

*Alumni Bulletin*

INDIANA UNIVERSITY  
SCHOOL OF DENTISTRY

MARCH, 1962  
INDIANAPOLIS, INDIANA



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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.*

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# Oral Rehabilitation Facilities

*Donald M. Cunningham, Chairman  
Department of Oral Rehabilitation*

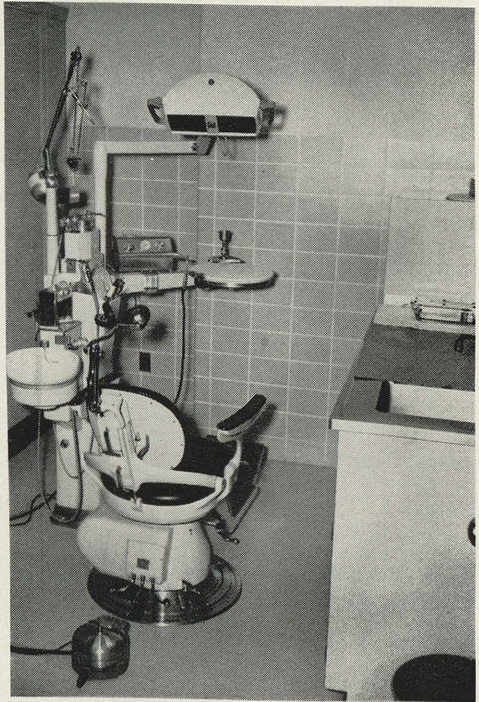
In the last issue of the Alumni Bulletin the aims of the department and the many services being rendered were reported in some detail. Therefore, this account will deal principally with a description of the physical facilities.

The area devoted to Oral Rehabilitation is located in the northwest section of the fourth floor in the new wing. There are four rooms in this area: an operator, office, and maxillofacial studio, office-laboratory and the technician's laboratory.

The operator (Figure 1) is equipped with a Weber 500m unit and motor chair, Mid-west air turbine, and built-in cabinet and bench. This room is used for examinations, restorative dentistry and other intra-oral procedures.

The next room does double and sometimes triple duty. It serves as an office for Dr. Varoujan Tchalian who joined the faculty last year to assist in establishing this program and to teach maxillofacial prosthodontics. Prior to his joining our faculty, Dr. Tchalian has just completed two years of resident training at the M. D. Anderson Tumor Hospital and the University of Texas Dental Branch, in Houston, Texas. This area also serves as a maxillofacial studio. It is equipped with a specially designed desk for the modeling and painting of extra-oral prostheses, (Figures 2 and 3). Mirrors are placed at each end of the desk in order that the operator, when modeling, may observe the prosthesis from all views. This makes possible an accurate comparison of form and position of the prosthesis to natural structures on the opposite side.

This room is also used for the making of facial impressions (Figure 4). Reversible hydrocolloid, reinforced with a plaster core, is the material utilized in repro-



**Figure 1.** Operator used for examinations, restorative dentistry and other intra-oral procedures.

ducing the facial defect and surrounding areas prior to the construction of the extra-oral prosthesis.

The largest room, at the end of the hall, is the technician's laboratory (Figures 5, 6, 7). It is here that Mr. Edwin Calkins does the many and varied technical procedures necessary in this type of work. Mr. Calkins recently returned from a military leave of absence and joined our effort.

Recently additional space has been acquired in Emerson Hall (the remodeled Medical School building) adjacent to the Department of Plastic Surgery. It is believed that the proximity to the hospitals and other medical facilities will prove beneficial to our program.



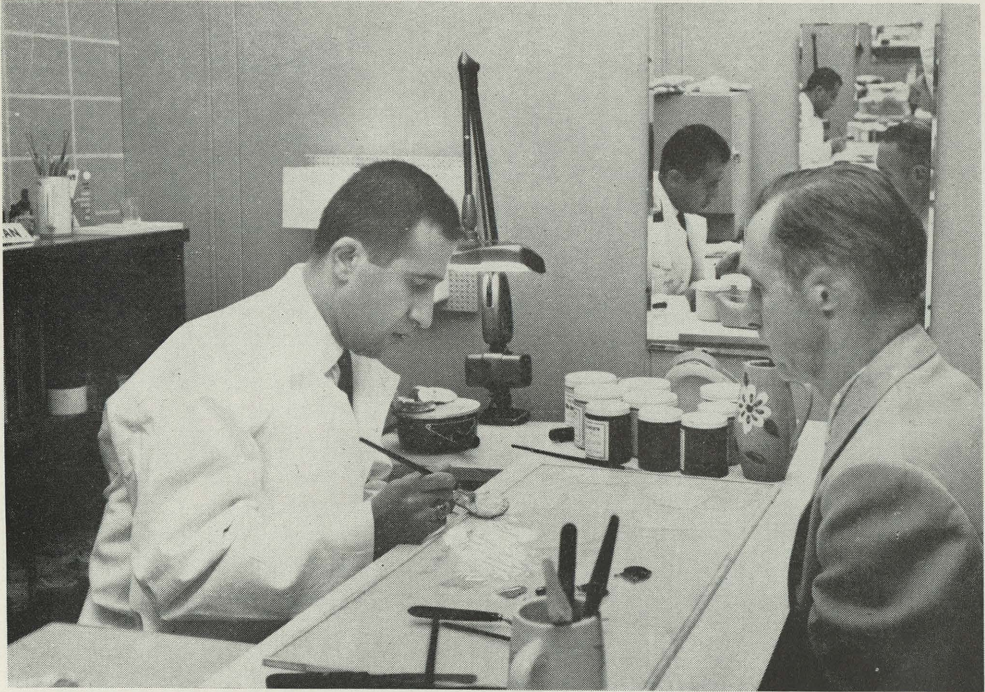


Figure 2. Dr. Tchalian painting vinyl resin into the mold during construction of an ear prosthesis.

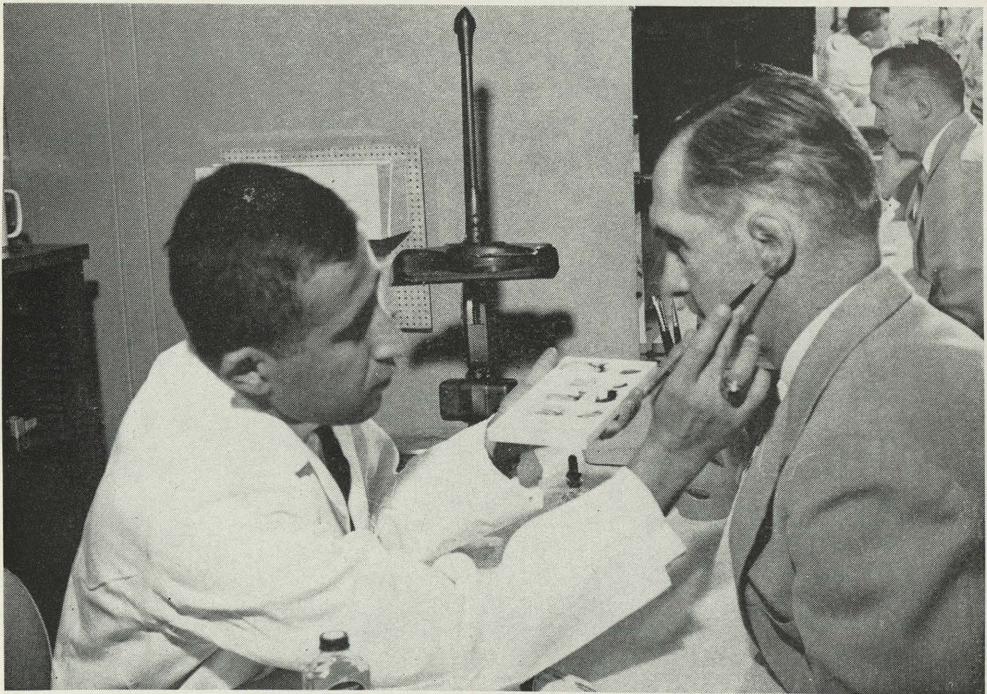


Figure 3. The completed ear prosthesis correctly positioned and receiving the "finishing touches."



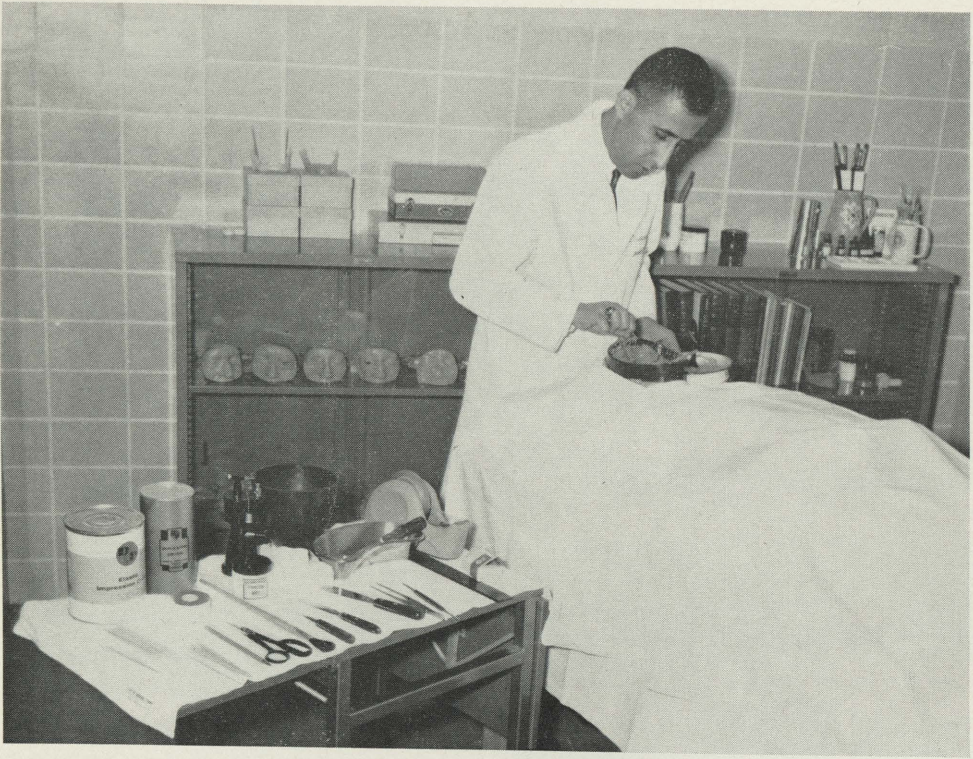


Figure 4. A facial impression being made using reversible hydrocolloid as the impression material.

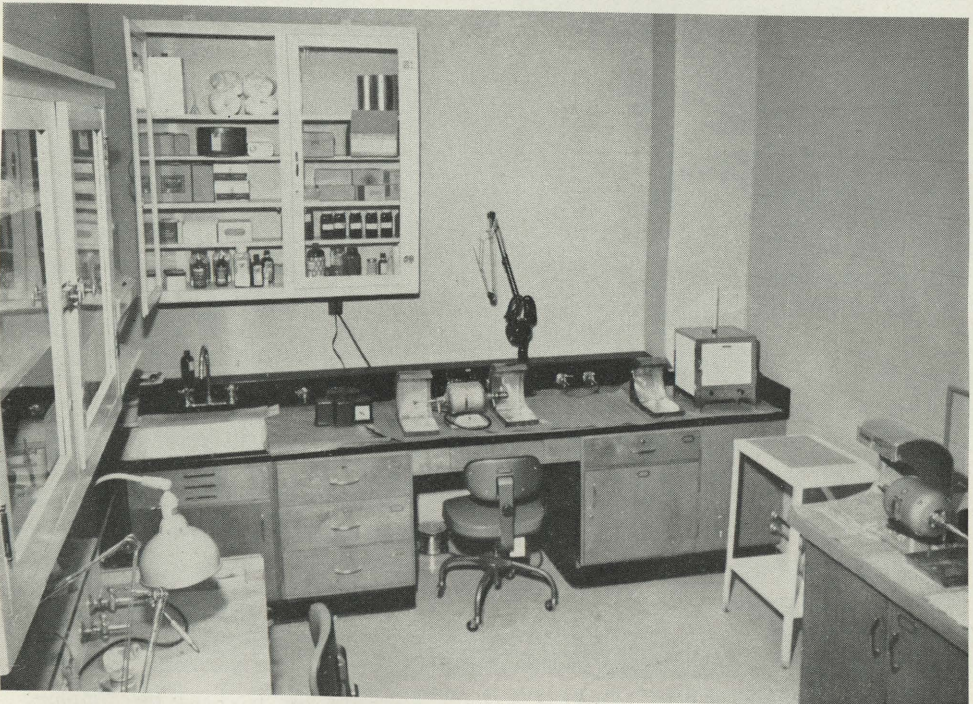


Figure 5. A portion of the technician's laboratory.



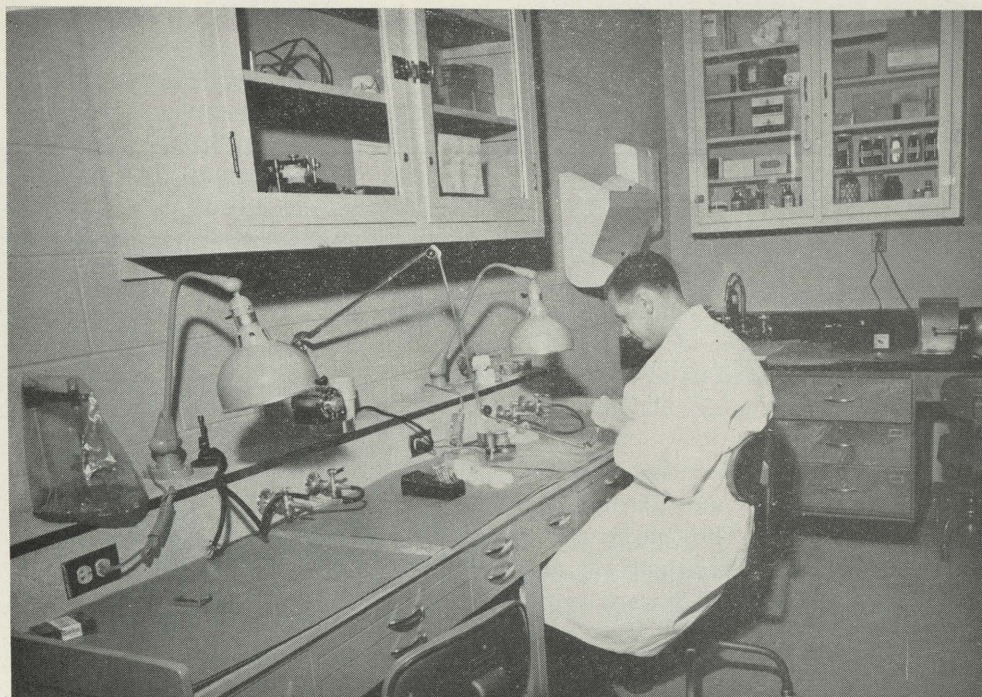


Figure 6. Mr. Edwin Calkins, technician, at work.

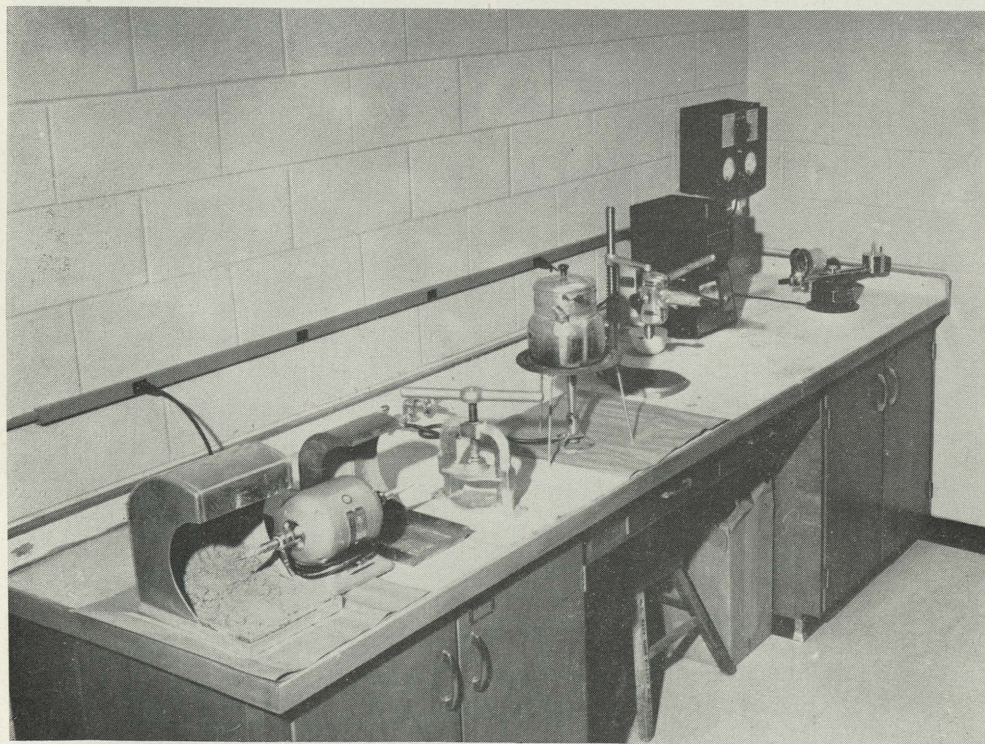


Figure 7. The casting, duplicating, packing and acrylic finishing area of the laboratory.



# Report from the President of the Alumni Association

*Jack D. Carr, President*

During the past year the Dental Alumni Association has continued to achieve success in various fields. Under the competent leadership of President Al Yoder, the Association received its second award honoring the outstanding Alumni group of the University.

Dr. Don Tyte of Bloomington served as State Director of the Varsity Club drive for our group. Through his efforts the Dental Alumni Association was able to continue its substantial support to the Varsity Club. We salute Dr. Tyte for a job well done.

As is our custom, contributions were made not only to the Varsity Club but also to the Student Loan Fund. At the October A.D.A. meeting in Philadelphia, the Dental Alumni members were hosts at a reception given in honor of Dr. Gerald Timmons, Present-elect of the A.D.A. It was a very pleasant party and we were especially proud to recognize Dr. Timmons at this time as he is the second Indiana dentist to serve as President of our national organization.

## LEGISLATION

The Constitution of the Dental Alumni Association has been changed so that the Board of Directors has a member from each Trustee District of the state. The new board members are:

Dr. Robert Davis, Mishawaka  
Dr. Malcolm Boone, Terre Haute  
Dr. Edward Young, LaPorte  
Dr. Thomas Boyd, Muncie  
Dr. Glen Brinker, Fort Wayne  
Dr. Charles Denton, Madison  
Dr. Robert Warpenburg, Owensville  
Dr. Paul Starkey, Indianapolis  
Dr. Donald Tyte, Bloomington



Drs. Boyd and Davis examine Alumni records with Robert Stebbens, Field Secretary, Alumni office.



Dr. Leavell receives golfing award from Dr. Leer.

President—Dr. Jack D. Carr, Indianapolis  
President-elect—Dr. Robert Peden, Seymour  
Vice-president—Dr. Emory Bryan, Fort Wayne  
Secretary-Treasurer—Dr. William Gilmore, Indianapolis



#### FALL CONFERENCE

We welcome fifty new members to our organization and look forward to seeing them at the increasingly popular Fall Conference this year. Last year the attendance again established a new record. It could have been the golf tournament, managed by Dr. Jerry Leer, which teed off the increase. Dr. Fred W. Leavell won the golfing honors and now has his name engraved on the trophy bucket.

Mr. Claude Rich, Indiana University Alumni Secretary, devoted much of his time to us and as usual his assistant, Frank Jones, "greased the wheels" to give us one of the smoothest-running meetings ever.

President Wells opened our Saturday morning meeting with an address in which he praised our organization and extended his warmest congratulations to Dean Hine for the high rating given to our Dental School by the Council on Dental Education of the American Dental Association.

Dr. John F. Johnston and his classmates of 1921 held a successful and enjoyable reunion. We feel that the Fall Conference, with its atmosphere of conviviality, presents an ideal opportunity to hold class reunions. In the past it has become increasingly difficult to "sandwich" these parties in between the important functions at the May meeting of the I.S.D.A. The secretaries at the Bloomington Alumni offices have kindly offered their services to assist members who wish to arrange for such reunions.

Tentative plans are underway to make this next Fall Conference interesting and enjoyable for every member and his guests.

The Indiana Unit of the American Society of Dentistry for Children and the Dental Hygienist had sessions in conjunction with our meeting while Dr. Doug White did his usual fine job in obtaining ads for our program.



Dr. Yoder receives the Alumni Achievement Award plaque from Mr. J. Howard Alltop as Dean Hine observes.



# Dean Hine reports that...

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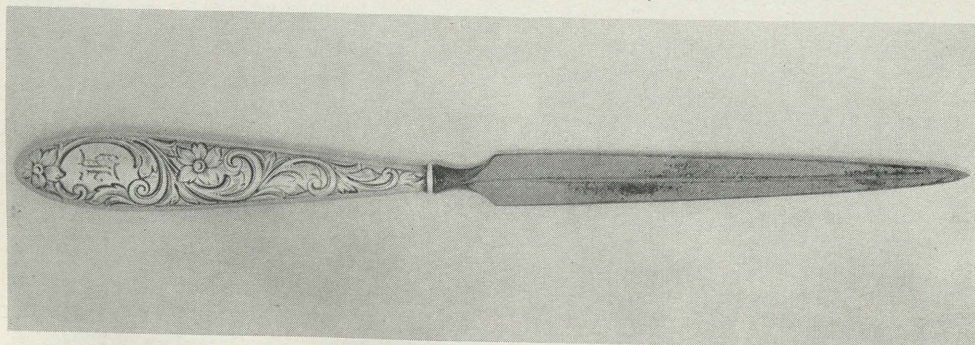
Dedication ceremonies for the addition to our dental school building are to be held in the addition on Wednesday, April 18. Details will be announced later; the day's festivities will include escorted tours of the building and short addresses by several prominent individuals interested in dental education.

The addition to our dental building has proved to be of immeasurable value to the teaching program of the dental school since it has made it possible to expand our program not only to include more undergraduate dental students, hygiene students and graduate students, but also more research. The chief defect in the building thus far has been that it is not large enough! Consequently, plans are being made for a new building which we believe can be justified "soon." This building would be designed to expand even further our entire program and relieve some of the crowded conditions in the Medical Science Building.

Dr. Howell, Assistant Dean of the Dental School, has just completed an analysis of population trends in Indiana in comparison to the number of dentists that we anticipate will be graduated and open practice here. Since the addition to the dental school has made it possible to

expand the size of our undergraduate program, his studies indicate that we should have approximately the same ratio of dentist to population until 1971. By that time, however, it will be necessary to increase the size of our dental classes so that in 1975 we can have appreciably more graduates, or Indiana's ratio of dentist to population will become less favorable. Since it is necessary to plan many years in advance before a class can be increased in size, we are already working on ways to increase the dental manpower in Indiana.

For the past several years we have been slowly collecting material for a dental museum in the hopes that we can eventually have an adequate teaching museum. We have some of this material on display now and it is our plan to add more museum material gradually. We are particularly interested in obtaining objects which can be used in our teaching program; skulls and examples of old equipment which would have teaching value are particularly needed. We also desire material of historical interest. For example, we were very pleased to receive recently from Dr. I. Lester Furnas the letter opener which was used originally  
*(Continued on page 50)*



Letter opener donated to school by Dr. I. Lester Furnas.



# Library

*Mrs. Mabel Walker, Librarian*

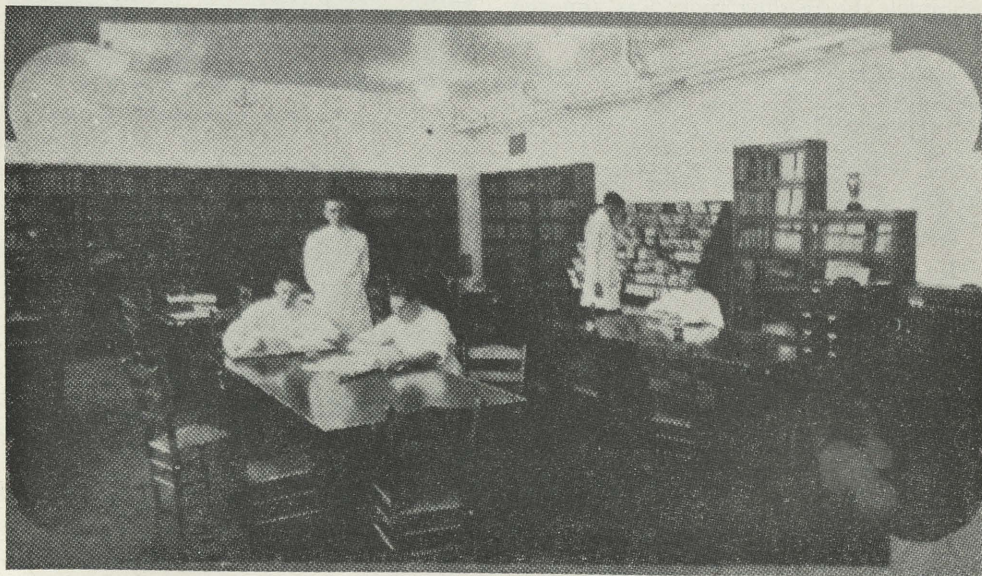
## IT'S PROGRESS

It was a great day when the library quarters were occupied in August 1933, twenty-eight years ago, on the second floor of the new School of Dentistry building at 1121 West Michigan Street on the Indiana University Medical Center Campus and the collection numbered 2100 books and bound journals and several hundred single issues of journals and pieces of vertical file material. The area consisted of a large reading room, a small stack room and an office. Space, light, cleanliness and newness were the only assets. There were no furnishings except several dozen sectional book cases, a large book truck, an office desk and venetian shades. The unbound journals remained in packing boxes until shelving was built and installed by campus carpenters who also built four tables for the reading room. Chairs for temporary use were taken from the patients' waiting room in the former building and eventually were replaced by chairs used in the

senior lecture room. With the writing arm removed, new plastic seat covers and paint to match the tables, they served well for ten years. An old section of periodical shelving was donated by the School of Medicine library and, when a base was supplied by using a dissection table from the anatomy department of the School of Dentistry, became a current journal rack which was used for several years.

The library in this rather crude setting was visited among others by three university presidents, the deans of several of the dental schools in the country, one medical school dean, local, state and out-of-state librarians. Among the meetings held there were the dental section of the national meeting of the American Association for the Advancement of Science and the newly organized Indiana Association for the History of Medicine.

Within eight years the library collection was more than doubled, the book and



The Library Reading Room in 1933.



bound journal collection numbered 4500 and the single issues of journals and ephemeral material numbered approximately 10,000. The shelf and wall space in both the reading room and stack room were fully utilized and storage space for duplicates was provided on the first floor. Also one new six foot eleven inch double range of double-faced shelving and one new section of current periodical shelving had been obtained. In the following two years six new oak reading tables with matching chairs and three double ranges of shelving to match the existing one were added to the reading room.

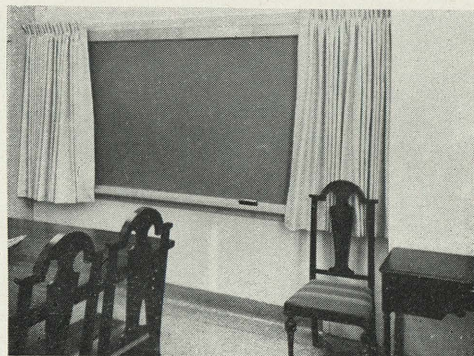
By 1949 the book and bound journal collection totaled 7500 and the library was subsequently moved to its present location in the west front wing of the first floor of the School of Dentistry building. At this time two new tiered current journal racks were acquired. This space consisted of a reading room similar in size to the previous one and an office on the first floor and a stack room on a lower level as large as the reading room. At the time, these quarters seemed extremely commodious and were described as being adequate for "years to come." Within six years, however, additional shelving was needed on both levels and a small room adjoining the reading room was annexed as a browsing room to house the material of a cultural nature. The book and bound periodical collection now numbered 9500 and the single issues of journals and ephemeral material numbered approximately 20,000.

Within another six years, in November 1961, with the above collections increased respectively to 14,000 and 37,000, the library spread into the lecture room which adjoins it on the west. This room is 27 feet by 24 feet in size and was divided by combined metal and glass partitions into a study room, 27 feet by 14 feet, a "conversation" room, 14 feet by 10 feet, and an office, 13 feet by 10 feet for the librarian.

Both dental and non-dental textbooks, all reference books and the non-dental semi-current journals were moved to the study room leaving dental journals, dental and medical indices and abstracts, all current journals, rare books and pamphlet files in the main reading room. The four ranges of double-faced shelving and two single standard sections of high shelving were moved to this room and six single sections of counter-height shelving in light oak were purchased. This provided several

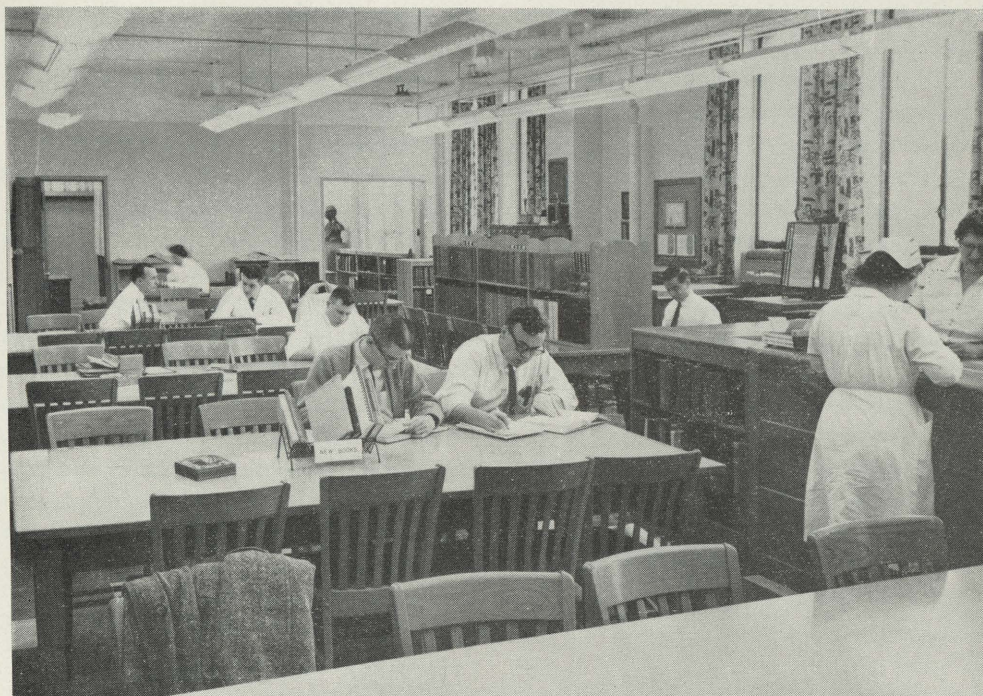


Views of the Library Study Room, 1962.



Views of the Library "Conversation" Room, 1962.





Views of the Library Main Reading Room, 1962.

additional shelves for textbook expansion in the study room and study space for a few additional students. The room also contains two small sofas upholstered in an aqua nylon fabric and two birchwood study desks finished in champagne maple which blends with the shelving.

The "conversation" room is set aside for those groups who may wish to engage in discussion which would disturb others if conducted in the study areas. The room is furnished with a table, six chairs and a wall blackboard. The table and chairs presently used are a beautiful old refinished walnut dining suite presented to the University by the Glossbrenner brothers, Alfred, George and Daniel in memory of their father, Alfred M. Glossbrenner. Mr. Daniel Glossbrenner is a member of the Board of Governors of the Riley Memorial Association. The chairs are upholstered in a striped material which blends with the sofa coverings in the adjoining study room.

The walls of these rooms and the office are a soft blue green and the windows are draped in a matching textured fabric. The blackboard in the "conversation" room is also draped and may be concealed during special occasions.

The space made available in the main reading room by the removal of the ranges holding the textbooks, provided for expansion of the reference and circulation work areas and permitted a bit more space between some of the reading tables. Space was gained also for four new metal letter-size vertical files in sand finish. The pamphlet file which is undergoing complete reorganization will be moved from the lower level to the first floor where it will be more accessible. The use of this file constantly increases.

The office vacated by the librarian is now occupied by the cataloger whose desk formerly was on the lower level. This makes a much more convenient arrangement as the files needed in the course of



the work will now be near the cataloging area.

A two-line key telephone system with buzzer connections for the reference and circulation desks, the cataloging room and the office has been installed in the library and is appreciated greatly by the staff.

The need for additional space in the library is now not quite so acute but that which has been acquired cannot suffice for more than a year. If as originally planned the student locker room adjoining the lower level stack area could have been annexed at this time, the needs probably would have been met for another six years. So we shall look forward to further expansion and subsequent additional means of service to enjoy as the present facilities are being enjoyed.

\* \* \* \* \*

*As in previous issues, listed below are abstracts of six M.S.D. theses written in the Graduate School, Indiana University, School of Dentistry, 1961.*

#### **A CLINICAL STUDY ON THE MARGINAL LEAKAGE OF RESTORATIVE MATERIALS AS DETERMINED BY $\text{Ca}^{45}$ .**

H. William Gilmore

An accepted laboratory procedure for producing autoradiographs has been utilized to study the leakage of clinical restorations. One hundred seventy-seven restorations were placed in humans and radioactive  $\text{Ca}^{45}$  in the form of  $\text{CaCl}_2$  was employed. The restorative materials tested were amalgam, silicate, resin, zinc phosphate cement and zinc oxide-eugenol. Teeth were extracted at intervals of one week, one month and three months.

The amalgam restorations revealed a uniform trace line type of leakage. As the restorations aged the sealing ability of the amalgams improved, permitting a small amount of isotope penetration. Some of the amalgams were placed in cavities that had been previously coated with a cavity varnish. The varnish improved the initial

adaptation of the amalgams. The autoradiographs for the extended time intervals were comparable to amalgam restorations placed without a varnish.

The silicate restorations demonstrated a large amount of isotope penetration which became progressively worse with time. Leakage occurred not only around the cavity walls but also into the body of the fillings. Zinc phosphate cement showed signs of leakage but was not as pronounced as silicate cement and improved with time.

The restorative resins provided relatively good seals and did not show signs of degradation over time periods employed in the test. The zinc oxide-eugenol specimens did not allow an excessive amount of isotope penetration at early time periods but became less efficient with aging.

The study was preliminary in nature but sufficient data were collected to indicate good correlation with the amount of leakage observed in in vitro tests with extracted teeth.

#### **A COMPARISON OF THE FORMOCRESOL PULPOTOMY TECHNIQUE WITH THE CALCIUM HYDROXIDE PULPOTOMY TECHNIQUE.** Walter A. Doyle

A study was undertaken at the Indiana University School of Dentistry pedodontic clinic. The purpose of the study was to compare the effects of the formocresol pulpotomy procedure with the calcium hydroxide pulpotomy procedure on mechanically exposed primary dental pulps. The effects of treatment were evaluated on histologic, radiographic and clinical basis.

Eighteen of the teeth which were treated with the calcium hydroxide pulpotomy technique and 17 of the teeth which were treated with the formocresol technique were later extracted for histologic study. The time interval between treatment and extraction varied from 4 days to 388 days; the mean interval was 100 days. A satis-



factory histologic condition of the pulp was observed in 50 per cent of the calcium hydroxide group and 71 per cent of the formocresol group.

On a radiographic basis, the calcium hydroxide pulpotomy technique was 64 per cent successful, whereas the formocresol pulpotomy technique was 93 per cent successful.

Using clinical criteria, based on observation periods of 9 to 19 months, 71 per cent of the pulpotomies which utilized calcium hydroxide were successful. The clinical evaluation of the formocresol pulpotomy technique was based on observation periods of 5 to 18 months after treatment; the formocresol group was 100 per cent successful.

Under the conditions of this study, the formocresol pulpotomy technique was superior to the calcium hydroxide pulpotomy technique, for at least the first 18 months following the treatment of normal primary dental pulps.

#### **RELATIONSHIP OF ENAMEL HYPOPLASIA AND TRAUMA IN REPAIRED CLEFT LIP AND PALATE. John R. Mink**

A clinical examination of the maxillary anterior primary and permanent teeth of 98 repaired unilateral complete (Type III) and bilateral complete (Type IV) cleft lip and palate patients was completed to determine the relationship of enamel hypoplasia and surgical trauma occurring during the repair of these congenital defects.

The results showed that the incidence of enamel hypoplasia of the maxillary anterior primary of Type III and Type IV repaired cleft was 66.6 per cent less than the enamel hypoplasia Type III and Type IV repaired cleft in the permanent maxillary anterior teeth (92.8%). This would indicate that because the permanent teeth are in earlier stages of development there is a greater amount of enamel hypoplasia.

The enamel hypoplasia was divided into mild, moderate and severe. In the Type III group there was a rather equal distribution of the enamel hypoplasia; however, in the Type IV group with erupted maxillary anterior permanent teeth, the severe classification of enamel hypoplasia was 24 of 29, or 86 per cent, indicating that the more severe the original cleft, subsequent to surgery, the more severe the resulting enamel hypoplasia of the developing permanent teeth.

#### **THE EFFECT OF NUTRITIONAL ANEMIA ON THE TENSILE STRENGTH OF HEALING SOFT TISSUE AND BONE WOUNDS IN THE RAT. Robert L. Ewbank**

In the soft tissue experiment, 78 male rats of the Wistar strain were divided into 2 groups; the control group received a stock laboratory diet while the experimental group received only milk as the daily feeding. The development of anemia was measured by hemoglobin and red blood cell counts. At the end of 5 weeks, the animals were subjected to a surgical operation wherein a uniform skin incision was made in the abdominal area. Following a 5-day healing period, the surviving animals were sacrificed and the wounds evaluated on a tensile strength testing apparatus.

In the bone experiment, 74 male rats of the Wistar strain were divided into 2 groups treated as in the soft tissue experiment. The anemia was determined by hemoglobin and red blood cell counts. At the end of 5 weeks, the animals were subjected to a surgical operation wherein a uniform bur hole was placed in the tibia. Following a 7-day healing period, the surviving animals were sacrificed, the tibias dissected free of all soft tissue and radiographed, and the wounds evaluated on a tensile strength testing apparatus.

Histological examinations made of representative animals in both soft tissue and



bone studies did not reveal any significant differences between control and experimental groups. Neither could any difference be detected in the degree of healing between the control and experimental groups by radiographic means.

**A STUDY OF THE EFFECTS OF CERTAIN VARIABLES ON THE COMPARATIVE STRENGTHS OF SOLDERED AND CAST BRIDGE JOINTS. Roland W. Dykema**

A total number of 116 specimens which simulated dental bridges were prepared and tested in order to study the relative strengths of cast and soldered bridge joints. The effects of span length and age-hardening heat treatment on these two types of joints were also investigated. Most of the specimens, cast in a typical dental gold alloy, were made by means of an electric casting machine. Additional castings were made by means of a gas-air torch. The specimens were tested in a specially designed jig placed in a Tinius Olsen testing machine. The total load, in pounds, required to produce yielding was recorded.

This study showed an inverse relationship between span length and load-bearing capacity. While there was evidence that the cast joint was somewhat stronger than the soldered joint, the difference is not believed to be clinically significant. However, the soldered joint was found to resist deformation to a much greater degree than did the cast joint. Joints cast by means of an electric casting machine bore greater loads than those cast with a gas-air torch. Age-hardening heat treatment increased the load-bearing capacities of soldered joints, while the load-bearing ability of cast joints was markedly decreased by the same heat treatment. No completely satisfactory explanation is offered for this incongruous effect of heat treatment upon the two types of joints studied.

**ENAMEL HYPOPLASIA IN CEREBRAL PALSIED CHILDREN. Stanley C. Herman**

A study was undertaken at the Cerebral Palsy Dental Clinic of Indiana University to study the relationships between cerebral palsy and enamel hypoplasia.

A group of 120 cerebral palsied children between the ages of  $2\frac{1}{2}$  and  $10\frac{1}{2}$  years were examined clinically to determine if enamel hypoplasia was present. This information was recorded with a summary of the pertinent medical history. These findings were compared with each other and with a control group of 117 normal children between the same ages.

Enamel hypoplasia was observed in 36 per cent of the cerebral palsied group as compared with 6 per cent of the normal group.

In 69.8 per cent of cases studied in which there was both cerebral palsy and enamel hypoplasia, there was a positive correlation based on the time of the possible etiologic factors which could have caused brain damage and the position of the enamel hypoplasia based on the developmental time of that particular area of enamel.

No specific etiologic agents could be found which would consistently produce enamel hypoplasia in the children studied.

It should be noted that in 64 per cent of the cases of cerebral palsy studied, there was no enamel hypoplasia visible on clinical examination, suggesting that cerebral palsy is produced more readily than enamel hypoplasia. Because of the high correlation between cerebral palsy and enamel hypoplasia in cases where both were present and because of the apparent difficulty in the production of enamel hypoplasia as mentioned above, enamel hypoplasia may help the clinician and the researcher to determine when the brain injury occurred in cases where the etiology is subtle or apparently unknown.



# Dental Hygiene

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*A. Rebekah Fisk, Director*

Between Christmas and the announcement relative to the National Board, we have heard from quite a few of our alumnae and really have news this year—

## 1952

Mary Louise Dreher should be among the first to take the National Board because as soon as she passes one and starts working, her husband is moved again. She thinks that they will leave Omaha, Nebraska for Minneapolis, Minnesota this year.

Nina Phillips came to the May Meeting but didn't get around because of a blister on her heel. Better luck this year Nina.

Gloria (Horn) Huxoll is very active in the Fort Wayne group of dental hygienists.

Jane (Hiatt) Johnson added the name of a new baby on her Christmas card, Beth, 5½ months. She also has a son, David.

This class should get together for a reunion. It has been ten years you know.

## 1953

We were very pleased to have Nannette (Noirot) Hatton and her husband stop in last spring. Since then, Nannette has taken and passed the Florida Board but is currently working with the State Board of Health on a project in the schools of Rising Sun. Her address is 121 North Walnut Street.

Another surprise was a letter from Joan (Malacina) Hayden and a picture of the entire family. (All seven) The Haydens have taken up residence at 170 Pickhurst Lane, Hayes, Bromley, Kent, England. Mr. Hayden was transferred by the Bee Chemical Company to head the European Branch. Sounds like fun, doesn't it?

We know nothing of the whys or wherefores, but a new address for Bea (Davis) Pierson is 400 Sheffield Road, Haddonfield, New Jersey.

Joan (Nichols) Hearn and family including Karen Leigh were home for Christmas.

The card from Elizabeth (Gilchrist) Keck was a picture of her three sons, Dave, Bobby and Jackie.

We see Ruth (Cleveland) Wirtz and son Woody and his sister occasionally when Woody is in for a check-up.

Marilou (Shidler) Halle and family are still in Crawfordsville. Marilou offered to help with our program—we are thinking of making her night chaperone.

## 1954

From out of the past came a three page letter from Ted and Lenore Clark back in the States from a tour of duty with the Army on Okinawa and trips to Japan, Hong Kong, Philippines and Taiwan. They enjoyed the trips and hope to get to Europe eventually. It was good to hear from them—their address is 2930 Burnside Drive, San Antonio 9, Texas.

Another surprise from a member of this class was a picture of Marcella (Mitchell) Keefe and family. Marcella wants anyone coming out to the fair in Washington to be sure to call her.

Not only did we receive a Christmas letter from Gerry Bailey, we had a visit too. Gerry and family had some time between planes on a recent visit to Logansport and came in to see us. They had enjoyed their visit but were anxious to get back to a warmer climate. Gerry is working three days a week and is active in the Texas Dental Hygienists Association, Bob is completing his law courses and the girls are in school.



Carol (Ottinger) Rosebrock wrote that with two boys and a girl they were glad to get into their new home at 2576 St. Peter Street, Indianapolis.

The Christmas', (Marlene Bleeke) now have two daughters, Cathy and Shelley.

## 1955

You may have noticed that Carla Porter's name was on the letter relative to the National Board—my mistake—it should have been Carla Totten. I just can't keep up with these name changes. Carla has been on faculty since September as a clinical supervisor.

It was good to see Mary Lou (Smith) Gunsaulus at the May Meeting.

Marianlee (Comer) Hawk is still living in Michigan and working part time. We didn't get the information from her, she just happened to substitute for a friend of mine.

Doris Klitzke is active in P.T.A., church and Law Wives groups in Texas. Her dental activity is working in a Spanish Clinic as often as possible.

Carolyn (Tucker) Reighley hopes to work part time in Denver when they return from Germany in July. She is responsible for the following news—Marcia (Mast) has her fifth child, a boy, born in August.

Marjorie (Lahr) Scales is now living in Orange Park, Florida.

Maryann (Huneck) Batcho had twin girls in August which brings her family to four girls.

It was Gerry (Charnley) McLaughlin who called to give me the sad news about Jane (Rutledge) Jacks. Gerry is a busy mother.

The new address for Mary Cora (Walker) Jackson is 23631 Prospect Valley Drive, Diamond Bar, California. We filled out forms for her California Board recently.

## 1956

We see Janet (Clinton) Fryar occasionally when she comes to Indianapolis with Dr. Fryar.

From the Hodges', Judy (Patterson) and Larry, we received an announcement of a brother Brett for Larry and a note at Christmas. They will return from Hawaii in June.

Betty Jo Knafel was here for state meeting.

Virginia Gibson wrote that Scot started school this year—a fast six years she thinks.

Marilyn (Kirchenbauer) Duling is still practicing in Denver.

Priscilla Robards is President of the Indiana State Dental Hygienists Association.

## 1957

Jaclyn (Hite) Gray is now a part-time clinical supervisor at school. She has been helping Dr. Gray set up his office, but we wangled her back into her own field.

Mary Ann (Healy) Hogan is working part time for Dr. Philip Bly.

Sylvia (Baldwin) Mills entertained the local group at the Maplehurst Farm in June. She is active in the local and state organizations.

We received a nice newsy letter from Corine (Nowinski) Patton. The wife of Judge George Thomas Patton you know. If I ever get in trouble, I hope it is in South Bend where I know a judge. Katy and Connie Patton now have a baby brother, George III.

Peggy (Fixel) Schwartz is working at the Veterans Hospital in Marion and likes it very much.

The Remley's Christmas card was a picture of Kent holding Mary Jane, (these two look like Basil I think), then there are Anne and Reed who look like their mother.

Carol (Stump) Knox and her two daughters, Julie and Pamela, are living



at 1815 Fescue Street, Kalamazoo, Michigan.

Belva Whaley is now Mrs. James Birch and is living at 2310 North Goodlet, Indianapolis.

This class should also have a reunion this year—five years out.

## 1958

From Martha Crawford we received a card signed Tom, Martha and Jay. The Crawfords live at 2021 Taft Road North, Syracuse, New York where it is possible to have nearly a yard of snow over one weekend. Martha had attended the wedding of Betty Hoehn to Kenneth Plantz at Notre Dame. Sue (Kraybill) Kaiser and Judith (Haag) Carricoff were also there. The Plantz live at 3351 Meadows Court, Indianapolis.

Donna (Doss) Hales is now living at East 205, University Apartments, Bloomington, and is associated in practice with Dr. Robert Linnemeier. Her husband is a graduate student in foreign languages.

Dr. and Mrs. (Marjorie) Lewis Urschel are living in Marion where Dr. Urschel is associated with the Davis Clinic. Their son Lewis Steven was born in March. I wonder what they did with those cats.

Carol (Gutherie) Fitch lives at 1900 North 15th Street, Arlington, Virginia and has a daughter, Kimberley Ann who was born in March.

The Speddings, Ann (Buche) and Bob have a second son, John born in November.

## 1959

Kay Camp decided to return to Indiana and is now associated in practice with Dr. James Michener in Kokomo. She lives at 5509 Menomonee Drive.

Deanne Conrad is now associated with Dr. James Pierce in Anderson.

Nancy (Porter) Blackburn has a son Joey and lives at 1130 North Gilbert Street, Danville, Illinois.

Carol Gutwein has left Indiana and is in training to become a foreign missionary in Milwaukee. She lives at 168 North 20th Street and is preparing to take the Wisconsin Board.

Myrtle Starr is now associated with the State Board of Health and lives at 3761 North Meridian Street.

Dr. and Mrs. (Linda Swihart) George von Mohr have a son, Eric George. Their new address is 411 South Seventh Street, Blythe, California.

Carol Arnold was married to Robin Roberts and is living at 696 Middle Drive, Woodruff Place. She is associated in practice with Dr. James Roche in Indianapolis.

Mrs. (Jean Bushong) William Leyda is associated with the State Board of Health.

Norene (Martin) O'Malley and family are living in Bloomington.

Jolene Richette was married to David A. Dunbar and lives at 2800 Garfield Street, Terre Haute. If you are interested in working in Terre Haute, write to Jolene.

The Christmas card from Dr. and Mrs. (Carol Temme) Richard Leyda was a picture of them and Debbie dressed in kimonas. Debbie looks a little dubious.

## 1960

Most of the news from this class comes in the form of wedding announcements.

Karen Nickas to William Dale Street, January, 1961.

Roberta Jane Polson to Dr. Gene E. Maddock in June, and is living at 22965 Gary Lane, St. Clair Shores, Michigan.

Jane Hazledine to Max Blue. The Blue's including son, Edward Gene will leave soon for Lexington, Kentucky.

Marilyn Lorenz to Lawrence Peterson in June and lives at 103½ E. Mulberry Street, Salem, Indiana.

Joann Kritikos was married to Al Kirchoff and is associated in practice with

*(Continued on page 51)*



# Alumni Notes

Mrs. Cleona Harvey, Recorder

Greetings and Happy New Year, from the Recorder's Desk! Once again the time has slipped quickly by, another year well started, Alumni Bulletin copy is again due at the printers, and, oh, my aching head! Ye Editor Phillips is "hounding" me for my copy. Briefly, I want to thank all for the wonderful Greetings and Good Wishes that I received this year. Believe me, I appreciate your every thought; you people are close to my heart!

We particularly appreciate your kindness in sending us news that we may relay to your classmates via this column. If you will read ALL of this column, you will notice that many alumni DO read of their classmates herein, and DO like to see more and more class news. However, it's up to you—and YOU—AND YOU—to send in the material for us to set up in type! Let's make this a bigger and better column just chock-full of news about ALL the classes. Come on, now, you know you've been intending to write us that letter for a long time. NOW IS THE TIME TO DO IT. We are interested in hearing all about you, what you are doing, your hobbies, etc. Wouldn't you like to share your news with us?

And now it is our pleasure to bring you news of the classes. As is our custom, we are printing the latest addresses we have received for the 50-year anniversary class. So here is the list of the 1912 Class:

## Class of 1912

James O. Blythe  
Deceased

R. Russell Bradshaw  
Deceased

Clyde C. Briggs  
5018 North Illinois Street  
Indianapolis, Indiana

Elmer M. Bull  
Deceased

Clarence H. Burnett  
Deceased

Lloyd Carter  
Deceased

S. Edith Davis  
410 North Meridian Street, Apt. 410  
Indianapolis, Indiana

Thomas P. Donahue  
108 East Sycamore Street  
Liberty, Indiana  
*"Greetings to the girl and boys of the 1912 class. My wife passed away in November after years of failing health."*

Mont Clair Faust  
715 North Fifth Street  
Covington, Indiana  
*"My favorite instructor in dental school was George Edwin Hunt."*

Lee E. Foster  
Badt Building  
Portland, Indiana  
*"My favorite instructor in dental school was George Edwin Hunt. Perhaps I am not quite as fast but other than evenings I observe the same office hours and many days as hard as several years ago, convinced that I am better satisfied to do so as long as I can. My best regards to all."*

Warren Frazier  
Deceased

Walter W. Gochenour  
Deceased

Vernon C. Haskett  
Deceased

Herman O. Hawley  
Address unknown



- A. Lee Hickman  
5129 South Hohman Avenue  
Hammond, Indiana  
*"My favorite instructor in dental school was Howard R. Raper. Dr. Raper's teachings paid off in many ways. Saving teeth and satisfaction of knowing you have given it all."*
- Oswin K. Hilty  
Deceased
- Henry E. Hinshaw  
Centerville, Indiana  
*"My favorite instructor in dental school was Dr. I. L. Furnas. I retired July 1, 1960."*
- Charles O. Huston  
Address unknown
- Paul H. Hutchison  
210 Colonial Building  
Richmond, Indiana  
*"I still keep up my license. Have a furnished basement and all my equipment there except a chair, do dental work for my family. Due to such infrequent operating I find myself awkward as a freshman."*
- Elias B. Johnson  
Deceased
- Jesse Jones  
Box 36  
Colony, Oklahoma  
*"A note from Dr. Jones' nephew tells us, 'Dr. Jesse Jones has been bedfast since last spring; it has been some time since he gave up his practice.'"*
- E. I. Kellams  
Deceased
- Fred A. Kennedy  
Deceased
- Leonard I. Kercheval  
Deceased
- Oliver V. Kingery  
305 Peoples Home Life Bldg.  
Frankfort, Indiana  
*Dr. Kingery reports that he is still in private general practice, and he last visited the dental school in 1945.*
- J. C. Lankford  
Deceased  
*A note from Mrs. Lankford reports, "Dr. Lankford died March 20, 1961 after a long illness. Please inform his classmates."*
- Ralph W. Lytle  
Deceased
- William I. McCullough  
Deceased
- \*Frank A. Mosby  
36 West Washington Street  
Indianapolis, Indiana
- Wilbur E. Neuenschwander  
Deceased
- \*Hale Pearsey  
227 North Morgan Street  
Rushville, Indiana
- Glenn J. Pell  
Deceased
- \*William C. Richardson  
Francesville, Indiana
- Bertram Riffle  
2719 East Washington Street  
Indianapolis, Indiana  
*"I have enjoyed the years of practice; each day a new thrill and experience."*
- Chowning F. Rivers  
Bargersville, Indiana  
*"Retired, living in Bargersville. Last visited the dental school in October 1961."*
- Grover A. Rivers  
Deceased
- \*Raleigh C. Schuyler  
3127 Columbus Avenue  
Anderson, Indiana

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\* Indicates that we had no reply to the letter sent out. If anyone has any information about, or an address for, these graduates, we would be pleased to receive it.



\*George J. Smith  
1455 Monroe  
Denver, Colorado

Orval E. Stone  
312 Bankers Trust Building  
Indianapolis, Indiana

*"At 71 years I have no thought of retiring. However, I work short hours four days a week. My hobby is flowers and gardening. My home is at 5902 Allisonville Road."*

Waldo E. Thornburg  
Deceased

John E. Walker  
Deceased

James C. Wills  
Deceased

Fred T. Wilson  
Deceased

John L. Wilson  
Deceased

Orva E. Yater  
Monon, Indiana

*"I am partially retired. My favorite instructor in dental school was Frank A. Morrison. To those that are left of my classmates, may you live to be a hundred and be happy."*

#### Class of 1902

We received such a nice letter from Dr. O. L. Bridge, 1240 Cherry Street, Huntington, Indiana, that we wish to quote it in its entirety:

*"I surely appreciate getting the Alumni Bulletin. It brings back old memories. I practiced dentistry only four years after leaving college. Sold out during 1906 to a graduate of that year. I then entered the commercial field and stayed with it until 1955 when retirement got me. Well do I remember Dr. Chapman and Dr. Jackson (demonstrators in the College infirmary). Both fine fellows. Dr. Chapman has passed*

*on, but as to Dr. Jackson I don't know about him.*

*"I haven't seen one of my classmates since the night of graduation, April 26, 1902 at English Opera House. If any members of the class of 1902 should see this item, please write to me."*

#### Class of 1905

Dr. Willis G. Rice, 23 West Church Street, Orlando, Florida, wrote a "newsy" letter which we also wish to quote:

*"I received the Alumni Bulletin and enjoyed it very much. It seemed like reading of juveniles—"Class of 1931, etc." I was a member of the Class of 1905. I may be the only one left of that Class. I had an office in the Merchants Bank Building until 1923. I took the Florida Board in 1918—it was stiff, and about half of the 100 taking the exam flunked. The basic training we had at old I. U. under Drs. Hunt, Byram, Jackson, et al, was surely sound. Since then I have worked in three other universities—old I. U. ranked at the top.*

*"Have enjoyed a nice practice here. Many Hoosiers as well as other 'snow-birds' are here. Judge Baker from Noblesville, Walter Hayes, president of the American Fire & Casualty Co. from Loogootee, etc.—all fine Hoosier folk.*

*"I am planning on retiring about April. I will be 87 on the 18th.*

*"Hope to visit the school once more. Regards to all."*

#### Class of 1913

We received Season's Greetings from Dr. Raul N. Montero, 3rd A. #8810 Avenue, Miramar, Havana, Cuba.

#### Class of 1917

Dr. and Mrs. Carl Frech, Gary National Bank Building, Gary, Indiana, sent Season's Greetings.



### Class of 1928

Dr. Leon and Evelyn Berger, 723 Main Street, Beech Grove, Indiana, sent Greetings.

### Class of 1929

Dr. and Mrs. James Sakurai, 2715 Tantalus Drive, Honolulu 13, Hawaii, also sent their Greetings for the Christmas Season.

### Class of 1932

The Nakamoris, 908 King Street, Honolulu, Hawaii, sent Greetings of 'Mele Kalikimaka' (Merry Christmas) and 'Hauoli Makahiki Hou' (Happy New Year).

### Class of 1935

Received Season's Greetings from Dr. and Mrs. M. J. Bean and Family, 224 Elm Avenue, Hackensack, New Jersey, with a nice note enclosed:

*"I enjoy reading your Alumni Notes very much and thought you might like to know that my daughter Sandra is a junior at I. U. in Bloomington and I expect to have my son become a freshman in 1962.*

*"Best wishes, have a wonderful holiday, and remember me to everyone."*

### Class of 1946

Dr. Norman Becker, 34 Shirley Avenue, Revere, Massachusetts, sends his "annual report" as follows:

*"In this yearly report of mine, I'll try to bring us up to date.*

*"This past year has been an eventful one. The reason for the scratchout of my address is that my office at 580 Beach Street was completely destroyed by fire, and my associate and I have spent the interim in designing and building a new office . . . . We have been working in the new office for about*

*three weeks now, and are completely comfortable and happy.*

*"I am still quite active in Massachusetts dentistry, being re-elected to the House of Delegates for another five-year term. I am also active in the Educational Council and the committee planning Massachusetts Dental Society's Centennial.*

*"In addition, I'm retaining my loyalty to I. U.—still plugging it. One of my boys from Revere—a senior at Tufts Dental—has already applied for a graduate program with you, and another friend of mine is inquiring about another course.*

*"My regards to all, especially to Charles Howell, with my congratulations."*

### Class of 1949

Season's Greetings came from Dr. and Mrs. Ernst Rosenthal, 1266 Oliver Avenue, Indianapolis, Indiana.

### Class of 1950

Dr. I. Zarin, 104 North Main Street, Orrville, Ohio, writes as follows:

*"My activities: Married former Esther Reed, one of Indiana University Medical Center's dietitians—have two wonderful children, Amy 5 and David, 2½. I have a good practice here in Orrville, about 50 miles south of Cleveland; do mostly general dentistry, however, I am contemplating a change and as a matter of fact am in the middle of it right now. I really don't know if or how it will work out but would rather wait and see than say too much at this time.*

*"If Dean Hine reads this, he'll quickly perceive that my handwriting hasn't improved much in the last 10 years—he always teased me about it, and guess he was right! It's rather hopeless." (Note—Dr. Hine did read this and commented that either Dr. Zarin's handwriting or his ability to read it had*



improved over the years because he had no difficulty whatever in reading the letter!)

#### Class of 1952

We are pleased to inform you that we received a notice of the wedding of Dr. Rafael Aponte, Jr., Box 1705, Ponce, Puerto Rico, to Miss Maria Luisa Betancourt last July. To them we send our congratulations and best wishes.

#### Class of 1953

Received a Christmas Greeting from Dr. and Mrs. William Crawford, 4233 East 38th Street, Indianapolis, with the note "We have graduated to Arlington High School Music now but 4th grade Judy will be coming along."

Dr. Henry Plaschkes, 2334 North Delaware Street, Indianapolis, also sent Season's Greetings.

#### Class of 1954

Dr. and Mrs. Robert Johns and family sent greetings from 606 Eley Road, Elgin Air Force Base, Florida.

#### Class of 1955

Dr. and Mrs. David Amos, 1315 West 10th Street, Indianapolis sent Holiday Greetings.

Drs. Ursula and Werner Bleifuss, 18786 San Quentin Avenue, Lathrup Village, Michigan, sent Greetings and Best Wishes.

Dr. and Mrs. Stuart Everard, 1405 Inglewood Court, Falls Church, Virginia, sent Season's Greetings, with this note:

*"Another year has passed . . . Last April I took a week's course at the Armed Forces Institute of Pathology and saw Dr. Shafer but was unable to talk to him. I am now a member of the American Academy of General Practice and on the Surgical Staff of the new Fairfax Hospital."*

#### Class of 1956

We have received a notice of change of address for Dr. Marvin Bernstein to 200 East Route 59, Nanuet, New York.

And Season's Greetings (without the usual mimeographed letter which we really missed, Juanita!) from Dr. and Mrs. Louis D'Angelo, P. O. Box 12, Williamsville 21, New York.

Dr. Johnston received such a "newsy" letter from Dr. Young Ok Lee, College of Dentistry, Seoul University, 111 So-Kong Dong, Seoul, Korea, that we asked for permission to extract bits of news from it for you. Here 'tis:

*"Since the last time I had written to you, many things have changed here and I have been appointed as the superintendent of the infirmary of our school, and having things to look after in connection with the new job kept me terribly busy all this time, but I enjoy doing it."*

*"Another thing is that I have completed and submitted my dissertation for a doctorate degree for Seoul University which I have been working on hard, I don't know how soon Seoul University will confer the degree but I expect it rather soon."*

*"My twin sons will be finished with the six year grade school course soon and having their examination which is required for admission to junior high school in Korea. The rate of competition for admission to outstanding junior high school such as this one is very high and just about every one in the family has been concerned about the twins. My daughter, Eun-Hee is having a final examination for her first year of senior high school. . . ."*

*"I have seen your new edition of textbook in the Korean bookstore; it is a good one and I think I can get it soon."*

*"I forgot to mention one thing which might be of interest to you; the story is: My wife has been wearing a tem-*



porary partial denture for the last couple of years but finally, last week, I made the real good one for her. She is very happy with it. Can you imagine the wife of a professor of partial denture wearing a temporary partial for last two years? This reminds me of an old Korean saying, "If you own a shoe store, you will never wear a new shoe, it's always a second hand.

"Please write whenever you have time and give our best regards to the faculty."

Dr. Boyd, Dr. Johnston and Dr. Hine received such an interesting letter from Dr. and Mrs. W. W. Rogers, Worsley House Hotel, Clifton Gardens, London, England that we are going to let you, too, read most of it:

"Hello, everyone. Since I haven't written much recently, thought you might circulate this letter for me, Drex, and then let Mrs. Harvey have it for the Alumni Bulletin.

"I was married on August 19 to Miss Valerie Vokac of Cody, Wyoming, in Tucson. Met her in Tucson at an opening of the Desert Inn. We went to California for the first week of our honeymoon, then returned to Tucson where we waited for some aircraft to be made ready for a flight to England. I was ferrying a Boeing B 17 along with two other ships to England for a movie, helping a friend of mine who had the contract to supply and ferry them over. Valerie had a ball lying in the nose all the way across the U.S.A., watching the country unfold in front of her. It's quite a way to fly because you feel as if you are flying in a goldfish bowl. At New York we picked up publicity people who were to cover the story and make the trip across to England with us, then to Boston and Valerie left the flight as we could not take her with us since she was not a crew member. From Boston we went to St. Johns, Newfoundland, where I left the flight because we

were spending a day or two in each stop to repair something and it was cutting into my vacation time and Valerie was on her way to England, so I caught a jet over. Good thing, too, as the aircraft didn't arrive till six days later. They went by way of the Azores, then to Lisbon, where everyone was thrown in jail because the secret police thought they were going to start a war in Spain . . . . It was quite a story . . . . Anyway, I missed this part (it still would have been interesting) and greeted Valerie in London. We went to Hamburg, Germany, and down to Osnabruck where we set off on tour. . . . Went to Berlin by way of the East German sector—this was quite grim—our passports were checked six times in that sector both going and returning. . . . When we arrived in Berlin, we visited the border area, and took pictures. What an amazing difference between West and East Berlin—one side full of life, light, people, teeming with cars and pedestrians, and the other side desolate, dead looking, bombed-out buildings, no people, no cars, but flags flying everywhere. This seems to me to be the mark of an agressor country. The border of course is well marked by 10 ft. high walls covered with glass on top or metal spikes. All the windows and doors of the houses are boarded up or bricked up. The whole area is really forbidding. It was a sight that brings the situation really home—makes you think.

"The people here have been wonderful, all over Europe, friendly and very courteous to us. We thought Germany in particular was especially progressive, very clean cities. The national pastime all over Europe seems to be night window shopping, so we joined the crowds.

"It has been a most memorable experience and one I hope we can repeat next year!"



### Class of 1957

Dr. and Mrs. Pedro G. Colon, Box 36, Naguabo, Puerto Rico, sent Christmas Greetings.

As also did Dr. L. D. Garner, 1940 North Capitol Avenue No. 6, Indianapolis, Indiana.

We received the following from Dr. Laurence A. Gray, 161 North Washington Street, Marion, Indiana:

*"I am discontinuing practice in Fort Wayne, Indiana, and resuming practice in Marion, Indiana as of October 1, 1961. I will be associated with the Davis Clinic as a member of the staff continuing a general practice of dentistry. Lew Urschel is also associating with the clinic as an Oral Surgeon (Class of 1958)."*

*"I will keep you informed of our progress."*

Dr. and Mrs. Robert H. Owens, 17 Buttermilk Pike, So., Fort Mitchell, Kentucky, sent Christmas Greetings with this note:

*"Christmas wouldn't be complete without a little note to you, Mrs. Harvey. Hope this card finds you in good health. Practice is fine, picking up all the time. I'm happy to report I now have a wonderful wife."*

*"Hope all's going well at the school . . . would love to see the new addition—from the Alumni Magazine it sounds wonderful."*

Dr. and Mrs. Eric von Mohr sent Christmas Greetings from 411 South 7th Street, Blythe, California.

### Class of 1958

Dr. Delmar W. Byerly, 1018 Hume Mansur Bldg., Indianapolis, sent Holiday Greetings.

Dr. and Mrs. S. L. Mangi sent Greetings from 147, Jail Road, Indore, (M.P.), India.

Dr. Govind B. Shankwalker, Sir C. E. M. Dental College, Bombay 8, India, also sent Greetings.

We also received Holiday Greetings from Dr. Alegria C. Zita, 1357 Felina, Paco, Manila, Philippines.

### Class of 1959

We received an interesting letter from Dr. James O. Beck, Jr., 53 Arvine Heights, Rochester 11, New York, and among other things he wrote:

*"Gradually we are becoming acclimated to the academic, political and spiritual atmospheres of Rochester, N.Y. With the exception of our not being registered to vote, which requires a one year residency in the state, we are now full-fledged, transplanted Hoosier New Yorkers of the first degree. All three children are in school, also, and they are acquiring the eastern brogue so rapidly that we often are somewhat startled when we hear them speak."*

*"Although I entered the graduate program at the University of Rochester School of Medicine and Dentistry through Dr. Ehrling Johansen of the Department of Dentistry and Dental Research, my immediate advisor is Dr. George W. Casarett in the department of Radiation Biology, division of Radiation Pathology. It is in this department, seven floors below the Department of Dentistry and Dental Research, that I 'hang my hat' and have my study space. At present I am engaged in full-time academic work primarily in radiation physics and radiation biology. I am beginning to compile the literature dealing with the various aspects of radiation biology-pathology in regard to the tissues of the oral cavity and other head and neck regions. The greatest accomplishment so far has been passing the German language proficiency examination. Now to become 'proficient' in French!"*



Dr. Robert N. Modlin, 87th Med. Det., APO 696, New York, writes,

*"Hello again from Germany. Nancy and I are anxiously awaiting our first baby next month and also our military termination in June of this year."*

Dr. Hala Zawawi sent Greetings from P. O. Box 849, Kuwait, Arabia, with the following note:

*"This is to wish you and all friends at I. U. School of Dentistry a Merry Christmas and all the best during 1962. I hope to spend Christmas with the family in Bombay this year, and that's when I expect to get married before coming back to Kuwait. Next year I'll be writing to you as Mrs. Henderson."*

#### Class of 1960

Dr. N. T. Desai, "Cliff House," Cumballa Hill, Bombay 26, India, writes

*"My present assignment here is quite interesting. I am recently selected by the Public Service Commission and have now joined the Mahaarashtra State Government Medical Service at the Government Dental College, Bombay. In mornings, I attend to new patients seeking admission to the Hospital and specially referred cases from the various departments of the Medical College. I have teaching assignments for undergraduate dental and medical students, medical interns attending the dental college and district medical officers for special training in dentistry to set up District Dental Wings under the Rural Dental Health Scheme Plan. I do guide students working for Masters degree in dentistry. I spend my afternoons supervising students clinical work, giving them lecture-demonstrations etc., and working in Periodontia Department."*

*"I am trying to establish cooperation in the working of dental department with various departments of medical*

*hospital, particularly hematology section, general pathology, medicine, skin specialists, etc.*

*"I hope the next extension wing of the dental school is completed by now."*

*"Once again I wish to express my sincere feeling of indebtedness to all who have offered me a helping hand."*

A Season's Greeting was received from Dr. Richard Elzay and family, 732 Maple Lane, Brownsburg, Indiana.

Dr. Hassan Fahmy, 11 Rifaa Street, Apt. 6, Manshiet El Bakri, Cairo, Egypt, U.A.R., wrote last fall that he had just spent his 6 weeks' summer vacation at the seashore at Ras El Bar, and sent his best wishes to all.

We received a change of address for Dr. Harvey Levinson, 16545 Hartsook, Encino, California.

Dr. and Mrs. Phillip E. O'Shaughnessy, 3507 Eisenhower Drive, Indianapolis, sent Season's Greetings.

Dr. Dilia Rieser, 1022 Villa Avenue, Indianapolis, sent Season's Greetings.

#### Class of 1961

Dr. William R. Border, AO 3114303, 5010th USAF Hospital (AAC) APO 937, Seattle, Washington, sent Christmas Greetings with the following note:

*"Am enjoying Alaska, but must admit it is really quite different than Indiana. The temperature outside is -35° and it is dark in mid-afternoon. Only about 3 hours of daylight now and we've got plenty of snow. The dental clinic here at the base is modern, with Midwest air-rotors, Vac-u-Dents, etc. There are 13 dentists and we each have a room with one assistant. There are 2 in Surgery, 1 Prosthetic officer, 1 part-time Orthodontist, and the rest of us do General Dentistry. Service life isn't really too bad, and I feel that it is an*

*(Continued on page 35)*



# Who's Who and Where ???

Paul Starkey, D.D.S.

It happened!! The editor of this publication and yours truly both got a letter concerning this column and a so-called "error" (the first one I ever made in my life) published in the August, 1961 issue. I just can't resist publishing excerpts from those letters and our editor's reply to one of them so that you may see how some members of certain classes react to "innocent" errors.

This columnist had written:

*"The College became a part of the State University in 1925, and in June, 1926, this class was the first to go to Bloomington to receive their diplomas and degrees."*

This was information which had been given to me by Dr. Kesler E. Truelove and which I included in my story about the 1961 graduates of IUSD.

In a letter received from a prominent I.U. graduate of the Class of 1925 hailing from Mishawaka, the writer says concerning the above-mentioned statement:

*"The Class of '25 is going to hate you for saying this. Better look it up, boy. Those '26 boys have given us trouble before. The Class of '25 will soon claim another distinction, that of having one of our members being the first I.U. graduate to become President of the A.D.A." He continues, "I'm sure there are many Alumni, like myself, who deeply appreciate the Bulletin, but never say so. Please continue the fine work." (I like this fellow)\**

*(signed) Al Shoemaker*

Shortly after receiving this "fan mail," Editor Ralph Phillips placed a letter he had received, along with a copy of his reply to said letter, on my desk. Excerpts follow:

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\*columnist's comments

"Dear Ralph:

*"It isn't often that I write an editor in an attempt to correct an error printed in his publication, but I cannot resist calling this one to your attention.*

*"On page 43 of the August, 1961 issue of the Alumni Bulletin there is included in the write-up about Dr. Truelove and his son the statement that the class of 1926 was the first class to go to Bloomington to get their degrees.*

*"This is in gross error because the class of 1925, 'my class,' was the first one to go to Bloomington. I think the record will show that the law authorizing the purchase of the dental school was passed in March, 1925, and it was then decided that the class to graduate in June would be included in the Bloomington group.*

*"I know this to be true because I was arrested for speeding in Paragon, Indiana, while I was trying to get to Bloomington, and because of this was a little late to join in the procession. I jumped in while it was in progress and went on to get my degree.*

*"There is no use trying to correct it, but don't let anyone pull it again."*

*(signed) G. D. Timmons*

Following is our editor's reply (only after serious consideration)

"Dear Jerry:

*"I appreciated your note concerning the error relative to the fact that the Class of 1925 was the first one to go to Bloomington. There has been considerable sentiment to resist any temptation to ever again mention this particular class and I suppose that has been reflected in our publication. However, I will see that the error is noted in the*



*next issue and will further send your letter to the administration in Bloomington to see if it might be possible to rescind your degree because you were late in the procession. I think it would be an unusual accomplishment to have a future President of the American Dental Association who had no dental degree."*

*(signed) R. W. Phillips*

After all of this, my curiosity took me to the foyer in the first floor of the Dental School where the class pictures are hung. I had to have a look at the Class of '25 and '26 and in the Class of 1925, I spied the photograph of Dr. Maurice Healey, a member of the I.U. Faculty. He was across the street, so I gave him a call and inquired as to where he received his degree. I told him of Dr. Timmons' message and Dr. Healey said that he distinctly remembered Jerry Timmons being late for graduation and getting into line as the procession was on the move. Now who am I to question the integrity of such men as these?

However, I noticed in the class photograph of 1926, that Dr. Herbert Mason was a classmate of Dr. Truelove's. Knowing Dr. Mason well, and having once practiced in his office, I elected to give him a call and see what he might have to say on this matter. He told me that he had always been "under the impression" that his class, that is the Class of 1926, was the first class to receive their diplomas in Bloomington. I said "Now Herb, please repeat that for me," and I got it back again word for word.

He also had some other things to say about the Class of 1925 that I felt it best not to mention. However, following are some of his comments and I would like to emphasize that these are the words of Dr. Herb Mason:

*"Information has come to me concerning certain honors and recognitions claimed by the IUSD Class of 1925. They claim to be the greatest class ever*

*to graduate from Indiana. This pretension may have been true prior to 1926. However, the passage of time has definitely proven the Class of 1926 to be the greatest ever to graduate from IUSD. It has taken us thirty-six years to convince the dentists of the great state of Indiana of this fact, (seems like an awful long time to convince anybody of anything)\* but now, those who realize some of the things we have accomplished, accept this fact. More and more men are realizing this each year.*

*"One very important action taken by this great class is our annual breakfast which is attended by more than half of those remaining members of our class. Also we have a reunion held every five years. This is a gala event attended by the wives of the members. (Understandably, they probably need supervision.)\* We have always had as our guests, the full-time faculty members and all high-ranking officers of the American Dental Association who are attending the state meeting. At the breakfast every important officer is invited and many of our state officials from the Governor down have attended. They are free to admit that we are the greatest class ever to graduate. (Some people will admit anything for a free meal.)\**

*"We have a very substantial amount of money in our treasury which grows every year. This money is used when the time arrives and no one is forgotten.*

*"Chain letters are started each year from the breakfast attendance and every member of the class has correspondence from other members.*

*"There seems to be some confusion as to which class was the first official one to graduate from I.U.*

*"I have been informed that one of the 1925 members tries to prove they were the first, saying he could well remember as he was arrested for speeding in Paragon on his way to Bloomington*



for the graduation exercises. Who could be so confused, for he was well off the proper road, and I cannot see why anyone would go through Paragon on his way to Bloomington. From the information I am able to obtain, they had no officer there on duty in 1925.

"One of the members of the class of 1925 will be the first A.D.A. president who is a graduate of I.U. But, this is not such a great thing to accomplish for I am certain the A.D.A. is having some difficulty getting candidates for the office.

"The great class, 1926, in the past and at the present time furnished members for the State Board of Dental Examiners, delegates to both state and national organizations, and for national councils. And, last but not least, the class has furnished a number of state presidents.

"The Class of 1926, as a group, have always conducted themselves as gentlemen and at no time ever threw water on any other class when pictures were being made for the Ident Annual, and our breakage fee was always low.

"Resurrect your 1924 Ident and study the group pictures on pages 73 and 83. This will leave no doubt in anyone's mind who is the greatest class to ever graduate from IUSD."

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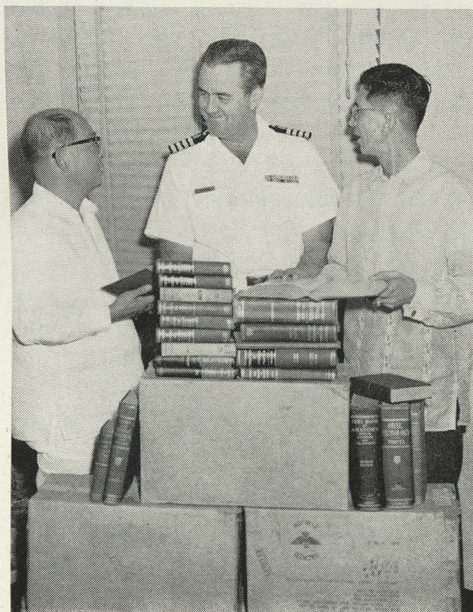
Well, dear Alumni, now I know how to get some response from you in regard to this column and you know how to get some "ethical" publicity for your class in the Alumni Bulletin. If there are any other IUSD graduates who are given to flagrant boasting about their class, I'd be "delighted" to hear from them.

Now to get down to the business of this column and what would be more natural than to do honor to that IUSD graduate of the Class of 1925 who is President-Elect of the A.D.A., Dr. Gerald D. Timmons.

## Alumnus Aids Literature Collection For Philippines

At the request of Capt. F. K. Etter, DC, USN, (Class of 1940), Dean Hine and Mrs. Walker, librarian, assembled and shipped over 4,000 copies of single dental journals and 50 bound volumes. Capt. Etter distributed these to the dental schools and libraries in the Philippine Islands. Some of these volumes which were just received are shown in the photograph below. Left to right: Dean Genaro B. Felizardo, College of Dentistry, University of the East, Manila; Capt. F. K. Etter, Senior Dental Officer, U. S. Naval Station, Sangley Point, Luzon, Philippines; Dean Jose D. Rodriguez, College of Dentistry, University of the Philippines, Manila.

Capt. Etter wishes to call to the attention of the alumni that spare dental textbooks are still urgently needed and these may be sent to either the dental school or to Mr. R. B. Etter, 1921 Adams Street, Indianapolis, Indiana for shipment to the Philippines.







Dr. Gerald D. Timmons was born August 9, 1897, in Valparaiso, Indiana. He has a degree in Pharmacy and received his D.D.S. from IUSD in 1925. Dr. Timmons is the Dean of Temple University School of Dentistry and prior to his appointment, served as Acting Dean of our own Indiana University, School of Dentistry. He is a fellow of the American College of Dentists of which he is a former president. He was a member of the Healing Arts Education Advisory Committee of the National Service System. Dr. Timmons has received a number of honors, including an honorary Doctor of Science degree conferred by Muhlenberg College; the Fones Medal of Connecticut State Dental Society; the Conwell Award of Temple University and an honorary Doctor of Laws degree from Fairleigh Dickinson University.

From 1955 to 1961, Dr. Timmons was Speaker of the House of Delegates and he is also former Chairman of the A.D.A. Council on Dental Education and a past president, secretary and treasurer of the American Association of Dental Schools.

IUSD is proud of this great son of her's and he may well be proud of the high esteem in which he is held by his many friends in Indiana, including the Class of '26.



# A Biographical Sketch of Ivan A. Welborn

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*(continued from August, 1961 issue of the Bulletin)*

Before the year was out Mr. Newlin felt he could learn more by working in a dental office for Dr. Cash in the 100 block on West Washington Street. He suggested I take his place in the West Laboratory. This was agreeable with Dr. West as it also was with me, for Dr. West's laboratory had running water. Also Dr. West paid me forty dollars per week and Ingersoll was only paying twenty-five. Furthermore on a salary of this amount I could afford to marry the Carmel Quaker girl, Edna Jones, who was in my 1915 high school class. In June 1920 this hoped-for event took place one Saturday afternoon in Noblesville, Indiana, in the Quaker parsonage of the Reverend Gertrude Reiner. We could not afford a honeymoon, but Edna solved that problem. She worked in the office of the Lake Erie and Western (Leave Early and Walk) Railroad, and could secure passes by waiting two or three months. This we did and we went to Niagara Falls, which was about as far as her passes were good.

Mr. Newlin was frequently overloaded with work so I spent some evenings helping him. As this evening help became more frequent, we began to ponder the possibility of my spending full time in the office with him. In this office I could observe and perhaps do a little crown and bridge work which I anxiously wanted to learn. The crowns were only shell crowns and the pontics largely solder, but I felt it was a step forward. After about a year I left Dr. West and joined Mr. Newlin in Dr. Cash's office. Then we began to plan for our own laboratory. We had the assurance of the largest "ad" office in Indianapolis that we could have all their prosthetic work if we opened our own laboratory.

While working in Dr. Cash's office I met one of the professional men who was to have a most valuable influence on my future years. He was Dr. M. H. House. Dr. House, even at this early date, was recognized as an outstanding dentist, especially in full denture prosthesis. Some of his original research was revolutionary, and his ability to apply these research findings into practical application was already becoming recognized beyond the limits of our area. I intensely wanted to know more of his work, but this was denied me until six years later.

Mr. Newlin and I rented a large room on the third floor of the "When Building" on

North Pennsylvania Street. By spending our evenings and weekends building benches and doing our own plumbing we soon had our laboratory ready to open. Our most pressing need was money. I borrowed three hundred dollars from my father-in-law, who doubtless had some mature reservations.

In those days I doubt if anyone who knew us well would have mentioned modesty as our most outstanding virtue, but we did *not* announce our opening like an acquaintance. For this opening we had announcements printed and widely distributed saying, "Doctor, your troubles are over, The Blank Laboratory opens the fifteenth of next month." It consisted of a delivery boy, a disabled war veteran, my cousin, and myself. 1922 was a busy year, but the laboratory profits did not accumulate at a very rapid rate. I did, however, find the time to visit my friend and former classmate, Dr. Johnston, who was practicing in Mooresville, Indiana. During later visits I was delighted to hear that he soon hoped to establish himself in Indianapolis.

In March of this year our son, Ivan, Jr., was born. As in every family the new responsibility gave a new perspective to my life. With new concentration I attacked the laboratory problems.

Dr. West had moved his laboratory into the Bankers Trust Building and it began to appear that both Dr. West's laboratory and ours might benefit by uniting. Dr. West's was predominately crown and bridge, and ours was largely full denture prosthesis. Late in 1922 Dr. West, Mr. Newlin, and I formed an equal partnership at the Bankers Trust Building address. We called our laboratory the United Dental Laboratory. It has been in continuous existence ever since.

By this time Dr. Johnston had established his office in the same building. Soon after his opening I presented myself to his office for some long neglected dental work. In the course of this work he discovered a lower molar which would best be preserved by a full crown. Dr. Johnston told me he was a member of a newly formed study club devoted to the study of crown and bridge technic, conducted by Dr. Frank Hamilton. This group needed a patient who required crown and bridge work and who would be willing to have the work performed



before the class. He said that if I were willing he would mention it to Dr. Hamilton. In the course of this work, Dr. Hamilton told Dr. Johnston that his technician had left a short time before. He asked if I would be willing to leave the laboratory in order to accept such an arrangement with him. After a full discussion of this idea with Dr. Johnston, and all others most intimately concerned, I sold my interest in the United Laboratory and entered Dr. Hamilton's office as an employee in March 1923 on a two week trial basis. This trial period ended eleven years later.

The chief appeal to me for such an arrangement was the possibility of securing experience in all phases of laboratory procedures. I wish more of my decisions had proven equally sound. Dr. Hamilton possessed a very stimulating personality. His ability as a dentist was exceptional, and his interests embraced all branches of dentistry (which would advance the welfare of his patients or his profession.)

Except in the last few years, the only means of training dental technicians has been by the preceptor or apprentice method. This method leaves much to be desired, for the employer or teacher is under no obligation nor regulation of any sort, sometimes to the distinct disadvantage of the trainees. Neither were there any standards in existence to screen prospective trainees, as to education, ability, and health. A great deal of benefit should soon be apparent to both the dental profession and the laboratory craft, now that many colleges and universities have begun training programs for technicians.

Upon entering Dr. Hamilton's office I soon found myself, in addition to performing the usual laboratory technics, assisting him with his study club. This group was composed of eighteen or twenty dentists. I learned much from this association because I had most to learn about crowns, bridges, pontics, and all kinds of abutments. This group concentrated on tooth anatomy. Dr. Hamilton invited Dr. James Prime of Omaha, Nebraska to address us. He told us we should concentrate on the study of tooth anatomy first. We elected to carve tooth reproductions of six diameters in plaster. Under Dr. Hamilton's direction, I prepared drawings from which blueprints were made to the average dimensions as given in Dewey's Dental Anatomy. The study club continued to meet for five years.

During these years, the National Bureau of Standards was asked to begin the testing of dental materials and to set standards for their

use. As in every pioneer effort, the early materials still exhibited considerable variation even in the manufacturer's directions for their use. Dr. Hamilton felt we should test as many dental materials as possible in order to select those which would meet his exacting specifications. Proper equipment was not always available for testing; nevertheless, many materials were tested and changes made under Dr. Hamilton's direction. His interest embraced gold alloys for both small and large castings using the various new investments. We also ran tests on plaster and hydrocol plaster. In order to establish standards for our own tests we purchased gypsum rock, ground it with a mortar and pestle, and made our own plastic in small quantities. Our years of detailed attention to tooth anatomy challenged our skill in its reproduction in ceramics. I ran several hundred tests attempting to devise methods of stabilizing denture base materials. Out of these various investigations material for several dental clinics appeared.

The Bureau of Standards consulted Dr. Hamilton's office in the early days of their testing. At least two manufacturers used his office as a "field" testing office for new or experimental products. Dr. Hamilton and Dr. House were close personal friends all their lives. We planned to take Dr. House's course which was to be given at the Deaner Institute in Kansas City about 1925, but Dr. House became ill and the course was cancelled. The next year illness forced his retirement from Deaner and he moved to Whittier, California.

In April 1927, Dr. House wrote us he would come to Dr. Hamilton's office and build a case to compensate us for the course we missed at Deaner. He said, "Select any patient except one who is deaf or has a mustache." Upon his arrival, we were delighted, for he brought one of the first of three fully adjustable articulators then in existence. For several years Dr. Hamilton had been buying and discarding every improved articulator which was on the market. Dr. House's rotary occlusal grinder was familiar to us for we had been using it, but this new one not only incorporated the occlusal grinder, it provided the missing link. No one could have been more delighted than Dr. Hamilton when Dr. House let him have this handsome articulator at its original cost of \$500.

The case Dr. House constructed was superior to any we had previously made. It was with a great deal of pleasure that we continued to test Dr. House's ideas for the improvement and refinement of these full denture technics.



We began to adapt his methods to partials, splints, and full mouth rehabilitation.

In November 1928, Dr. House gave his first full denture course at the University of Southern California. Dr. Hamilton enrolled and Dr. House asked me to accompany him and act as Dr. House's assistant. Dr. Hamilton paid me full salary and also the transportation and expenses for myself and family, which now consisted of two sons, Richard having been born in June 1926. The trip was most enjoyable in every way.

In 1926 or 1927 Dr. Johnston was asked to assume the direction of a study club in crown and bridge. I was pleased when he asked me to act as his assistant. The group consisted of about fifteen dentists and was a most congenial class. For about seven years we continued the study of tooth anatomy and its reproduction in plaster, together with the study of all types of bridge abutments and pontics. It has been a particular delight to me to see many of the basic principals derived from these early studies incorporated into the book Dr. Johnston has just co-authored.

In 1928 Dr. Johnston suggested to about six of us that we meet with the aim of forming a group for the purpose of studying and reporting on current dental literature. In formulating these plans it was decided that at each monthly meeting two members would report on two current dental articles of general interest. Each member was required to give his own thoughts regarding the presentation. In these expressed views, the essayist was frequently included as well as the author and his paper. With this type of organization it was necessary to limit the membership. It was decided to include twenty-two dentists, the manager of both local dental supply houses and myself. Dr. Johnston suggested our group be called the Hamilton Club, in honor of Dr. Frank Hamilton. He appointed me to inform Dr. Hamilton. My task was difficult for two reasons. First, Dr. Hamilton was my employer, and secondly, one of his few phobias was that no living person should be so honored. I found the association with the Hamilton Club a very rewarding experience. Dr. Johnston was our first president. I was charged with the responsibility of directing the group the fourth or fifth year of existence.

Early in 1929 after returning from Dr. House's course in California, Dr. Hamilton and I began making a movie to show in detail the construction and use of the intra oral registration in the construction of full prosthetic dentures. We had the film processed by Eastman in Rochester. When it was finish-

ed, Eastman requested permission to place a copy in their scientific library. Early in 1935, following surgery it became all too apparent that Dr. Hamilton would never be able to practice again. He asked me to dispose of his equipment, but charged me to be particularly careful that the dental records, X-rays, and study models of his patients be placed in the hands of the patients themselves. This was a sad task, but we both were delighted when Dr. Johnston agreed to take over the office. At one time I computed the cost to Dr. Hamilton of his making it possible for me to attend a great many regional and national dental meetings as well as paying tuition for courses. He always paid my expenses and full salary for all time spent at those meetings and in the study clubs. The cost was in excess of \$10,000. In the 1920's and depression 1930's this was a great deal of money. The only way I know to express my appreciation is to try to continue in a small way his ideals and interest in dentistry which was his life's foremost concern.

In correspondence with Dr. House, he asked me to join him as soon as Dr. Hamilton agreed. My family and I arrived in Whittier in May, 1935. We had the usual problems of establishing residence, but did enjoy the small town atmosphere which was characteristic of this small Quaker community at the time.

Within a few weeks, Dr. House began the construction of a large two story concrete structure which became the class room building. This building was built around the chicken house so class could continue while construction was in progress. By Labor Day, 1935, when the building was ready for occupancy, thirteen classes of twenty-two members each had been formed to meet each month. Some met all day, others on afternoon and evening and others a half day. Dr. House's course of instruction consisted of about five lectures, all of which were coordinated with emphasis placed on the basic principals underlying a comprehensive and basic diagnosis of full denture construction. After these lectures, prosthetic dentures for an edentulous patient were constructed before the class as a demonstration case. Following this, two dentists selected one patient, one taking the upper impression, the other the lower. I still recall entering the office laboratory after a long class day and finding twenty-two impressions waiting to be boxed and poured.

Most of the members of the classes had long since delegated almost all their laboratory procedures to auxiliary help so our progress at this stage was slow. On a few rare occasions



I recall Dr. House finally sitting down to rest after a most difficult class session and saying, "Ivan, humanity is in one hell of a shape." This is as close as he ever came to expressing frustration or the possibility of failure.

Early in Dr. House's professional career he did some work with Dr. J. Leon Williams. This served to stimulate his interest in the reproduction of artificial teeth made from molds of natural teeth. Early in his career he carved the molds for a type of posterior tooth which is still in use today. At Kansas City two or three molds of anteriors began to be manufactured by the Dentists Supply Company using his master dies. When he came to Whittier Dr. House attacked this problem with renewed vigor. He began to classify thousands of disassociated teeth into groups having similar anatomical characteristics. He found that by using nine basic classifications the requirements for almost all full denture cases could be met. He and Dr. Jack Loop published a booklet based on the results of this research entitled, "Form and Color Harmony in the Dental Art." He gave several copies to your library so I am sure you are familiar with it.

We made all the anterior teeth used on the class cases, the demonstration cases and those used in Dr. House's private practice. To meet these requirements it was necessary to constantly expand our molds. This involved reproducing the natural tooth in hard cast metal, then the enlargement was also cast in metal. The enlargement was then used for the casting of the die and counter die. The porcelain was packed into these dies and removed before fusing. These molds were constantly expanded until the upper and lower molds were sufficient to reproduce one hundred eighty-three different sets of anteriors. These molds and dies today constitute the original molds for the Bioform and Bioblend line of teeth, manufactured by the Dentists Supply Company of York, Pennsylvania.

During the summer dentists from many parts of the United States came to Dr. House for several weeks of continuous instruction. These were usually dentists who specialized in full denture prosthetics or teachers of prosthetics in universities. These men were given the lectures, and a demonstration case was built before their group. During these years Dr. House had visitors from almost every country where dentistry was practiced as a separate and progressive profession of the healing art. These visitors without exception were very intelligent people, but I often found it difficult to discuss a technical subject such as we were teaching in our "crazy" English language.

Some of them continued to correspond with Dr. House.

By 1939, many of Dr. House's classes had completed their courses of instruction, and others had combined so that Dr. House and Mr. Cal Pace could continue their instruction. I then yielded to considerable pressure from former class students and opened a laboratory in Whittier, devoted to the technics we had been teaching. With this type of work it is desirable to keep the laboratory a small one. I prepared for work space for myself and two assistants. We soon found ourselves doing all types of laboratory technic and working long hours. I spent some time helping Dr. House with four more classes during the next four years.

*(to be continued next issue)*

## ALUMNI NOTES

*(Continued from page 27)*

*opportunity to become a more proficient dentist.*

*"May you all have an enjoyable Holiday Season."*

Last, but by no means least, we also received Season's Greetings from Dr. and Mrs. Merlin Wuebbenhorst, 222 N. E. 14th Street, Delray Beach, Florida.

## History of the Indiana Dental College, 1879-1925, Available

The history of the Indiana Dental College up to the time that it became part of Indiana University has been written by Dr. Jack D. Carr. Mimeographed paper bound editions are available and can be purchased for \$2 each. Checks should be made payable to the Indiana University Dental Alumni Association, 1121 West Michigan Street, Indianapolis, Indiana.



# Class and Fraternity Notes

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## FRESHMAN CLASS

After two weeks ninety-one new students finally adapted themselves to the crowded schedule of the first semester of professional training. A full day of classes was a new experience to most of the class and it required planned study habits and the utmost in time utilization.

An election was held and the class officers are as follows: Ben Asdell, president; J. R. Hudson, vice president; Joel Knapp, treasurer; and Miss Sybil Sanders, secretary. Student council members are George Clark and Steve Cohen. Dr. William Gilmore is the class sponsor.

Class-planned activities were limited to business meetings during the first few weeks. Social activities attended by the class were the Faculty-Student Reception held in the Student Union Building and the fraternity rush-weekend parties at the fraternity houses. The first social event sponsored by the class, which was after mid-semester exams, was a stag party and it was enjoyed by all who attended, including the faculty.

Needless to say, the Thanksgiving vacation was much needed, well earned, and thoroughly enjoyed by all. Now that we are back to our studies again and well on our way toward a professional career, we are looking forward to an enjoyable, profitable, and educational stay in dental school.

*B. W. Asdell*

## SOPHOMORE CLASS

The Sophomore Class has had a great deal of fun and fellowship in preparing for the first semester's extracurricular calendar. The evening of November 10, at the Elk's #13 Lodge, found the class and guests enjoying an informal dance which included entertainment, the adoption of a class motto (which in Russian is translated as, "We WILL Pull Teeth"), and a buffet supper. Jon Walker was general chairman for the event.

We are now preparing a Christmas display for the Dental School having the theme, "All I Want For Christmas Is My Two Front TEETH."

Roger Sullivan is organizing the class basketball team for this year with the hope that "a few more pounds will bring a few more wins." Goal: Beat those champion Juniors!

Social events in the planning stage include a Christmas party, in conjunction with the Dental Hygienists, for a group of needy children. A stag party (with an all-class cast of entertainment) is being planned for the first part of the second semester.

Class officers for this school year are as follows: President—Joseph L. Fox (Evansville), V.P.—Curtis V. Clark (Indianapolis), Sec.—John I. Parsons (Indianapolis), Treas.—David H. Thompson (Evansville), Student Council members—Maurice P. Lord (Lafayette) and Arden D. Walgamuth (Brownsburg).

## JUNIOR CLASS

The Junior class has at last "sunk its teeth" into those aspects of dentistry anticipated during the prenent years. Two months have now elapsed in this year of transition from the inanimate to the animate. This span of time still finds some junior class members adjusting and others planning ahead for the challenges which this year affords.

The more athletic members of the class have begun their third season of basketball practice. Our class team has won the Medical Center-Greater Indiana University Tournament for the last two years straight and are working hard to make it three in a row. This is of particular interest since our class is the first dental school team to ever win this event.

A class Halloween Party-Dance was held on October 28 with a large turnout of members and their dates attending. The refreshments and entertainment were a welcomed relief from the weekly routine.

With the taste of Thanksgiving vacation still in our mouths we are readily anticipating the coming Christmas break. Hopes of a bigger and better New Year will be given more attention as soon as we finish the last of our ten finals on January 19. In order to start the second semester off on the right foot, a second class party and dance will be held shortly after these examinations for the survivors.

*John W. Sandlewick*

## SENIOR CLASS

The members of the senior class are now vigorously working toward the completion of their requirements prior to graduation. We



are much closer this year due to the realization that we will soon be leaving dental school and moving to many different areas of the state and nation. Our social functions this year have received almost one hundred per cent participation and we are looking forward to the various class activities planned for the remainder of the year.

The Eli Lilly Company started our social year with an informative tour of their research division followed in the evening by a dinner-dance at the Sheraton-Lincoln Hotel. A delicious fillet mignon dinner together with an evening of dancing made this a thoroughly enjoyable evening.

Our first class-sponsored function was a class stag in October. Two talks were presented followed by a question session. The first subject dealt with our selective service obligations and the second, by Mr. Calvin Kernodle, was on our future relationship with dental technicians. The usual stag menu of baked beans, hot dogs, and beer was then offered to the attending members and consumed with obvious relish. After our appetites were satisfied we turned to the more serious considerations of the stag; that is, poker, pool, and conversation. The stag was both entertaining and informative and has set the pace for the rest of our senior social calendar.

A Christmas dance was held on December 20th at the Hotel Severin. There was a semi-formal dinner-dance in the Rainbow Room which was decorated in keeping with the yuletide season. Our Christmas vacation started with a note of good humored companionship as this dance was the highlight of our social year.

Our social events have done a great deal to ease the pressures coincidental with the senior year. The great bulk of our time, of course, is concerned with increasing our knowledge of dentistry and it is toward this goal that the members of the class will be primarily working during the coming spring.

*John Ring*

## PSI OMEGA

Many activities have taken place at Psi Omega since the close of the school year last June. All through the summer Psi Omega continued to hum as many innovations and redecorations took place at the fraternity house. We have completely remodeled our lab, a new pool table has been placed in the room off the main foyer, new tables and chairs have been placed in the house, the roof has been repaired and, in fact, the house has been gone over from stem to stern to put it in fine condition for the start of the year.

September began on an enlightening report that once again Psi Omega had won the Interfraternity Council Scholarship Award. During the month a casino party was planned for the actives and alumni which proved to be quite a successful event.

October was a busy month for our rush weekend began on the 13th and we were interested in meeting the new freshmen. Our program for the freshmen was well planned this year. A party was planned with interesting talks from our members and alumni followed by an informative film and a lab set up of required freshman technique. Also during the weekend tournaments in ping pong, darts, pool and horse shoes were played. A cookout Saturday afternoon followed by a dance during the evening ended a very successful weekend. This was evident as Psi Omega pledged 29 fine freshmen to fill our quota for the year.

November 18th was the date set for our Thanksgiving dance. The new freshmen pledges were honored guests for the evening and were entertained by a cocktail hour and a fine dance band. A very stimulating and educational film was shown on Communism and the Berlin situation as a special event for the month.

*Donald F. Sheller*

## XI PSI PHI

Theta Chapter is looking forward to an exciting new year, because we have just moved into a new house at 1301 West Michigan. This house is larger and in much better condition than the one on Limestone. The present house has eight rooms on the ground and second floor levels, and in the basement we have our laboratory, television room and recreation area. We would like to extend an invitation to all alumni to drop in and see our new facilities when you are near our neighborhood.

We held elections the first of November. The new officers are:

William Risk—President  
Frank Faunce—Vice President  
Sam Heltzel—Secretary  
Jim Bayley—Treasurer  
David Lind—Editor

We also have a very fine pledge class this year. They are:

Junior  
Keith Yoder, Goshen  
Sophomore  
Steve Wilson, Metcalf, Illinois

Freshmen  
Stuart Loft, Brooklyn, New York  
Richard Fontaine, West Lafayette  
Don Roberts, Hammond



Dale Cain, Richmond  
Raymond Kim, Los Angeles, Calif.  
George Clark, Indianapolis  
Special Student  
Dr. George Miyares, Havana, Cuba

With the new house, the new officers and the new pledges, we are looking forward to a very successful new year.

David C. Lind

## DELTA SIGMA DELTA

The beginning of the fall term at Xi Chapter of Delta Sigma Delta found the chapter house undergoing a facelifting operation. The billiard room, lower social areas, and the lab were completely repainted, with the latter being further embellished with humorous sketches executed by Dan and Dave Crane.

A new coffee maker has been purchased with the Delt Wives providing the major impetus and funds. It is expected that this machine will add greatly to the graciousness of the social events (and will incidentally save money expended on rentals of such a device). The Delt Wives have provided an elaborate smorgasbord for the Rush Dance, a hors d'oeuvres table for the pre-Thanksgiving dance, have held a fund-raising casino party, and have had meetings with guest speakers, thus far this year. This organization has contributed much toward the social events and chapter atmosphere.

The first activity for the chapter and the one involving the most preparation was the rush weekend. As Delta Sigma Delta entertained the freshmen and their wives first among

the fraternities this year, an early flutter of activity evolved. The freshmen were entertained on Friday evening of the rush weekend with guest speakers, a table clinic, casino party, and refreshments, while their wives were the guests of the Delt Wives organization at the Union Building. Saturday evening, Delta Sigma Delta presented a "Teahouse of the Autumn Moon" party with Japanese decor and mood.

A pre-Thanksgiving dance embodied the traditional fall themes with cornshocks, fall foliage, and a raffle for a large turkey.

The chapter hall has proved to be an attractive meeting place this year as the Freshman, Junior, and Senior classes of the Dental School have held stag parties or dances as well as the usual meetings, Delt Wives get-togethers, and the customary fraternity activities.

James E. Dice

## ALPHA OMEGA

With the first semester completed, Alpha Omegans see this year shaping up as one of their best. A completely equipped lab is now available to the members. The lab has just about anything needed by the A.O.'s.

This year the undergraduate chapter hopes to work more closely with the alumni chapter through the study club meetings which the alumni conduct. The meetings this year are concerned with pedodontia.

On the social scene, the A.O.'s got together at Brody's Village Inn one Saturday night in November. They hope to make this a bi-monthly affair. Also on the agenda is the I.F.C. dance and the Senior Banquet in May.

# Faculty Publications for the Year of 1961

*Each year the Alumni Bulletin carries abstracts of papers published by the dental school faculty. Although not entirely complete, the following group contains a major share of the publications for 1961.*

R.W.P.

Hine, M. K.: Chapter 4 in "The Dentist and His Assistant," edited by Dr. Shailer Peterson, St. Louis, C. V. Mosby Co., 1961.

The book, "The Dentist and His Assistant," was written primarily for dental assistants and those who desire to train them. Chapter 4 deals with the importance of dental health, tooth brushing, diet, and preventive dentistry and gives some pertinent information on each subject. The chapter was designed to emphasize

the dentist's responsibility to prevent the initiation and progress of dental disease and to furnish information to aid the dentist and his assistant in convincing the patient that adequate dental care is essential for the maintenance of good oral and general health.

Hine, M. K.: "Review of Dentistry," 3rd ed., St. Louis, C. V. Mosby Co., 1961.

This is the third edition of the "Review of Dentistry" which was published in 1949, 1956 and now 1961. This book was originally planned by the late Dean Ginn of Tennessee and has proved to be quite popular. In the third edition several of the first contributors were dropped, and several new ones added, so that the list now totals 30. In addition to editing



the book, Dean Hine also wrote the chapter on Jurisprudence.

The book is designed to aid dental students and dental graduates in preparing for examinations, and consists of a series of questions and answers on almost all phases of dentistry. A 50-page index is included.

Hine, M. K.: *The Journal of Periodontology*, Vol. 32, quarterly, 1961.

Four issues of the *Journal of Periodontology* were published in the year 1961, with a total of 368 pages. This *Journal*, which is now recognized as one of the better specialty journals in dentistry, includes articles related to the prevention, etiology, diagnosis and treatment of periodontal disease.

Burstone, C. J., Baldwin, J. J. and Lawless, D. T.: *The application of continuous forces to orthodontics*. *Angle Ortho.* 31:1, 1961.

Theoretical and experimental procedures were employed to study the delivery of continuous forces in orthodontic appliances. The following conclusions were reported:

1. No spring is completely constant in its action. The most constant forces, at optimal force levels, are derived from springs possessing low load-deflection rates and high allowable working loads.
2. 18-8 stainless steel has a slightly higher maximum load than gold if springs of identical rates are compared. Steel and gold are not interchangeable since the ratio of their moduli of elasticity is 1.8:1.
3. A low temperature stress-relief increases the proportional limit of a cold worked stainless steel wire and thereby increases its allowable working load.
4. Load-deflection rates can be lowered by reducing the cross-sectional dimension of a wire. For unidirectional loading, the optimum shape for a cross section is rectangular with wire depth at a minimum and width at practical maximum.
5. The greatest potentiality in altering spring properties is found in the linear configuration of the wire.

Carr, J. D.: *The Universal U and L bite-block film holder*. *O. Surg., O. Med. & O. Path.* 14:954, 1961.

A description of an inexpensive and efficient bite-block film holder adaptable to both upper and lower teeth. This technic has been taught at Indiana University School of Dentistry for the last five years.

Carr, J. D. and Norman, R. D.: *Effective use of the darkroom*. *Dental Clinics of North America*, Philadelphia, W. B. Saunders Co., July, 1961.

A description of a properly constructed darkroom and a review of proper darkroom techniques and their relation to the use of high speed film and higher Kvp X-ray units.

In summary: 1. Density must be controlled by the length of time the film is exposed to the X-rays. 2. Contrast must be obtained by proper developing. 3. Higher Kvp of the X-ray unit, and faster, more delicate films require proper facilities and accurate technique in the darkroom.

Healey, H. J.: *Replantation of luxate teeth*. *J. Ind. S. D. A.* 40:134, 1961.

Reports have been published on replantation of luxate teeth with the reported results varying in duration or permanency. It seemed that a review of the literature concerning the possible sequelae following this procedure would be of value and interest to the practitioner. These sequelae were determined to be: (1) Long duration retention, (2) Slow and incomplete root resorption, (3) Rapid and total root resorption, and (4) Immediate acute reaction and exfoliation.

Summarizing, the author states, "Replantation of permanent teeth can be recommended in carefully selected cases in which: (1) the age of the patient is conducive to optimum repair, (2) there is no root fracture, (3) the patient is in good general and oral health, (4) conditions are such that the procedure can be carried out in an aseptic manner, (5) the root canal can be filled properly and carefully, and (6) the patient and the parents have an intelligent understanding as to the possible outcome of the case.

Johnston, J. F.: *The dental technician and his training*. *J. Ont. D. A.* 38:6, 1961.

This article defines the relationship between dentist and technician, and the backgrounds, concepts, and prerogatives and responsibilities of each. Refresher courses which have been offered by Indiana University School of Dentistry and the responses to them are discussed. Included are the ideas of the author and the administration of Indiana University School of Dentistry concerning the objectives, curriculum, and probable results of the newly instituted training course for dental technicians.

Johnston, J. F.: *Stimulating the acceptance of professional responsibilities in clinical practice*. *J. Canadian D. A.* 27:8, 1961.

Professional responsibility is defined and its ethical connotations are set forth. Clinical re-



quirements at Indiana University School of Dentistry and their expected effects on diagnosis and consultation in practice are discussed. Case management, fee determination, and practice building are treated at some length.

*Johnston, J. F.: Preparation of mouths for fixed and removable partial dentures. J. Pros. Dent. 11:3, 1961.*

This article lists the reasons for preparing mouths for clasp-retained removable partial dentures and also some of the reasons why it is not done. The objectives of mouth preparation for both fixed and removable partial dentures are discussed, also the alterations which it may be necessary to make in tooth form. Splinting, the use of crowns, rests, and rest seats, guiding planes, and retention are also explained.

*Klein, A.: The association between deciduous dentin sclerosis and a calcium hydroxide methylcellulose base material. J.A.D.A. 63:76, 1961.*

Seventy-five children in the early mixed dentition stage with operative dental work completed on 351 deciduous teeth were observed from 4 to 28 months, with periodic bitewing roentgenograms taken at intervals of from 4 to 10 months. These patients had 191 deciduous teeth in which a calcium hydroxide methylcellulose base material was used beneath the alloy restoration (test teeth) and 160 deciduous teeth in which no base material was utilized beneath the alloy restorative (control teeth). Roentgenographic examinations indicated that 93 per cent of the test teeth containing a calcium hydroxide base material showed evidence of dentin sclerosis beneath the area of the base material. Ninety-nine per cent of the deciduous teeth without a calcium hydroxide base material (control teeth) indicated no roentgenographic evidence of sclerosis.

A densitometric evaluation was made of the bitewing roentgenograms of 115 deciduous teeth utilizing the Elwood Densitometer. The results of this roentgenographic densitometric evaluation indicate a localized increase of dentin sclerosis ranging from 0 to 20 per cent in the control teeth and from 0 to 125 per cent in teeth containing a calcium hydroxide methylcellulose base material (test teeth).

From the results of this research it is apparent that a calcium hydroxide methylcellulose base material is effective in the production of sclerotic dentin in deciduous teeth. There is no doubt that the "white area" seen roentgenographically is an area of sclerosis of the existing dentin and not an area of recalcification of carious dentin.

*McDonald, R. E.: Looking ahead in pedodontics. J.A.D.A. 62:406, 1961.*

Interest in dentistry for children will continue to rise and will be reflected in changes in undergraduate, graduate and postgraduate education. The pedodontist will assume more responsibility for minor tooth movement and orthodontic preventive procedures. Preventive procedures to control caries and inflammatory changes in the gingival and supporting tissues will be widely accepted. Research in pedodontics already encompasses almost all aspects of dentistry. There is a pressing need for expanded clinical research, particularly in such subjects as child behavior, oral habits, the reaction of teeth to traumatic injury, and periodontal disease in children.

*McDonald, R. E., Hine, W. C. and Watts, H. W.: Pedodontic observations during oral administration of a non-ionized iron polysaccharide complex. J. Den. Children 28:310, 1961.*

Previous inconclusive studies have associated pigmentation or extrinsic staining of teeth in children with the ingestion of an oral iron solution. A 90-day study was conducted to determine if a new oral, non-ionized iron polysaccharide complex preparation resulted in the pigmentation or discoloration of teeth in children or in other undesirable side effects.

Twenty-five children were included in the treatment group and 19 children were assigned to the control group, the groups being balanced according to dental caries experience. There was no evidence of pigmentation or discoloration of the teeth in either the treatment group or the control group.

*McDonald, R. E.: Management of rampant dental caries in children. Practical Dental Monographs, The Year Book Publishers, Chicago, Jan. 1961.*

There is no simple solution to the control of rampant dental caries, which is apparently not a distinct entity or a disease with an essentially different mechanism from that responsible for the usual destructive process. While the disease is most often seen in children, it can occur at any age. In most cases, it is probably the result of a series of factors acting to accelerate the normal dental caries process. The success of a control program is dependent, to a great extent, on the interest and co-operation of the patient. The control of rampant caries should not be looked on as a hopeless problem, as it once was, because today we have the diagnostic and preventive measures to control it. In the clinical management of rampant caries, the dentist's role in the program consists of



seeking the cause, correcting bad habits or deficiency states which may be contributing factors, restoring the teeth and, finally, making use of all of the available preventive and control measures.

During an informal discussion with a child and his parents, the dentist can often find a clue to the cause of the rampant caries. He can detect evidence of nervousness, possible family conflict, the pattern of eating habits, the patient's appreciation of oral and general health and the past experience with members of the dental profession, all of which may have a bearing on the etiology of the problem and its successful management. Such informal discussions in a private office, where everyone is more relaxed, will invariably provide the dentist with more information than the usual procedure of chairside questioning.

Weber, G., Banerjee, G., Bixler, D. and Ashmore, J.: *Role of enzymes in metabolic homeostasis. II. Depletion and restoration of avian liver carbohydrate metabolizing enzymes.* J. Nutrition 74:157, 1961.

The dietary depletion and restoration of avian hepatic enzymes involved in carbohydrate metabolism were studied. Enzyme activities were depleted by 7-day fasting and restoration was induced by a one-day refeeding period.

In chickens, 7-day fasting decreased glucose-6-phosphate dehydrogenase activity to zero, lactic dehydrogenase to 64 per cent and fructose 1, 6-diphosphatase, 6-phosphogluconate dehydrogenase, phosphoglucomutase and phosphohexoseisomerase activities to 39-48 per cent of normal fed values. On feeding, glucose-6-phosphate dehydrogenase increased to 300 per cent while all other enzyme activities showed increases from 21-51 per cent.

These results show that the various enzymes involved in glucose-6-phosphate metabolism show widely different behavior during nutritional depletion and restoration processes. Thus, the behavior of such avian enzymes basically resembles that of mammals under the same conditions.

Mercer, V. H., Muhler, J. C. and Bixler, D.: *Results of a survey concerning the status of preventive dentistry.* J. Dent. Ed. 25:242, 1961.

An analysis is presented of the answers given by almost 600 dentists in the state of Indiana to twelve questions concerned with preventive dentistry, a facet of practice which has not been emphasized sufficiently but which now

has gained prominence. In general the results show that the more recent graduates are greatly concerned with establishing a strong, productive, preventive practice.

Bixler, D.: *A study in experimental human dental caries test design and interpretation.* I.A.D.R. J. D. Res. 40:661, 1961.

The experimental testing of possible therapeutic agents for anticaries effectiveness in the human is a process involving many variables. This report deals with a human clinical dental caries study designed to test the effect of more than one examiner on caries findings when all examiners looked at the same subjects; none of these studies used control and test treatment groups. In this study, test and control groups were involved and the two examiners looked at a part of the subjects from each group. Both examiners employed the same methods for scoring caries and recording the results. In order to have the desired number of subjects, two military schools were selected with nearly identical environments. The children in each school were divided into two groups. Group I was given the non-fluoride dentifrice and Group II was given the stannous fluoride-containing dentifrice. Complete examinations for caries were performed in the same manner at the beginning of the test and after 8 months. The subjects using the stannous fluoride dentifrice had a significant reduction in the DMFT and DMFS increments. An analysis of variance applied to the data failed to show a significant interaction between the dentists and dentifrice. Thus, in this study, there was no significant difference in the ranking of the treatments by the examiners, even though DMF findings of each dentist were statistically different. One examiner judged larger DMF increments than did the other examiner.

Panuska, H. J., Gorlin, R. J., Bearman, J. E. and Mitchell, D. F.: *The effect of anti-convulsant drugs upon the gingiva—a series of analyses of 1048 patients. II.* J. Perio. 32:15, 1961.

This represents a continuation of a paper published in part in the same periodical during 1960. 1048 patients in a hospital for epileptics in Minnesota were studied clinically. Gingival hyperplasia in patients receiving Dilantin, Phenobarbital, Mesantoin, bromides, Mebarol, Hibicon, and Tridione was studied through the use of a specially developed hyperplasia index. Dilantin was by far the most frequently used drug. Many correlations concerning dosage, drug, hirsutism and others were attempted.



Boyd, J. B., Jr. and Mitchell, D. F.: *Reaction of subcutaneous connective tissue of rats to implanted dental cements.* J. Pros. Dent. 11:174, 1961.

Nineteen dental cements were implanted in the subcutaneous connective tissue of 57 rats. The inflammatory reaction resulting after 2, 16 and 32 days was studied clinically and microscopically around the material. The zinc phosphate cements produced a mild to moderate response. When these cements had additions of silver, copper salts, antibiotics and silicate cements, a severe inflammatory response resulted. The acrylic resin cements produced an early moderate to severe response but the later responses were moderate to mild. Certain correlations were detected between these results and those obtained by others using similar materials and the teeth of human beings and experimental animals.

Fahmy, H., Rogers, W. E. and Mitchell, D. F.: *Effects of hypervitaminosis D on the periodontium of the hamster.* J. D. Rec. 40:870, 1961.

Excessive Vitamin D markedly modified the periodontal bone, femoral bones and kidneys of animals which were given 16 injections totaling 80,000 U.S.P. units over a 56-day experimental period. On the other hand, periodontal tissue recession was not a prominent factor.

Moon, D. G. and Mitchell, D. F.: *An evaluation of a commercial protective mouthpiece for football players.* J.A.D.A. 62:568, 1961.

The "Feather-bite" mouthpiece was tested on 80 members of the varsity squads of two Indianapolis high schools. The control group, composed of 240 similar players from other schools wore no mouthpiece for one football season. 25 injuries were reported in the control group and none among the experimental group. There were complaints of bulk of the mouthpiece and only 40 per cent of the players wore it consistently for the entire season. It was concluded that the amount of protection afforded was satisfactory but that the bulkiness, particularly in the anterior segment, should be reduced.

Mitchell, D. F.: *Pulp reaction to commonly used capping materials.* J. Den. Children 2nd Quarter, 150, 1961.

A description of a promising screening method for testing reaction of the dermis of the rat to implanted pulp capping materials was given. On the basis of reactions obtained under such circumstances and on the basis of previous

experimental studies by others using human being and animal teeth, both calcium hydroxide mixed with water or methylcellulose, and zinc oxide with eugenol, were recommended for vital pulp therapy. The difficulties encountered in studying the pulp reaction to such techniques were stressed.

Chaudhry, A. P., Robinovitch, M. R., Mitchell, D. F. and Vickers, R. A.: *Chondrogenic tumors of the jaws.* Am. J. Surg. 102:403, 1961.

36 cases of chondrosarcoma reported in the literature were compared with 18 cases of benign cartilaginous tumors. The difficulty in differentiating the benign and malignant chondrogenic tumors was studied. They occur almost equally in the maxilla and mandible. The chondrosarcomas of the jaws appeared to offer a more serious prognosis than osteogenic sarcomas, and radical surgical treatment appeared to be indicated. Even when benign, the chondrogenic tumors were locally invasive.

Mitchell, D. F.: Chapter 17 in "Review of Dentistry", edited by Dr. M. K. Hine, St. Louis, C. V. Mosby Co., 1961.

This chapter on oral medicine was revised from that written by a different author in an earlier edition to aid the student or practitioner who wishes to review the subject for state board examinations.

Phillips, R. W.: Chapter 13 in "A Comprehensive Review of Dentistry" edited by Dr. Vincent R. Trapozzano, Philadelphia, W. B. Saunders Co., 1961 and Phillips, R. W.: Chapter 9 in "Review of Dentistry" edited by Dr. M. K. Hine, St. Louis, C. V. Mosby Co., 1961.

Definitions of all pertinent physical and mechanical properties are included along with basic and technical information regarding the various dental materials themselves.

Phillips, R. W.: Chapter 8 in "The Dentist and His Assistant", edited by Dr. Shailer Peterson, St. Louis, C. V. Mosby Co., 1961.

The various conditions to which dental materials are subjected in the oral cavity are discussed along with the importance of proper manipulation to secure optimum physical and chemical properties. Some basic information regarding each of the materials is included with the detailed discussions of proper manipulative technics for amalgam, impression materials, gypsum products, cements and resins. Casting procedures and model pouring are also discussed.



Norman, R. D., Platt, J. R., Phillips, R. W. and Swartz, M. L.: *Additional studies on fluoride uptake by enamel from certain dental materials.* J. D. Res. 40:529, 1961.

The fluorine uptake by intact enamel surfaces from certain dental materials has been studied. These data were correlated with those found in a previous investigation using powdered enamel, as well as with studies on enamel solubility as it is affected by various materials. The results were as follows: Most of the materials tested produced a measurable change in the fluorine content of intact enamel. Generally, the data from powdered enamel and intact enamel were in agreement. Copalite had no effect on the fluorine uptake from resins or from a zinc oxide containing 2 per cent sodium fluoride, but the varnish did reduce the effectiveness of the other fluoride-containing materials. A definite relationship was found between fluoride change and acid solubility of intact enamel.

Nadal, R., Phillips, R. W. and Swartz, M. L.: *Clinical investigation on the relation of mercury to the amalgam restoration, I.* J.A. D.A. 63:24, 1961.

Two hundred and fifty-seven amalgam restorations were placed in standardized cavity preparations by three different technics which produced amalgam restorations of three widely different mercury contents and hence, widely different sets of physical properties. These restorations were examined 24 hours after insertion and at three-month intervals over a one-year period. Observations were:

1. No failures due to flow or dimensional change were observed, even when the mercury content was approximately 62 per cent.

2. During the one-year period of observation only one case of isthmus fracture was observed even though many of the restorations were purposely left in high occlusal relationship and one-third of them had a 24-hour compressive strength of only 13,000 p.s.i.

3. Some marginal deterioration was noted in restorations placed by all technics; however, both the number and the severity of marginal failures increased as the residual mercury content of the restorations increased.

4. Surface roughness and general degradation were manifested by many of the restorations that contained 58 per cent mercury, and there was further increase in both the incidence and the degree of degradation in the groups of restorations containing 62 per cent mercury.

5. No correlation was observed between the amount of mercury in the final restoration and the degree or rate of tarnish and corrosion.

Nadal, R., Phillips, R. W. and Swartz, M. L.: *Clinical investigation on the relation of mercury to the amalgam restoration, II.* J.A. D.A. 63:51, 1961.

Two hundred and fifty-seven amalgam restorations were placed in cavity preparations, designed to provide extra bulk in the isthmus region. Three different manipulative procedures were employed in order to produce finished restorations of three different mercury contents (49 per cent, 58 per cent and 62 per cent), and thus restorations with three sets of physical properties. The behavior of these restorations was observed over a two-year period.

1. No failures that could be attributed to either flow or dimensional change were detected in restorations placed by any of the three technics in either cavity preparation.

2. One instance of gross isthmus fracture was observed during the first year with a large cavity. No other fractures were observed in this group of restorations. Seven restorations in small cavities fractured. Five of the fractures occurred early (24 hours). These fractures appeared to be the result of severe traumatic occlusion and recurred even when the technic producing the strongest amalgam was used for replacement. After adjustment of the occlusion, fracture did not recur, even with the weakest amalgam.

3. The results indicate a definite relation between marginal breakdown and the mercury content of the restoration. The most severe marginal deterioration was observed among restorations having the highest mercury content. Reduction of the cavity size resulted in a decrease in the incidence and degree of this type of failure.

4. The restorations that contained 58 and 62 per cent mercury exhibited surface roughness which was more severe in the higher mercury group. The incidence of surface roughness was lower in restorations placed in the small cavity than in the large.

5. There was no correlation between the residual mercury content of the restoration and the degree or the rate of tarnish or corrosion.

Phillips, R. W.: *Analysis of certain recent pertinent research in the field of dental materials.* Inter. D. J. 11:154, 1961.

Analysis of certain recent research in the field of dental materials would indicate the following trends.

1. Continuing emphasis will be placed upon marginal leakage around restorative materials.



The exact clinical significance of this phenomenon is not yet known but the data do indicate a difference in the sealing ability of various materials and, even more, the variations obtained between individual operators handling the same material.

2. In spite of certain claims, no material has yet been developed which actually bonds chemically to tooth tissue.

3. With the marked increase in new products being introduced, there will be accelerated interest in and need for biological evaluation of materials. The implantation of the specimen in the connective tissue of the rat holds special promise.

4. There is good evidence that greater concern must be given to the effect of dental materials and instrumentation upon the hard tooth structures. While the silicate cement actually increases the resistance of enamel to organic acids, other materials such as zinc phosphate cement, by removal of fluorine, may slightly decrease enamel resistance.

5. There will be ever-increasing experimentation in the use of zinc oxide-eugenol as a permanent cementing material. Modification in physical properties, especially strength, may be anticipated by the careful addition of E.B.A., polystyrene and silica in the proper relationship.

6. Although the exact value of cavity varnishes in reducing postoperative sensitivity has not been established, there are now data indicating that they reduce the magnitude of marginal leakage with some restorative materials and may also reduce dentin permeability to certain agents.

7. Reversible hydrocolloid, the polysulfide polymer and silicone rubber impression materials are all of comparable accuracy. The alginate does not reproduce intricate marginal or surface detail as well. Shelf life of the silicones still remains a real problem.

8. There is much yet to be learned about the small casting, especially distortion within the mold during the setting, hygroscopic and thermal expansion of the investment. It is quite possible that an entirely different type of investment may eventually evolve to minimize certain of those inherent variables.

9. Emphasis on research with the amalgam restoration is being placed on techniques designed to minimize the final mercury content. The exact relationship of mercury to the behavior of the clinical restoration has been demonstrated.

Phillips, R. W.: *Report of the Committee on Scientific Investigation of the American Academy of Restorative Dentistry*. J. Pros. Dent. 11:552, 1961.

The year 1960 saw marked progress in the penetration of barriers, leading to an understanding of the mechanisms of dental caries, calculus formation, and the muscle-occlusion relationship. In particular, a trend noted in recent years to relate the mechanical and physical characteristics of materials, instrumentation, and treatment procedures to the entire oral environment continues to gain momentum. The completion of the report by the research committee of the Commission on the Survey of Dentistry in the United States has provided a valuable yardstick by which dentistry in the future may measure its progress and will be able to determine how well it has met the research responsibilities which it now faces.

Phillips, R. W. and Love, D. R.: *The effect of certain additive agents on the physical properties of zinc oxide-eugenol mixtures*. J. D. Res. 40:294, 1961.

A study was made on the effect of selected additive agents upon certain properties of zinc oxide-eugenol.

Addition of o-ethoxybenzoic acid (EBA), if in approximately equal parts with eugenol, produced significant increases in compressive strength. It simultaneously increased solubility and decreased the setting time. Solubility also increased slightly by the addition of silica and zinc acetate. Addition of polystyrene was more effective in increasing the strength when present in mixtures containing EBA.

Zinc oxide produced from the thermal decomposition of zinc carbonate did not increase the strength of the mixtures studied but did decrease the setting time and tackiness of the mix.

Although not markedly altering strength, the addition of fused silica improved the handling characteristics of the mixtures when in a concentration of at least 10 per cent in the powder. Substitution of methyl methacrylate for polystyrene increased the stability of the solution and had an effect comparable to the polystyrene on strength and solubility. Inflammatory reactions in the connective tissue of the rat were mild for all mixtures tested.

Swartz, M. L. and Phillips, R. W.: *In vitro studies on the marginal leakage of restorative materials*. J.A.D.A. 62:16, 1961.

The relative sealing abilities of six different restorative materials placed in extracted teeth



by different technics were determined on the basis of the marginal permeability to  $\text{Ca}^{45}$ .

The margins of 24-hour-old amalgam restorations were readily penetrated by  $\text{Ca}^{45}$ , but leakage diminished with aging of the restoration. Cavity varnishes appeared to improve the marginal seal of these restorations. Some leakage was observed with all silicate and zinc phosphate cement restorations. There was no detected change in the adaptation six months after placement. There was considerable sorption of the isotope by the materials.

The use of the recommended cavity liner improved the adaptation of resin restorations. Leakage increased when the restorations were subjected to thermal changes and the magnitude appeared to be directly related to the temperature differentials used.

These data compare favorably with those obtained in comparable tests made with in vivo restorations. Thus the use of such in vitro test procedures to obtain further information regarding the relative adaptation of other materials placed by various technics is strongly suggested.

Henry, R. W. and Phillips, R. W.: *Influence of particle size of stone on surface detail of casts.* J. Pros. Dent. 11:169, 1961.

The influence of the particle size of artificial stone upon reproduction of surface detail has been studied. Although none of the experimental products tested routinely reproduced all of the intimate detail present in the impressions, the reproducibility was improved when the particle size of the stone was reduced. However, factors other than particle size influence surface reproduction of stone cases poured in elastic impression materials.

Phillips, R. W., Gilmore, H. W., Swartz, M. L. and Schenker, S. I.: *Adaptation of restorations in vivo as assessed by  $\text{Ca}^{45}$ .* J.A.D.A. 62:23, 1961.

A preliminary study has been made of the adaptation of some of the common restorative materials after varying periods of service in the mouths of humans and dogs. Adaptation was studied by the use of  $\text{Ca}^{45}$ . For the most part the results obtained in the two phases of the study were comparable.

1. Initially the margins of amalgam restorations were readily penetrated by the isotope, but leakage appeared to diminish as the restoration aged. The use of a cavity varnish apparently improved the initial sealing ability of amalgam.

2. The behavior of silicate restorations was variable. Some specimens exhibited gross pene-

tration of the margins whereas less ingress was noted with others. The surface of the material was permeated by the isotope.

3. Some leakage was observed with zinc phosphate cement, but there appeared to be less infiltration around older restorations.

4. The resin materials effected a relatively good seal of the cavity over the short period involved in this experiment.

Phillips, R. D.: *New dental materials and techniques.* Certified Dental Technicians Manual Vol. 1, No. 6, 1961.

Research in the field of dental materials which is of mutual interest to the dentist and technician continues to increase. Some of the more significant developments are:

1. The rubber base impression materials compare favorably with the reversible hydrocolloids in accuracy. The alginate impression does not reproduce sharp detail as readily and the die material itself does not always reproduce all of the detail present in the impression itself. The electro-plated die is superior from this standpoint. For maximum results with all the elastic impression materials, the cast should be poured within one hour.

2. The setting and hygroscopic expansion of the investment produce some distortion of the wax pattern. This variable, as well as the uneven thermal expansion, accounts for some of the previously unrecognized variations in dental casting.

3. Porosities in dental castings have now been classified. One of the most common is that of back pressure from the gases in the mold and can be minimized by placement of the pattern close to end of ring, use of adequate casting pressure and a flaring sprue at the point of attachment to the pattern.

4. The fused-to-metal porcelain veneer gains in popularity. Various systems are being employed to achieve the unique bonding and they vary in the esthetics achieved. Future research may minimize the prominent role now played by the experience of the ceramist.

5. The solder joint should not be given a hardening heat treatment. The exact gap distance between the parts to be soldered still remains controversial.

6. There is no evidence as yet to indicate any superiority between the different denture base resins or processing technics. The clinical significance of the small dimensional changes of the denture which occur in service are unknown.

7. Residual monomer is not a common cause for tissue irritation under the denture.



8. The cold-cured denture repair resins are satisfactory. However, the heavily plasticized temporary relining resins are contraindicated.

Phillips, R. W.: *The contributions of research in the physical sciences to the teaching and practice of dentistry.* J. D. Education 25:78, 1961.

This paper reviews the contributions of the physical sciences to the progress of dentistry. Examples of contributions such as electromicroscopy, labeled isotopes and physical chemistry technology are used to illustrate their influence on present dental technics and theory. It is emphasized that the practice of dentistry today embodies multiple disciplines and the contributions of all of the basic sciences cannot be minimized by either the research worker or the dentist.

Henry, R. W. and Phillips, R. W.: *Reproducing surface detail with electroplated impressions.* D. Progress. 2:33, 1961.

Since the advent of the polysulfide polymer impression materials, there has been increasing interest in dies made from electroplated impressions. Tests to determine the effect of electroplating on the reproduction of surface detail were undertaken, using a steel master die with a pattern of Knoop indentations of graduated size. Impressions were taken of the master die with wax, compound, and rubber materials. Stone dies were cast in six impressions in each material. Another six impressions of each material were silver-plated, and plated stone dies were made from these. An additional six impressions of each of the wax and compound materials were copper-plated, and plated stone dies were made from these impressions. Techniques are described. Comparisons showed optimum surface reproduction from copper-plated compound impressions and from silver-plated polysulfide polymer impressions.

Ping, R. S. and Redish, C. H.: *Dextro propoxyphene, a new non-narcotic analgesic.* J. Ind. S. D. A. 40:90, 1961.

The management of pain resulting from dental pathology or dental procedures is a most important aspect in the practice of dentistry. A drug that will eliminate pain, yet has a minimum of undesirable side effects has recently been tested clinically by the authors.

The clinical evaluation of dextro propoxyphene was done by the double blind method. The drugs were not disclosed until the conclusion of the experiment, and all the medications were similarly packaged. The drug was tested against two popular preparations containing codeine as well as against a placebo.

Dextro propoxyphene was found to have analgesic properties equal to codeine when given orally. Chi square values and percentage results were reported. It is neither addicting nor narcotic in nature. Increasing tolerance to the drug over a period of time was not observed and side effects were minimal. This drug shows promise of considerable value to the practicing dentist.

Shafer, W. G.: *Effect of Dilantin Sodium analogues on cell proliferation in tissue culture.* Pros. Soc. Exp. Biol. and Med. 106:-205, 1961.

Several chemical analogues and chemically related compounds of Dilantin Sodium have been used to study and clarify the cell stimulatory effects of this compound. Two analogues (1 allyl, 5 phenyl hydantoinate and 5 methyl, 5 phenyl hydantoinate) induce stimulation of fibroblast-like cell proliferation while two other analogues (1 propyl, 5 phenyl hydantoinate and 3 methyl, 5.5 diphenyl hydantoinate) were completely ineffective. None of the other structurally related compounds tested (barbital sodium, urea, uric acid, alloxan, allantoin or hydantoin) produced any stimulation of cell proliferation.

Shafer, W. G. and Waldron, C. A.: *A clinical and histopathologic study of oral leukoplakia.* Surg. Gyn. & Obstetrics 112:411, 1961.

1. Confusion regarding the clinical and microscopic use of the term leukoplakia has been discussed as well as the implication of the term premalignancy. The literature on oral leukoplakia also has been reviewed, particularly that dealing with clinicopathologic correlations.

2. All cases of leukoplakia or oral white lesions in the departments of oral pathology, School of Dentistry at Indiana University and Emory University have been reviewed. Data have been presented regarding age, sex, sites of occurrence, and microscopic findings in 332 specimens from 286 patients.

3. The vast majority of cases of clinical leukoplakia are perfectly benign histologically and, at the time of examination at least, exhibit no premalignant features.

4. A smaller but significant number of lesions presenting as clinical leukoplakia were found to be invasive carcinoma on histologic examination.

5. We support the proposal made by others that the term leukoplakia be discontinued as a microscopic diagnosis, be replaced by microscopic terms which can be defined and on which there is general agreement and that the term be reserved for the clinical description of a white lesion on the mucous membrane.



Oliver, R. T., McKenna, W. F. and Shafer, W. G.: *Hemangio-ameloblastoma: report of case. J. Oral Surg., Anesth. & Hosp. D. Serv.* 19:245, 1961.

A case is reported in which an extremely rare variant of the ameloblastoma, a hemangio-ameloblastoma, was found in a young woman. After surgical removal, the patient was advised of the potential seriousness of her lesion and instructed to return periodically for roentgenographic and visual examination.

Although recurrence is a possibility with this lesion, it was not considered that there was sufficient indication for radical jaw resection at this time.

Burstone, C. J. and Shafer, W. G.: *The effect of thyroid function on sutural osteogenesis in the rat. Arch. Oral Biol.* 5:27, 1961.

A method for artificially expanding the premaxillary suture of the rat was applied to investigation of the effects of thyroid dysfunction on osteogenesis. Three groups, hypothyroid and control, were compared as to sutural activity. Variation was evident in the degree of separation at the premaxillary suture. However, no consistent differences among groups were found. No differences were noted in the orientation of the collagen fibers of the vascularity of the connective tissue between experimental and control groups. Propylthiouracil-treated animals showed a more profound tissue reaction at the site of suture separation than either control or hyperthyroid animals. The increased sutural activity associated with the hypothyroid groups was characterized by a greater thickness of osteoid along the inner suture faces, more prominent osteophyte formation, greater osteoblastic activity and an increased cellularity in the connective tissue between the two plates of bone.

Standish, S. M. and Shafer, W. G.: *Gingival reparative granulomas in children. J. Oral Surg. Anesth. & Hosp. D. Serv.* 19:367, 1961.

A series of pyogenic granulomas (30 cases) and peripheral giant cell granulomas (14 cases) occurring in children up to 15 years of age were compared according to incidence, sex predilection, age and race of the patient, duration, location, relation to trauma, clinical appearance and histologic features. The following observations were made: The pyogenic granulomas all occurred in the 8 to 15-year age range with the exception of two cases occurring at 6 and 15 months of age. The peripheral giant cell reparative granulomas

were grouped in a slightly younger age group, 5 to 12 years, with the exception of one lesion in a 3-year-old girl. No definite sex predilection was noted either in cases of pyogenic granuloma (13 boys, 17 girls) or giant cell granuloma (6 boys, 8 girls). Both lesions characteristically exhibit rapid growth until a certain size is reached and present a similar clinical appearance. Although they are frequently associated with loss of the deciduous teeth, eruption of permanent teeth, physical trauma or other irrational stimuli, a definite correlation could not be established. Histologic examination is necessary for a definitive diagnosis.

Standish, S. M. and Shafer, W. G.: *Effects of podophyllin on epithelial tissues. Arch. Path.* 72:166, 1961.

References to the clinical use of podophyllin for a wide variety of dermatologic and gynecologic lesions (e.g., senile keratosis, condyloma acuminatum, molluscum contagiosum, etc.) suggested its possible use for hyperkeratotic intra-oral lesions. A series of studies were designed to test the effects of topical podophyllin on oral mucosa, skin and cervical mucosa in intact and salivary gland duct-ligated rats and mice as well as on the cytologic features and growth properties of HeLa and BW1081 salivary gland tumor in vitro cell cultures. The topical application of podophyllin to oral mucous membrane of rats and mice produced cytologic alterations within 24 hours that were identical to the "podophyllin cell" described in human cervical mucosa. The tongue epithelium demonstrated more "podophyllin cells" than skin or cervical mucosa but did not otherwise differ histologically. In the present experiment, no changes were observed at 5 days following the last of three treatments indicating that no permanent alterations occur in squamous epithelium following the use of podophyllin topically. Bizarre nuclear aberrations were noted in BW1081 salivary gland tumor and HeLa cell cultures inoculated with podophyllin and growth rates were inhibited.

Starkey, Paul: *Instructions to parents for brushing the child's teeth. J. Dent. Children* 1st Quarter, 42, 1961.

This paper describes a technique which a dentist may teach parents of very young children to use in brushing the child's teeth and to make certain recommendations related to the act.

Illustrations are included indicating the proper approach for brushing the child's teeth. The child stands in front and leans her head



back against the parent. The parent uses the left lower arm to "cradle" the head for support and stabilization, while the fingers of the left hand are used to retract the lip, leaving the right hand free to do the brushing. In this position, the labial and lingual surfaces of the lower anteriors can be brushed. Other photographs are included illustrating the proper approach for brushing the other remaining surfaces of the teeth.

A toothbrush of medium stiffness is recommended, as well as a stannous-fluoride-containing dentifrice. It is suggested that the teeth be brushed after each time the child eats, and that the "scrubbing" method be used.

It is felt that if a dentist teaches the parent to brush the child's teeth, the child will benefit from the esthetic effect, from the stimulating effect on the gingival tissues and from the possible reduction in dental caries activity, during this period when he, himself, is not yet able to brush efficiently. It is further suggested that this is an excellent way to instill in the child's mind the importance of caring for his teeth and that when he is old enough, he will continue the habit himself.

*Starkey, Paul and Matlock, J. F.: A technique for taking maxillary and mandibular anterior radiographs for the preschool child. J. Indpls. Dist. D. S. 9, 1961.*

The paper presents a particular technique for obtaining a radiograph of the maxillary and mandibular anterior teeth in the preschool child.

In obtaining the maxillary anterior film, the patient's occlusal plane is parallel to the floor and the sagittal plane is perpendicular to the floor. The #2 periapical film is placed so that its long axis is from left to right, and the sagittal plane bisects the film. The central ray is directed to the apices of the central incisors, 1/2" above the tip of the nose through the midline.

In the mandibular anterior technique, the film placement is the same as above, with the exception that the emulsion side, or the pebbled side, faces the floor. The patient's head is then tilted rather sharply backward and the central ray is directed perpendicular to the line bisecting the angle formed by the plane of the film and the plane of the long axis of the teeth.

The techniques described and illustrated involve practically no discomfort for the child. It is not necessary for the child to hold the film with the fingers and, therefore, there is

more positive control of the film. Since the arch of the preschool child is so much smaller, it is possible to obtain these single films with approximately 25 per cent of the exposure time required for the usual three small size periapical films of each region.

*Starkey, Paul: Infection following ectopic eruption of first permanent molars: case report. J. Dent. Children 4th Quarter, 1961.*

A mesio-occlusal alloy restoration was placed in an upper left first permanent molar and a D.O. alloy restoration in the adjacent second primary molar. The caries and restorations did not involve the pulp. Twenty-two days later, cellulitis developed in the area and both teeth became somewhat mobile with evidence of some bony destruction in the bifurcation of the primary molar. The primary molar was extracted and an accessory root canal noted on the distal aspect of the root about midway between the bifurcation and the cemento-enamel junction. A fine wire from a wire recording spool was inserted into the opening, and the dissociated tooth radiographed. It was then verified by this means that this was in fact an accessory root canal.

It is theorized that the ectopically erupting first permanent molar was responsible for the initiation of resorption of the distal buccal root of the maxillary second primary molar, producing a break in the tissue attachment and allowing bacterial inoculation of the pulp via the accessory root canal. The tooth continued to erupt, slipped by the distal contour of the second primary molar into its normal position in the arch and remained asymptomatic. The pulp of the second primary molar underwent degenerative changes and some time later, and only coincidental with the placement of the amalgam restoration, became putrescent, with the resulting cellulitis.

*Swenson, H. M.: Modern concepts of treatment of periodontal disease. J. Calif. S. D. A. 37:175, 1961.*

In the proper evaluation of the patient with periodontal disease, the recognition, elimination or reduction of etiology is necessary. The ability of the dentist in this field will determine in a large measure the success of the treatment. While there are many contributing factors to periodontal disease the most common is local irritation. This local irritation must be removed whether it be calculus, overhanging margins, food impaction, etc. Oral



habits, such as pencil biting or fingernail biting, can also place unusual forces upon the teeth contributing to a breakdown of the tissue. One must also consider the various occlusal neuroses such as night grinding, tooth clenching, and perhaps just "tooth doodling" with an isolated tooth that has poor occlusal relationship. Anatomical defects such as poorly formed crowns, either by nature or by the dentist, may contribute to gingival injury, resulting in changes in the periodontium.

Since certain systemic influences adversely affect the metabolism of cells, consideration must be given to the systemic condition of the patient with periodontal disease. Good nutrition is essential for proper metabolism of cells. If nutrition is not optimal, this may contribute to the breakdown of the supporting structures. In the evaluation of the patient with periodontal disease, multiple etiologic factors may be present. It is most unlikely any one factor can bring about bone destruction and eventual loss of the teeth. The evaluation of the condition is made by the consideration of how the alteration of these factors will enhance the longevity of the teeth.

*Swenson, H. M. and Hansen, N. M.: The periodontist and cosmetic dentistry. J. Perio. 32:82, 1961.*

Cosmetics in periodontal care must require serious consideration. Satisfaction in this detail may be achieved through scaling or it may necessitate surgery or prosthesis. In some instances, multiple prosthetic applications may be necessary. The prosthesis may be of either a fixed or removable nature depending on the conditions present.

Good oral hygiene can be influenced greatly by the mental attitude of the patient. The person's sense of pride in his smile is a requisite in any restorative program. The ultimate cosmetic achievement of the periodontal case, therefore, may increase the possibility of success for the satisfaction that the patient now feels makes him more receptive to a thorough home-care program. By keeping this fact foremost in mind when planning the treatment, the periodontist can do much more than to simply help preserve the supporting structures of the teeth. This phase of periodontal treatment should enhance also his colleague's work who will perform the restorative phase of the patient's care. In effect, the cosmetic considerations and their achievement in periodontal therapy may be the deciding factor for successful treatment.

*Swieterman, R. P., Muhler, J. C. and Swenson, H. M.: The effect of highly concentrated solutions of stannous fluoride on human gingival tissue. J. Perio. 32:131, 1961.*

Patients with either normal or pathologically affected gingival tissues received topical applications of sodium chloride, sodium fluoride, stannous chloride, and stannous fluoride at concentrations ranging from 2 to 20 per cent. Gingival tissues were surgically removed immediately and in periods ranging to 28 days.

Gingival tissue treated with sodium chloride or sodium fluoride showed no gross or histologic changes when compared to untreated gingiva.

Patients who received stannous chloride or stannous fluoride all demonstrated a white, shiny, smooth coating of the gingiva, principally at the gingival crest. The concentration of stannous fluoride appeared to have no correlation with the amount of gross coating produced on the gingiva.

From this study no apparent harmful effects to the gingival tissues were observed from the use of stannous fluoride solutions up to and including concentrations of 20 per cent. This coating disappeared within 24 hours without incident. Clinical response of the gingiva to 20 per cent stannous fluoride solutions varied in intensity with the amount of inflammation present at the time of the initial treatment. Histologically, there was noted a deeper staining of the superficial epithelium which also was proportionate to the amount of inflammatory cells present in the subjacent connective tissue at the time of the initial treatment. Cell morphology was not changed by either the stannous fluoride or stannous chloride.

*Tchalian, V.: Maxillofacial prosthesis, a manual on materials and techniques. Texas University Press, 1961.*

This 65-page manual describes and illustrates in detail the impression technique for and the construction of an eye, nose and ear vinyl resin type prostheses.

Both clinical and laboratory procedures are presented in a well organized step-by-step method and liberally illustrated with over 40 photographs of excellent quality. Preceding the description of each procedure is a complete list of the instruments and materials needed. Briefly and concisely the subjects of selection of material, retention, and care of facial prostheses are discussed. A floor plan layout for a two-room maxillofacial prosthesis studio is also included.



Van Huysen, G.: *The microstructure of young dentine*. Arch. Oral Biol. 3:157, 1961.

A 20-micron thick undecalcified ground section of young unerupted permanent tooth dentine demonstrated peritubular rings of relative refringency known as "Becke" effect. The historadiographs of this dentine showed throughout most of the coronal dentine peritubular radiopaque images. This is indicative of peritubular calcification in young coronal dentine. The dentinal tubular in a 25-micron wide band of newly formed dentin about the pulp chamber does not show peritubular hypercalcification. Since the dentine used in this study was taken from an unerupted premolar tooth of a 10-year-old female, it was not effected by oral stimuli such as abrasion, attrition or caries. Therefore, the peritubular calcification noted throughout the greater portion of the dentine cannot be attributed to age changes or reaction to injury.

Mohammed, Y. R., Van Huysen, G. and Boyd, D. A.: *Filling base materials and the unexposed and exposed tooth pulp*. J. Pros. Dent. 11:503, 1961.

The purpose of this study was to examine histologic sections of the pulps of teeth of dogs 1 week after the insertion in deep cavities of filling bases consisting of commercial preparations containing, respectively, calcium hydroxide, zinc oxide-eugenol, and oxyphosphate of zinc cement.

Clinically undetected, microscopic pulp exposures occurred in some of these deep cavities, and if serial histologic sections had not been used, the actual exposures would have been undetected. Some of these clinically undetected pulp exposures admitted plastic restorative materials to the pulp. Bacteria could also gain access through such microscopic exposures.

The blood vessels of the odontoblastic layer are capillary in size and widely scattered so that relatively little, if any, hemorrhage or extravasation of blood occurred as a result of microscopic exposure.

In pulp exposures, calcium hydroxide paste was found to be the least irritating of the pulp-capping materials tested. Zinc oxide-eugenol paste was destructive in four cases but was not in one. It is believed that a potential irritant should not be used for pulp capping. Oxyphosphate of zinc cement caused severe pulp necrosis and is, therefore, contraindicated for use in deep cavities without a protective non-irritating base.

## DEAN HINE REPORTS

(Continued from page 10)

by Dr. P. G. C. Hunt, the first Dean of Indiana Dental College, who gave it to his son, Dean George Edwin Hunt. Since the initial on the letter opener matches that of the present Dean, the letter opener is still being used. However, it will be placed in a museum case as soon as one is available.

Mark Twain was once asked why he had so many books and so few bookcases. His answer was that it is difficult to borrow bookcases! We are in somewhat the same position; we have much museum material and are glad to get it but so far we have not been able to buy, borrow, beg or steal museum cases. We hope to get a series of such cases in the next few years to place in our halls to house our museum material.

It is pleasant to report that because of a grant from the United States Public Health Service, 14 undergraduate research fellowships and six graduate research fellowships have been established for this year. These students work evenings and free hours on research programs of their interest. Many of the projects underway will lead to significant publications.

As in the past, we shall be well represented at the annual meeting of the International Association for Dental Research and the American Association of Dental Schools in St. Louis. We are pleased to note that in the last five years Indiana rated in the first five institutions in the country in the number of research reports given at the I.A.D.R. and in most of these years we rated first.

Interest in the alumni activities in connection with the Chicago Midwinter Meeting continues to grow. Alumni should write on their calendar the following meetings which are held now annually:



1. Luncheon in conjunction with the Chicago Dental Society Midwinter meeting. This will probably be held on Monday noon hereafter. Alumni are also welcome and urged to visit the Alumni Headquarters Room in the Conrad Hilton Hotel.

2. The annual Homecoming Meeting which is held in Bloomington each fall. The date will vary from year to year but usually is early in October.

3. Their dental class reunion usually held in conjunction with the Indiana State Meeting which this year is the week of May 20. Many classes meet each year, although the older classes usually meet every 5th or 10th year. This year it is expected that the classes of 1912, 1922, 1932, 1942, 1952 and 1957 will meet. We shall be pleased to assist in every way we can to make arrangements for these reunions. Many classes have seen fit to make contributions to the dental school to assist in the purchase of special equipment and museum cases. Such gifts are of course much appreciated and help to enrich our educational program.

#### DENTAL HYGIENE

*(Continued from page 19)*

Dr. Nicklas in Indianapolis. Her husband is a senior dental student.

Wilhimena Res is practicing in Colorado.

Dr. and Mrs. (Sonia Bechaka) Elita Zapponi have a son and are now living at 90 Forest Grove Drive, Apt. 24, Westlake, Dale City, California.

Joyce Schenck is taking some courses on campus to complete degree requirements.

Patricia Barker was married to James H. Martin and is associated in practice

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As Kay Owens will be married in June, Dr. Robert Stetzel of Fort Wayne is looking for a dental hygienist.

Dr. and Mrs. (Sally Alcock) Edward Pfafflin are living at 3322 Knight Street, Dallas, Texas. Dr. Pfafflin has a residency in oral surgery and Sally is a clinical instructor in the Department of Dental Hygiene, Baylor University School of Dentistry. How does it look from the other side of the fence Sally?

Nancy Cunningham is planning to take the American Dental Hygienists' Association tour to the International Dental Congress in Cologne, Germany. She would like to hear from anyone who may be going.

Carolyn Gill Hayes is living on Highway 24 East, R. R. #4, Wabash, Indiana.

1961

Since graduation in June there have been three weddings in this class.

Carol Mager to Dr. James Hurst, D '61. As Dr. Hurst is with the Marine Corps in Japan, Carol is living with her parents in South Bend.

Sarah Perkins married Don Sheller and Charlotte Levay married Michael J. Gross. Both husbands are senior dental students.

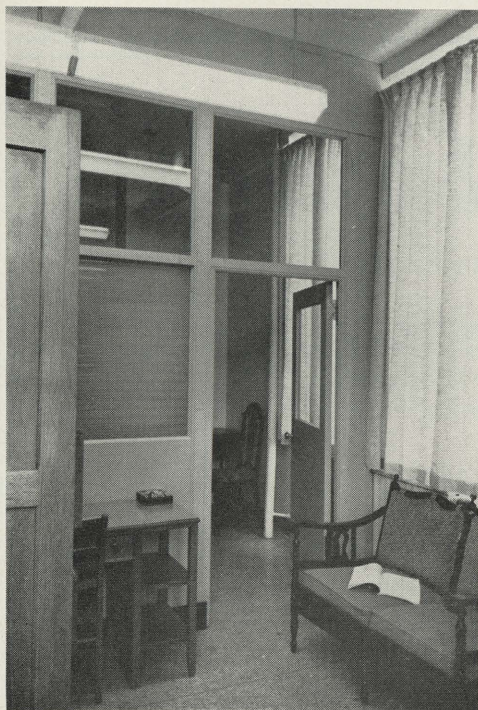
A Christmas present for Sheri and Stanley Abrams was a baby girl, Melissa born December 24th.

Ruth Hatcher Soetje is now living at 701 Conkright Street, Midland, Michigan. Her husband completed his graduate work in Bloomington and has accepted a position with the Dow Chemical Company.



President Wells converses with Dean Hine and Mr. Frank Jones during Fall Conference.





Entrance to new Conference Room in Library.

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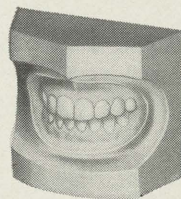
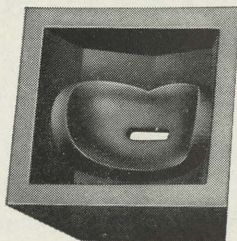
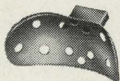
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