of dentures for her only.

The election of class officers was held at our first class meeting early in September. The gavel was turned over to Loftus (Doc) Brown, who will preside as president, and Dave McClure, who will assist Doc as the "Veep." Bill Rigg was elected to count the cash, while Chuck Sabel records the minutes. Dick Rein-king and Bill Crawford will be representing the sophomores on the student council.

The name "Bill Crawford" will ring a bell with Indianapolis viewers. He is the Omar weather man whose accurate weather prognostications are seen nightly, Monday through Friday, over WFBM-TV. Bill came by his avocation in the Air Force, where he was a meteorologist par-excellence.

We are looking forward to an informative, interesting year, and will report our progress in subsequent issues of *Alumni Bulletin*.

Charles J. Sabel

JUNIOR CLASS

The eighty-four members of the class of '52 are now proudly calling themselves juniors. The first day of the junior year opened with a bang as most of us found ourselves assigned a patient on that first afternoon. That first patient was approached with both hesitation and eagerness; hesitation for fear that our nervousness would be too apparent, and eagerness to put into practice the things we had worked on so hard during the previous years.

As we gathered around the appointment window waiting for our patients to come in, such statements as, "I sure hope my first patient needs a prophy"; "How do you fill out this form?"; "Have you put on a rubber dam yet?"; "My patient didn't show", and "I have my first operative patient this afternoon", were often repeated. As the weeks go by, the trend of the conversation has turned to detailed descriptions of the work done on some particular patient or of discussions of the different methods of putting in a kadon or amalgam.

The summer activities of the class were varied. Approximately one fourth of the class spent some time in the clinic during the summer session. Several of the fellows were in ROTC Summer Camp at Fort Sam Houston for six weeks. The rest of the class was busy as various jobs in various parts of the state.

James Barnes, Charles Hutton, Harvey Thomas, Dave Huff, and James Humphrey were married this summer. Since school closed last June, there have been additions to the families of Hal Glasser, Donald Glassley, Ray-

mond Rothhaar, Robert Walters, George Houck, Rowland Applegate, and Simon Kleegeer. A total number of fifty-nine of the eighty-four members of our class are now married. Twenty-one of the fifty-nine have children and there is a total of thirty-three children. As of November 10, 1950, including wives and children, the class of '52 totals 176. This total seems to be steadily on the increase and it is impossible to vouch for the accuracy of this figure by press time of this bulletin.

The school year has settled down, midterms are upon us, and we are already planning our Thanksgiving and Christmas vacations. It will not be long before the first semester is over and by that time we will be 5/8 of a dentist.

Robert Webb

SENIOR CLASS

As we started making clinic appointments in September we began to realize that at long last we could see the end of our formal education just over the horizon.

Reminiscent of conditions a few years ago, many of the men were talking about Service connections. High on the list was whether or not certain individuals had been accepted for the Senior Program. Many were looking forward to receiving their first check as Second Lieutenants or Ensigns under the program. Some even had the checks spent presumably in an effort to fill the newly enlarged parking lot.

The wild crowding and fighting for units in the clinic that was expected due to the large number of students eligible for clinic work this year never occurred. A series of special clinics were designed to broaden our scope of dental education as well as make the most judicious use of all available units. These clinics will touch on such things as the latest in plastic restorative materials, medicine and its relationship to dentistry, and the use of the Airdent machine. There as those who are fearful that they won't be able to get all of the gold foil requirements taken care of, however.

Dr. Ernest D. Cofield, '07, dropped in on his way back from the convention in Atlantic City and was discussing some of the changes that have taken place in the surgery department since he originally moved it from the old building on Pennsylvania Street to its present location. He recalled instructing some of the fathers of men in our class. "It's been a long time," he said, nodding with some nostalgia.

At our first business meeting we elected

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officers as follows: President, Robert Geedy; Vice-president, John Bushong; Secretary, Max Copeland; Treasurer, Dean Taggart, Jr. The student council senior posts for this year went to Donald Walden and Carl Steinman.

Robert Geedy

ALPHA OMEGA

The new school year find Alpha Omega steadily gaining momentum under the able direction of its new officers: Jack Prost, president; Sidney Schwimer, vice-president; Charles Hamer, treasurer; and Jerry Epstein, secretary.

The new social program for the first semester promises to be both instructive and entertaining. The speaker committee will obtain guest speakers, both in and outside of the profession for the monthly dinner meetings. Previously, news commentators, sport figures, and other interesting personalities were guest speakers at fraternity meetings.

On October 2, 1950, Dr. Paul H. Brown of Chicago presented a clinic demonstrating both space maintainers and ethyl chloride anesthesia. This clinic was given at Dr. Samuel Patterson's office for the fraternity.

The last dinner meeting was held October 23rd at the Italian Village. The guest speaker was Dr. Harry Epstein, who presented an interesting discussion entitled "Reminiscing," which reviewed the industrial growth and development of the United States with emphasis upon dentistry. Dr. Epstein also discussed what dental school was like during the years of 1915-1918 when he attended school in Indianapolis.

We all feel that this coming year will be a full and successful one and that the new officers will prove to be as strong guides as were the former ones.

Robert Fleishman

DELTA SIGMA DELTA

Under the guidance of our friend and advisor, Dr. Wade LaRue, the men of Delta Sigma Delta opened the school year by installing a new floor covering in our fraternity house. The new steel grey flooring greatly enhances the beauty and utility of the first floor, and it represents the most extensive change made in the house in recent years.

Under the gavel of student Grand Master Bob O'Neal and various other undergraduate house officers, Xi chapter of Delta Sigma Delta devised a new and ambitious social calendar for the school year. Highlighting these activities have been the Halloween Masquerade

Party and the Thanksgiving Dance. The costumes of many nationalities and several periods of history were represented at the Halloween party, but voted the most unique and unusual was the outfit of Sophomore, Charles Sabel. Chuck surprised and delighted many members by coming dressed as the "Illustrated Muscle Man" of Gray's Textbook of Anatomy. Delta Sig's social committee, in tune with the holiday season, has planned a formal Christmas Dance which is to be given December the 16th.

The members of the Committee for House Improvement have provided the fraternity with new and useful equipment for our recently enlarged laboratory. Recently purchased by the committee were a new model trimmer, a dental lathe, and a new portable type dental motor and handpiece. Our laboratory is now outfitted to facilitate most all dental laboratory procedures; and those members living both in and out of the house have found it to be an invaluable supplement to the laboratory facilities provided by the school. This same hard-working committee recently accomplished the removal of our garage in order to provide additional parking space for the cars of our members.

Our plans for the future are to ever increase and expand the opportunities for friendship and brotherhood in our fraternity.

W. A. Shoemaker, Jr.

PSI OMEGA

As the fellows came straggling in to begin their studies this fall, they noticed that the Psi Omega House looked exceptionally clean in its newly painted green and white. Thanks to help from Alumni members and active members the remodeling is almost completed. The most outstanding addition is the plumbing facilities with ten lavatories and four showers distributed throughout the house.

A real fraternity is found in the discussions during meals at the house. During the noon hour, after checking the mail and eating a hearty meal, everyone relaxes. It's a game of cards, watching television, reading magazines, a nap for the night owls or a letter to one's family or girl friend.

We have a full quota of sophomore pledges. Adding to these several junior and senior neophytes, we will be pledging twenty-five members in a formal initiation on Sunday, November 19th. Since Thanksgiving vacation will begin three days later, it is doubtful that the pins will remain with some of the new brothers very long.

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A get-together stag smoker began our social calendar on September 29th. A social event is planned for each month of the school season. The Christmas party on December 9th is the one we are awaiting with great anticipation.

A costume Halloween Party was enjoyed by pledges, members, and friends on Saturday, October 28th. It was hard to distinguish the fairer sex from the stronger. Such costumes as a Frankenstein outfit, with elevated clodhoppers, fooled many until unmasking time came along. Music was distributed through the house via a new speaker system. A buffet lunch was served, and dancing, card playing and typical fraternity group singing prevailed.

Plans for the future are to remodel a few more rooms and to add more equipment to an already well organized new laboratory in the basement. Omega Chapter looks into the future with secure confidence because of its hard-working members.

Tony Chidalek

XI PSI PHI

Another school year is well started and the "Zips" have also inaugurated their program for the year. This promises to be a busy and progressive year for Theta chapter.

The "Coming Events" Calendar is crowded with new ideas and events. The chapter has begun a new series of monthly meetings held on the third Tuesday of each month in addition to the regularly scheduled business meeting held on the first Tuesday of each month. This new series is devoted to lectures, table clinics, and technique demonstrations concerning the various phases of dentistry with which the practitioner is confronted. The clinics are presented by alumni members who have graciously donated their time and talents to give us the benefits of their experiences in the various fields. To date lectures and clinics have been held on dental economics and inlay technique. Plans for future meetings include evenings devoted to prosthetics, crown and bridge, orthodontia and ceramics. The members of the fraternity have thus far shown genuine interest in the new program and have given it their whole-hearted seal of approval.

The social calendar of the chapter is also full for the coming year. Several informal parties already have been held and future plans call for at least one social function or get-together each month, to include a Christmas party, Hard-times party and a Semester's End Blow-out. We would like to extend an invitation to all the Alums to attend any or all

meetings, clinics, or parties whenever they have the opportunity. You are always welcome!

Fourteen new members were initiated into the fraternity this fall, the initiation ceremonies taking place at the house, 1511 N. Park, on the afternoon of October 28. Eleven sophomores and three juniors were taken into the organization. In the evening an initiation dinner was held at the Canary Cottage, followed by an informal party and dance at the house. We, in the active chapter, are well pleased with our new brothers and feel that you will be too, when you have come to know them.

That's about all the news and chatter for this time, fellows. We'll keep you posted from time to time on the activities and progress of our organization. Let us hear from you too so we'll know the how, where, when, and why of your claims to fame.

E. C. Thibodeau

ORAL SURGERY

(continued from page 4)

cillin are administered by the student in the deltoid muscle for adult and older children, and in the gluteous maximus for the younger children.

The junior students are required to attend the 1-hour lecture course each week given during the first and second semesters. The lectures include:

1. A review of the anatomical structures of the head and neck
2. Local anesthetic solutions
3. Conduction and infiltration technics for local anesthesia
4. Practical application of local anesthesia, including the handling of difficult and unusual cases
5. Complications of local anesthesia and their treatment
6. Sterile technic for handling patients in the dental clinic or office
7. Various technics for the extraction of teeth
8. Proper use of elevators, forceps, and other surgical instruments
9. Technic for making incision as well

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as the closure of the wound with sutures

10. The control of hemorrhage

During the first semester the junior students are required to attend a 1-hour lecture each week which includes an introductory course in general anesthesia for oral surgery. The lectures include the characteristics and use of such general anesthetics as nitrous-oxide, oxygen, Vinethene, ethyl chloride, ethylene, cyclopropane, helium, and sodium pentothal, with emphasis on nitrous-oxide, oxygen and Vinethene. The lecture course includes:

1. Indications for general anesthesia for oral surgery patients
2. Subnormal risks (pathological conditions presented by the patient requiring special precaution)
3. Preanesthetic and postoperative preparation of the ambulatory patient for general anesthesia
4. Signs and symptoms exhibited by the patient during the administration of a general anesthetic
5. The stages of anesthesia
6. The administration of nitrous-oxide, oxygen and divinyl ether or Vinethene as a general anesthetic
7. The technic of resuscitation

During the second semester the junior students are required to attend a 1-hour lecture each week in Materia Medica and Dental Therapeutics. The lectures include:

1. Nature of drug action
2. Classification of dental remedies
3. Selection of the remedy
4. Method of administering medicines
5. Prescription writing
6. Incompatibilities
7. Weights and measures
8. Average doses of the most important dental remedies

More stress is placed upon those drugs most used by the dentist such as antiseptics, sedatives, anodynes, hypnotics, antipyretics, antibiotics, respiratory stimulants, antisialagogues, hemostatics and styptics, caustics, irritants and counter-irritants, and the vitamins. Students are required to administer drugs to the clinic patients and write prescriptions for patients' home care and medication.

The Oral Surgery Staff of Indiana University

J. Frank Hall, Professor and Head of the Department

Ronald S. Ping, Assistant Professor

G. T. Gregory, Assistant Professor

Joseph A. Ropski, Instructor

Charles T. Frissell, Resident in Oral Surgery

Robert L. Moss, Intern in Oral Surgery

J. T. Waldo, Special lecturer

Thomas Bauer, Special lecturer

The Assisting Staff

Naomi Spears, Secretary

Mary Hammond, In Charge of Sterilizing Room

Nellie Ward, Appointment Clerk in Charge of Patients' Records

Leslie Tripp, Dental Assistant, Riley Hospital Clinic

The Oral Surgery Clinic, located on the second floor in the dental building, has fourteen chairs. Six to eight junior and senior students, about equally divided, are scheduled for one-half day period each morning and afternoon. One 2-chair clinic room is reserved for graduate students and special demonstration. Special cases are operated and demonstrated two half days each week by Dr. Hall or Dr. Gregory to five senior students during both semesters. General anesthesia is demonstrated one-half day each week during the second semester to six

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junior students. Patients are anesthetized and operated during this special clinic.

The Oral Surgery Clinic in the Robert W. Long Hospital is located on the fifth floor, next to the hospital's operating rooms. Outpatient adult cases are cared for by the oral surgery resident and intern under supervision of the oral surgery staff. Oral surgery cases are scheduled in the operating room by oral surgery staff members assisted by the resident and intern. The oral surgery resident and intern operate under supervision of a staff member. One senior student is scheduled on each of two afternoons of each week during his senior year. He operates cases in the dental clinic and makes ward rounds with the staff surgeons.

The Riley Dental Clinic is well equipped, having three chairs. This clinic includes an x-ray machine and dark room. Outpatient cases as well as hospitalized child patients are operated in the dental clinic by the oral surgery resident and intern. Hospitalized patients are scheduled in the operating room and operated by members of the oral surgery staff and the resident and intern. Two senior and two junior students are scheduled in the Riley Dental Clinic for one-half day each week. The students also are scheduled for ward rounds. One full-time girl, dental assistant, is on duty five and one-half days each week. The dental assistant is in charge of records, patients' appointments, and the handling of x-rays and processing of the films. The Rotary Hospital patients are also cared for in the dental clinic and Riley Hospital operating rooms.

Six senior students are scheduled two half days of each week at the Indianapolis General Hospital. Cases are demonstrated by oral surgery staff members and the resident and intern in the oral surgery clinic and on the wards. An abundance of traumatic injury cases are available for demonstration at this hospital.

Six senior students are scheduled one-half day in the tumor clinic, located on the third floor of the Outpatient Building. Head and neck and intra-oral cancer cases are demonstrated by members of the staff from Departments of Plastic Surgery, E.E.N.T., Radiology, Pathology, and Oral Surgery. The dental students have an opportunity to observe patients with all stages and kinds of cancerous lesions.

One senior student is scheduled four half days each week in the Medicine Clinic, located on the second floor of the Outpatient Building. The dental student works with the medical students. He has an opportunity to learn taking patients' history and physical examinations. The dental student does the oral examination.

The larger percent of all patients make their first periodic visit to the dental clinic or the private office because of pain. Nearly all patients registered at the School of Dentistry sooner or later are patients in the oral surgery department, providing an abundance of patients for the undergraduate and graduate students in oral surgery. All students scheduled on the oral surgery services are kept busy taking patient history, formulating treatment plans, doing the actual surgery, administering drugs or prescribing for sick patients from the time he enters the oral surgery clinic until the end of his scheduled period.

The oral surgery staff is unanimous in the belief that the student in order to increase his knowledge and develop surgical skill and sound surgical judgment should administer drugs, write prescriptions, and do the actual surgery under close supervision of competent instructors.

This is the seventh in a series of articles concerning the function and future plans of various departments in the dental school.

RESEARCH REPORT

(continued from page 7)

effect of certain variables upon the surface of the stone die.

12. *Correlation Between Enamel Hardness and Its Solubility*—Dental Materials Department

This is an investigation attempting to determine whether there is any correlation between enamel hardness and its solubility. Small areas of known hardness are subjected to a decalcifying solution and then analyzed for calcium and phosphorus. It is hoped that results of this study will determine whether or not harder enamel is less soluble.

13. *Effect of the Toothbrush Bristle Diameter Upon the Luster of Tooth Surfaces*—Dental Materials Department

An investigation of the effect of the toothbrush bristle diameter upon the luster of tooth surfaces. Brushes of known diameter are being employed and the effect upon the surface, both with a polishing and an abrasive agent, is being studied by means of a luster measuring device. Both rotated and stationary specimens are being employed.

14. *Clinical Observation of Rapid Curing Resins Correlated with the Physical Properties of the Resins*—Operative Department

This observation has been made by members of the department and has resulted in the establishing of a routine technic for their use. Also data of a clinical nature are being obtained that should be valuable in determining the value of this material as a restorative. This information should be of value also in determining the overall reaction of the dentin and pulp to this material over periods of time.

15. *Calcium Hydroxide and Similar Products as a Pulp Capping Material*—Operative Department

Dr. Patterson has instituted a study of calcium hydroxide and similar products as a pulp capping material and is collecting material that will help to determine clinical procedures to be used by this department.

16. *Endodontia Study*—Operative Department

Dr. Healey has been studying clinical data regarding the order and method of treatment used in filling root canals in the clinic. This includes the treatment record, and radiography study. The latter consists of pre-treatment, treatment, and post-operative pictures. These and the case records afford an opportunity to study the reaction of the tissues in various conditions to different types of treatment.

17. *A Study of the Rate of Flow and the Viscosity of Saliva*—Pedodontia Department

The Pedodontia Department is studying the relationship of dental caries rate with the rate of flow and viscosity of saliva.

CONTEMPLATED RESEARCH PROJECTS

1. Persistence of ingested chlorophyll in the oral cavity.
2. Permeability of hamster placenta to the fluoride ion.
3. Effects of the Airbrasive technic upon the pulp of experimental animals.

ALUMNI HONORED

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From New Mexico, Dr. Howard R. Raper, Class of 1906.

From U.S. Public Health Service, Dr. Clinton T. Messner, Class of 1908.

LIBRARY

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only one score. His paragraph on "Practical Considerations" following each detailed description could well be added here. A comparison by senior students between this book and the one by Wheeler, if made under classroom supervision, would be advantageous. Except in the teaching of tooth carving from plaster blocks, it is, I think, superior in all ways to the text by Diamond.

The diagrammatic outlines should be very helpful either to the student or to a graduate in practice. The ridges, grooves, surface outlines and limits, convexities and concavities, contact areas and especially the cervical area forms are shown in a dramatic but not an exaggerated way. It is my opinion that there are better than those in either Dewey, Diamond or Wheeler. Ridge areas, location and comparative size of the imbrication lines, the mesial surface concavities of the bicuspid and the marginal grooves are shown in a manner deserving special praise.

The section devoted to the occlusion of the permanent teeth is divided into six parts: Centric, Protrusive, Working, Balancing, Protrusive-Working and Protrusive-Balancing. This is further subdivided to show the function of each cusp in each type of occlusion. The concentration necessary to digest this part of the work is considerable but it is rewarding, particularly in discussion of the changes in these functions due to variations in tooth form.

There is a better than adequate section on the deciduous teeth, with detailed descriptions and diagrammatic outlines and illustrations.

The book closes with a "Glossary of Special Terms Used." The definitions given here are the best I have ever encountered.

This is a well-written book, not too difficult to comprehend, with fine illustra-

tions, valuable either as a text or reference work, and beautifully made.

Reviewed by Dr. John Johnston

SENIOR ESSAYS

(continued from page 16)

or foot power, water power, air motor, or electric motor; for he was still being subjected to the same sources of physical and mental torment. And, although, the dental rotary drill passed through a constant series of improvements from about 1938 until the present time, it remains highly questionable that the patient's opinion of it improved proportionally.

It cannot be denied that modern dental rotary tools provide the dentist with the means of establishing perfect cavity preparations. Mechanically, these tools leave little to be desired. However, the physical characteristics associated with the use of engine-driven rotary tools are such as to create a complex of unfavorable conditioned reflexes in the dental patient which results in a psychology which works to the definite detriment of the dentist and the dental profession.

Pressure, vibration, bone-conducted noises, and heat are the prominent factors in adverse patient reaction. Although much research has been done in an effort to dispense with or even lessen the effects of these factors, they are still basically inherent in all forms of dental rotary tools.

Technical problems relative to the successful application of kinetics to dentistry are numerous, but by 1946, the equipment had been improved to the point where it could be used for routine operative procedures and had been named the Airbrasive technique. Since this time well over 2,000 operations, including all types of cavity preparations, preparation for porcelain and plastic jackets, and prophyl-

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laxis, have been accomplished, with practically 100% elimination of the mechanical handpiece.

These operations revealed certain facts which may be considered significant from any viewpoint:

(1) Airbrasive possesses the necessary qualifications for establishing the outline, resistance, and retention forms in the preparation of cavities which are considered essential for the successful retention of the filling, its resistance to stresses of mastication, and prevention of recurrence of decay.

(2) Once familiarity is gained, it is easier to use than the mechanical handpiece.

(3) It is inherently free of the worst characteristics associated with the use of rotary tools.

(4) Patients do not fear its use.

Airbrasive is primarily a completely different method of cutting tooth structure. Its distinction lies in the fact that it is completely non-mechanical in nature and is practically free of the fear-stimulating and painful characteristics which are inherent to rotary tools.

In the final analysis, the effective employment of Airbrasive for cavity preparations or other cutting operations requires: first, a thorough knowledge of all fundamentals upon which the process is based, and second, the establishment of the necessary co-ordination between the eye, hand, and foot for precise control. Once skill is acquired it will be found that much less physical and nervous effort is expended during the operation than when conventional methods are used.

Frederick Cantrell

ALUMNI NOTES

(continued from page 13)

and so I will probably see some of my classmates then. Please give my regards to all my friends at school."

Dr. Robert Avery, '48, and Mrs. Avery, 448 N. Jefferson, Huntington, Indiana, are the proud parents of a son born September 18; Dr. Norman Becker, '46, 7 Strathcona Road, Dorchester, Massachusetts, and Mrs. Becker have a son, David Mark, born May 19, 1950; Dr. B. G. Temple, '47, informed us back in July that Mrs. Temple had presented him with an 8 pound 11 ounce boy, Michael Gene, and he thinks he may be a future dental student.

Dr. A. E. Gustavson (Lt.), April '44, gives his address as aboard the U.S.S. Midway (CUB-41), % Fleet Post Office, New York, N.Y. He had not been getting the Bulletin so we hope he gets this one.

And then in a letter from far away Pakistan, Dr. J. B. Sproull, '24, of 41 Lawrence Road, Lahore, asked for a list of his classmates and their addresses, and in almost the same mail came a similar request from Dr. P. B. Altman, '24, 211 Center Street, Hobart, Indiana, wanting the same list. We were happy to furnish the lists.

Dr. Miles Shephard, '47, Medical Building, Suite 15, Room 411, Longview, Washington, wanted a transcript but he did add the news that he is married and "also my practice is almost entirely pedodontia—thoroughly enjoy it."

Dr. Joseph F. Karpinski, '48, 2610 Tiger Tail Avenue, Miami 33, Florida, reports that "everything going very well." No doubt he is sure of that right now with the temperatures here in Indianapolis hovering around the zero mark.

The following men announce the opening of offices: Dr. J. L. Hutton, December '44, general practice of dentistry, 2160 Broadway, Boulder, Colorado; Dr. George R. White, Jr., '48, general practice of dentistry at 50 Main Street, Paterson, New Jersey; Dr. James R. Roche, '47, practice limited to dentistry for children, 548 Bankers Trust Building, Indianapolis, Indiana; Dr. Bert W. Gilbert, '48,

(continued on next page)

specialized practice of dentistry for children at 221 Wisconsin Avenue, Madison 3, Wisconsin.

Flash:—Just received a card dated December 5 from Dr. Darwin M. Reed: "This is to inform you of our recent change of address (2451 Robertson, San Diego 13, California). I should certainly appreciate reading the alumni quarterly. Mrs. Reed and I are enjoying our tour of duty in the Navy Dental Corps. Turnleys are with us here in San Diego but we are attached to different naval activities."

We do want you all to know how much we appreciate your good letters and we believe your classmates will enjoy reading about you and what you are doing as much as we have. Somehow the Class of August '43 didn't report as promptly as we had hoped and as you will note we haven't heard from several. However, our letter to them did not return so we are assuming that our address is correct. We have placed an asterisk beside the name of those from whom we did not receive a card informing us of their activities.

CLASS OF AUGUST, 1943

***Aitken, William Simpson**
2022 Wabash Avenue
Terre Haute, Indiana

Arthur, Thomas Taggart
(Deceased)

Berman, Robert Nathan
808 Old National Bank
Evansville, Indiana

Combs, William Mark
101 Western Reserve Building
Muncie, Indiana

Dunlop, Walter Wayne
128 West 10th Street
Michigan City, Indiana

(Dr. A. E. Felton, '50, now associated with me and is doing a wonderful job.

We are installing nitrous oxide for general anesthesia the first of the year.

Hope to limit our practice to exodontia, x-ray and oral surgery.)

Eads, Lee Cameron
502½ East Bowman
South Bend, Indiana
(Married, a daughter)

Ebbinghouse, Ernest Ross
55 West Market Street
Wabash, Indiana

Epstein, Stanley Eugene
Box 165
Spotswood, New Jersey

(I have returned to my original field, languages, and will soon receive a Ph.D. from the University of Pennsylvania).

Ferrell, David
108 East Chicago Street
Murfreesboro, Tennessee

Fitzpatrick, William Cecil
416 South Anderson Street
Elwood, Indiana

Garcia-Fortuno, Rafael
Munoz Rivera Street
Rio Piedras, Puerto Rico

(Served three years in the Army. Doing fine in private practice. Married with a son 1½ years old and a daughter 4 months old).

Harris, Paul Pierre
809 Jefferson Avenue
LaPorte, Indiana

Heltzel, Arthur Aaron
P.O. Box 469
Hopkinsville, Kentucky

(When you take that southern trip, why yo' all stop in and see us, y' hear).

Hollar, Horace Stiver
617 Anderson Bank Building
Anderson, Indiana

Kaufman, Joseph Robert
32 Elm Street
New Canaan, Connecticut

(Have two sons—Richard 5, Jonathan 1).

(continued on next page)

Keller, William Paul
905 Hume Mansur Building
Indianapolis, Indiana

Kirchoff, Wayne Franklin (Major)
546th Med. Clr. Co.
APO 757

% P.M., New York, N.Y.

***Kixmiller, Roy Leonard**
912 Old National Bank Building
Evansville, Indiana

Klotz, Melvin Matthew
3120 North Meridian Street
Indianapolis, Indiana

Lindborg, Daniel R.
302 National Bank Building
South Bend, Indiana

Matlock, James Fitch
5376 East Washington Street
Indianapolis, Indiana

McFall, Charles J.
121 West Kirkwood
Bloomington, Indiana

Mellion, Gilbert LeVine
217 Main Street, Box 246
Rocky Hill, Connecticut

***Mertz, James Richard**
76 Fairway Drive
Ashville, North Carolina

Micheli, William Donald
1005 Odd Fellow Building
Indianapolis, Indiana

***Nirenstein, Jack Bernard**
225 High Street
Hartford, Connecticut

Oba, John Takayuki
507 East 34th Street
Indianapolis, Indiana

Pope, Charles Foster
6657 Montgomery Road
Cincinnati 13, Ohio

(Two daughters; also just built a new house; say "Hi" to everyone).

Raibley, Walter Jacob
527-B Sycamore
Evansville, Indiana

Ritter, Melvin Aaron
3419 East 10th Street
Indianapolis, Indiana
(Howdy).

***Royer, R. Quentin**
1238 Fourth Avenue, S. W.
Rochester, Minnesota

Rutkin, Irvin Randolph
2738 Sutherland
Indianapolis, Indiana

***Scholl, Clark Harold**
2105 North Fountain Avenue
Springfield, Ohio

Sevier, Noble Holland
204 Sherman Building
Sullivan, Indiana

Shupert, Harlan B.
428 Burr Building
New Castle, Indiana

Spear, Jean William
421 Wayne Pharmacal Building
Fort Wayne, Indiana

Starkey, Paul Edward
24 East Central Avenue
Miamisburg, Ohio

***Trafidlo, Edward Joseph**
358 Commonwealth Avenue
Boston, Massachusetts

***Walker, Charles Edward**
4915 S. W. Baird
Portland, Oregon

***White, Robert Franklin**
Lynn, Indiana

Wicks, Clifford Austin
Bradenton Trailer Park, Box 1685
Bradenton, Florida

(Unable to practice because of multiple sclerosis).

Zimmerman, James Charles
105 North Main Street
Nappanee, Indiana

In the next issue we plan to have the names and addresses of the Class of December, 1942.

(continued on next page)

ADDRESSES OF THE CLASS OF 1950

Due to the many requests we have had for addresses of the 1950 Class, we are happy to give you the most up-to-date list we have been able to compile.

Alexander, Jack Zev
724 Garden Street
Bronx, New York

Amos, Everett R.
414 Tribune Building
Terre Haute, Indiana

Bailey, Paul Edwin
301-3 Carter Building
Hattiesburg, Mississippi

Barkes, Robert D.
206 Miami Club Drive
Mishawaka, Indiana

Baxla, Marvin E.
Florida State Hospital
Chattahoochee, Florida

Cantrell, Frederick A.
201½ East Main Street
Crawfordsville, Indiana

Carmody, John Henry, Jr.
Florida State Hospital
Chattahoochee, Florida

Chinn, Frank, Jr.
1810 Shady Lane
Louisville, Kentucky

Daily, Robert V., Sr.
6006 A.S.U.
Madigan General Hospital
Ft. Lewis, Washington

Denison, Jack D.
2845 Washington Boulevard
Indianapolis, Indiana

Dick, Harold R.
200 South Street
W. Lafayette, Indiana

Dirlam, James H.
Air Force
Brooks Air Force Base, Texas

Eitnier, Samuel H.
Danville, Indiana

Fall, James L.
3022½ S. Washington
Marion, Indiana

Farley, Francis E.
824 N. Lafayette Avenue
Albuquerque, N.M.

Fay, Seymour
104 Greenwood Place
Syracuse, New York

Felten, Arnold E.
128 W. 10th Street
101 Boyd E. Phelps Building
Michigan City, Indiana

Finkbiner, Charles H.
7 E. Poplar
Greencastle, Indiana

Flannagan, Charles
Tell City, Indiana

Garrard, Robert L.
712 Sycamore Street
Terre Haute, Indiana

Hall, Ray S.
1802 13th Street
Bedford, Indiana

Harris, Robert Lewis
Lehman Building, Room 702
Peoria, Illinois

Harrison, Earl L.
Kuttawa, Kentucky

Heimansohn, Henry Charles
University of Chicago
Walter G. Zoller Memorial Dental Clinic
940 E. 59th Street
Chicago, Illinois

Hodges, John Rex
U.S. Public Health
Marine Hospital
Chicago, Illinois

Hoppes, Dean E.
R R #4
Anderson, Indiana

Johnson, Harry Osmond
386 Bedford Road
Pleasantville, New York

Laybold, Ralph Ernest
1001 Barton Avenue
Terre Haute, Indiana

(continued on next page)

Light, Jack
 1571 39th Street
 Brooklyn, New York

Linnemeier, Robert W.
 300½ E. Kirkwood
 Bloomington, Indiana

Matthews, Jerome N.
 1177 N. E. 104th Street
 Miami Shores, Florida

Moseley, Kent C.
 Internship, Marine Hospital
 New Orleans, Louisiana

Orr, Richard L.
 710 Underwriters Bldg.
 Indianapolis, Indiana

Pirtle, Paul R.
 Mishawaka, Indiana

Risley, H. T.
 317 S. Main
 Oakland City, Indiana

Roll, Corliss J.
 U.S. Army
 Fort Campbell, Kentucky

Scholl, William, Jr.
 1161 S. E. Second St.
 Evansville, Indiana

Shroyer, J. Watt
 305 Ashland Avenue
 Muncie, Indiana

Simmonds, James F.
 1552 Ohio Avenue
 Anderson, Indiana

Smith, Franklin A.
 36 S. 8th Street
 Richmond, Indiana

Smith, Kenneth L.
 2110 Milburn Blvd.
 Mishawaka, Indiana

Spaulding, John B.
 212 South 2nd Street
 Decatur, Indiana

Stein, Howard Monroe
 266 Milburn Avenue
 Milburn, New Jersey

Stone, John J.
 2149 N. Arlington Avenue
 Indianapolis, Indiana

Taylor, Omar W.
 #6 Canal Dr., Laurel Park
 Hendersonville, North Carolina

Terpinas, Thomas M.
 Intern Quarters, Hospital
 Philadelphia, Pennsylvania

Vize, C. William
 Louisville General Hospital
 Louisville, Kentucky

Vogel, William V.
 Guggenheim Clinic
 New York, New York

Vorhies, Jack M.
 1121 W. Michigan
 Indianapolis, Indiana

Waymire, Joseph R.
 303 Main St.
 Elwood, Indiana

Wolin, Arthur J.
 Lincoln Hospital
 Bronx, New York

Youmans, Robert D., 1st Lt.
 U.S. Army, 417-A Butner Court
 Fort Bragg, N.C.

Zarin, Isadore
 10315 Adams Avenue
 Cleveland 8, Ohio

Professor Phillips Receives Appointment

Professor Ralph W. Phillips has been appointed as special consultant and a member of the dental study section of the United States Public Health Service. This appointment will be for a five-year period. The dental study section awards and supervises all research grants in dentistry from the National Institute of Health.



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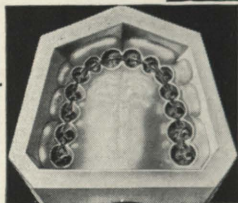
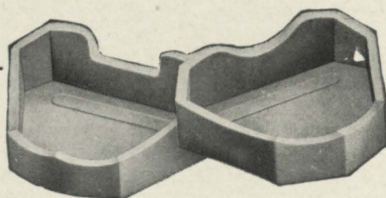
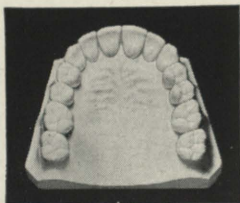
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KENNETH S. MANN, Manager

and

SOUTH BEND

202 Sherland Building
MAURICE D. LINDLEY, Manager

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