

Alumni Bulletin

INDIANA UNIVERSITY
SCHOOL OF DENTISTRY

AUGUST, 1961
INDIANAPOLIS, INDIANA

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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.

The New Addition

For some years it has been evident that Indiana University School of Dentistry should be enlarged in order to present a larger and more complete program of dental education for the residents of Indiana. Reasons may be outlined as follows:

1. The general population of Indiana is growing more rapidly than is the dental population. In 1940 the population was 1,896 to each dentist; in 1950 the population was 1,984 to each dentist; and in 1955 the population was 2,032 to each dentist. This compares with the national figures which are as follows: 1940, 1,865 per dentist; 1950, 1,727 per dentist; and in 1955, 1,667 per dentist. (Figures revised by American Dental Association May 1956.) Indiana University School of Dentistry has admitted capacity classes since 1950 so that it is obvious that in our present plant we cannot adequately train enough dentists to meet the needs of Indiana.

2. Indiana University School of Dentistry in recent years has not been able to accept all the residents of Indiana who desire to study dentistry. There were more applicants for 1956 of good quality than for several years, and according to all available statistics college enrollments are due to rise steadily in the immediate future.

3. The demand for dental specialties in Indiana continues to increase and it will be necessary for Indiana University to expand into the field of advanced training for orthodontists, pedodontists, periodontists, prosthodontists, oral surgeons, endodontists, etc.

4. With the completion of the Medical Science Building on the Indianapolis campus, it will be possible to take more students at the freshman level. However, in order to train the dental students adequately at the upper class level it will be necessary to have an enlarged dental building. The proposed enlargement to the dental school will increase the size

of the dental clinic so that more students can be assigned to treat patients. Added laboratory facilities for teaching dental techniques, a dental hygiene clinic, as well as increased quarters for graduate students, and research quarters. It is hoped that there will also be room for a dental teaching museum which is needed by the dental school.

5. The demand for dental hygiene education has increased so that we can no longer accept all the young ladies who desire to study dental hygiene. Also, the demand for the services of dental hygienists has increased so that many dentists are not able to employ them. It is impossible to increase the number of dental hygienists to be admitted in our present building without reducing the number of dental students.

After many years of planning the addition to the dental school has finally been completed and is now fully occupied. This addition cost approximately one and a half million dollars and makes available an additional floor space which is equal to approximately 60 per cent of the old dental school building. This space, plus that in the Basic Medical Science Building, gives Indiana University School of Dentistry physical facilities which are markedly superior to any they have ever had in both quantity and quality.

The spaces vacated by the departments occupying the new building have been remodeled so that every department in the dental school now has larger facilities than ever before.

Much of this issue of the Alumni Bulletin is devoted to a description of these new facilities and we will be looking forward to your visit.

We will have a formal dedication program in the early fall, which will be widely announced, and which we hope you will be able to attend.

M. K. Hine, Dean

Orthodontic Facilities

Charles J. Burstone

Increased facilities for teaching and research have now become available with the completion of a new orthodontic department in the south wing of the dental school.

The L-shaped clinic has nine specially designed cubicles for the treatment of orthodontic patients (Figure 1). Built-in cabinets and a movable Angle table afford ample storage and work space at each unit. In order to increase student efficiency in the fabrication of orthodontic appliances, each cubicle is supplied with its own orthodontic blowpipe and spot welder. A stress-relief oven and an anodic polisher are conveniently found on the north wall of the clinic.

The east wall houses a well equipped orthodontic laboratory. Each graduate student in orthodontics has an assigned lab bench which is available for both analytic procedures used in case analysis as well as appliance fabrication. Model

trimming and finishing are facilitated by a broad stainless steel sink area, two model trimmers and a vacuum spatulator.

A new Broadbent cephalometer has been installed in a special room immediately adjacent to the department. Dual X-ray heads allow frontal and lateral headplates to be taken without changing the position of the patient. The cephalometric equipment has been extensively used for both patient care and research. The cephalometric facilities have also been made available to dentists in the area who request cephalometric films for diagnostic purposes (Figure 2).

Just off of the main clinic, the tracing room is seen with its built-in tracing tables along three walls. Two of the view boxes have a variable control for adjusting the light level. The control of light level serves as a valuable aid in the visualization of obscure structures on the lateral and frontal headplates. A small table in the tracing room makes possible its use for seminars with small groups of students.



Figure 1: Orthodontic Clinic

One of the research projects currently pursued by the orthodontic department is the measurement of forces delivered by orthodontic appliances. The research office has been equipped with specially designed force and torque gauges which have been used in these studies (Figure 3). There is also found in the research section of the department, headplates which are in constant use for research and teaching purposes. Included in these files are serial records demonstrating normal growth and development, headplates of children with gross deformities, complete records of treated orthodontic cases in the post-retention period, and special soft tissue X-rays of the face.

The expanded facilities in orthodontics have enabled the department to increase its graduate enrollment to seven in a class. Furthermore, the tracing and demonstration rooms will prove most helpful in improving the quality of the undergraduate orthodontic program.

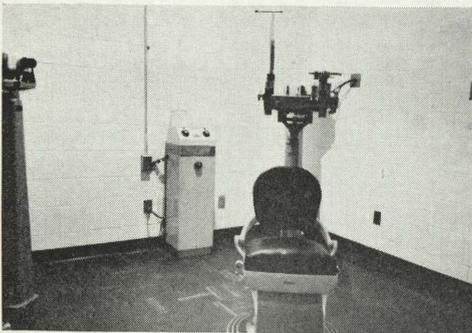


Figure 2: Broadbent Cephalometer

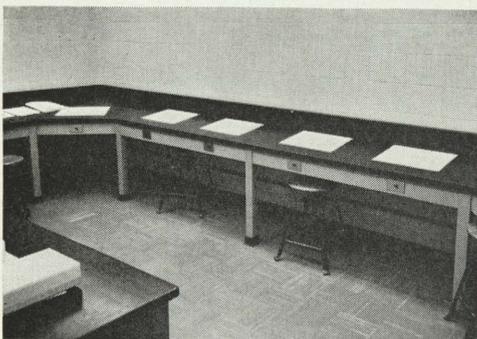


Figure 3: Research area—equipment for measuring orthodontic forces

The Complete Denture Department

L. Rush Bailey

In the Spring of 1961, the department of complete denture moved into its new home on the fourth floor of the new addition to the dental school. The fourth floor consists of the following: *Clinic, student laboratory, technicians and faculty laboratory, supply room, two operating rooms, television room*, four other rooms used as office and laboratory space. The facilities here are without doubt the best.

Clinic. This area occupies the south-east area of the fourth floor with windows along the east wall. Although the artificial fluorescent lighting is quite adequate for the entire area, the windows allow natural light for purposes of matching tooth shades. The view of the downtown area is unusually good, as evidenced by President Well's remark when visiting the clinic—"What a dazzling view of the Indianapolis Skyline". The clinic has eighteen operating areas, sixteen righthand units and two for portside operators. The working bench beside each chair and unit was especially designed. It has a space for the patient's coat to be hung on a hanger. There is a radiograph view box and gas and compressed air are on each bench. An electric outlet with a compound heater is available at each space. There is a stainless steel worktop and sink with hot and cold water. The students have a new aluminum instrument case which fits into the cabinets, thereby saving work space.

Student laboratory. This is a well equipped room with 23 work spaces, each space having a dental engine and a foot control. However, the foot controls turned out not to be foot controls at all, because we removed them from the floor and attached them to the right side of each work space and the student controls the speed by lateral knee pressure. This has three distinct advantages, the controls are always in the same place and they are

off the floor which makes cleaning the floor easier. It also prolongs the life of the controls. The model trimmer is new and has an automatic water control; when the electric motor is turned on the water flows, when the motor is turned off the flow of water stops. Also, there is a new Coe water bath and wax eliminator for student use.

Technician and faculty laboratory. In this room there are four individual work areas for our dental technician, faculty, and graduate students to use.

The Supply Room. This is located in one corner of the clinic and readily accessible for the student. Here appointments are made, and every student that signs up for a chair at a definite time, is assured a place in the clinic. This will benefit the student since he will need to budget his time and carefully plan his procedures. The supply room furnishes all the necessary materials for student use, loans out tooth mold guides and orders teeth.

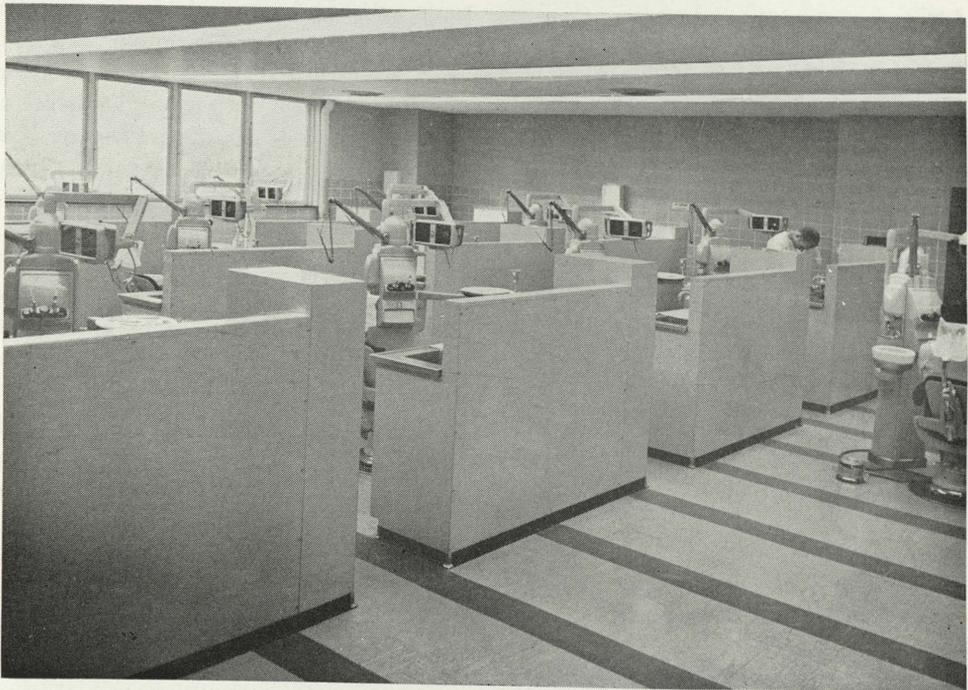
The two operatories are two completely

equipped dental offices. One is used by the complete denture department for special cases. The other is used by the oral and facial rehabilitation department.

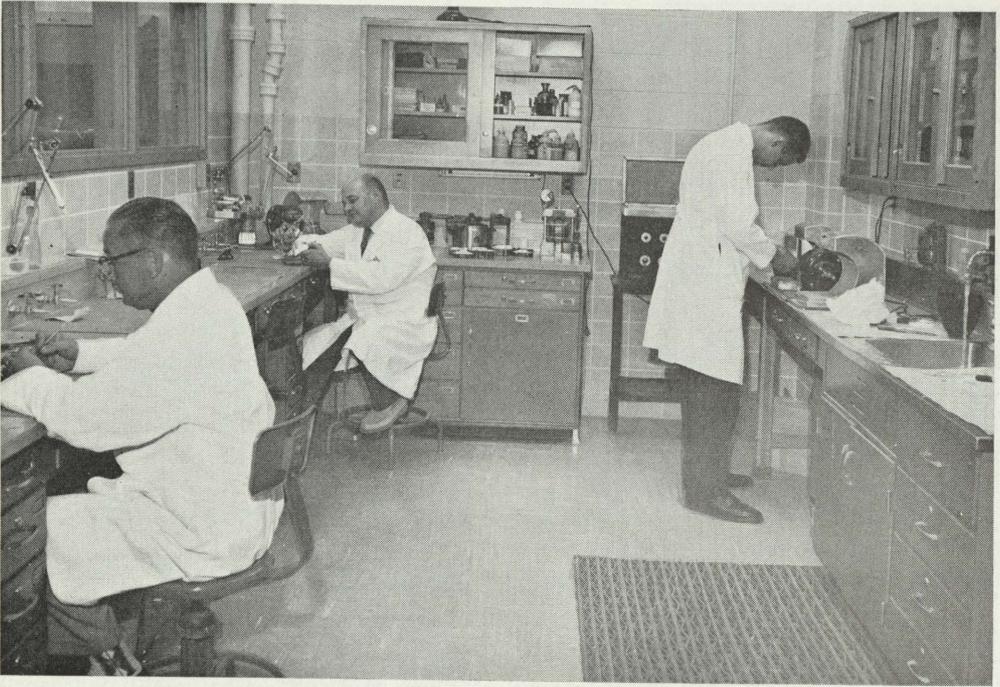
The television room is being equipped to provide television instruction and demonstrations for the dental student. It has a dental chair and unit, blackboard (or rather green chalk boards), projectors and permanent type projector screen. It will seat approximately seventy individuals. It has already been used for two postgraduate courses, one in orthodontics and the other in complete denture prosthodontics.

The department was designed for the convenience of everyone working—students, faculty, and staff. We hoped to make the students' work (or should we say learning) more enjoyable. At the same time it is hoped the staff members can teach more efficiently.

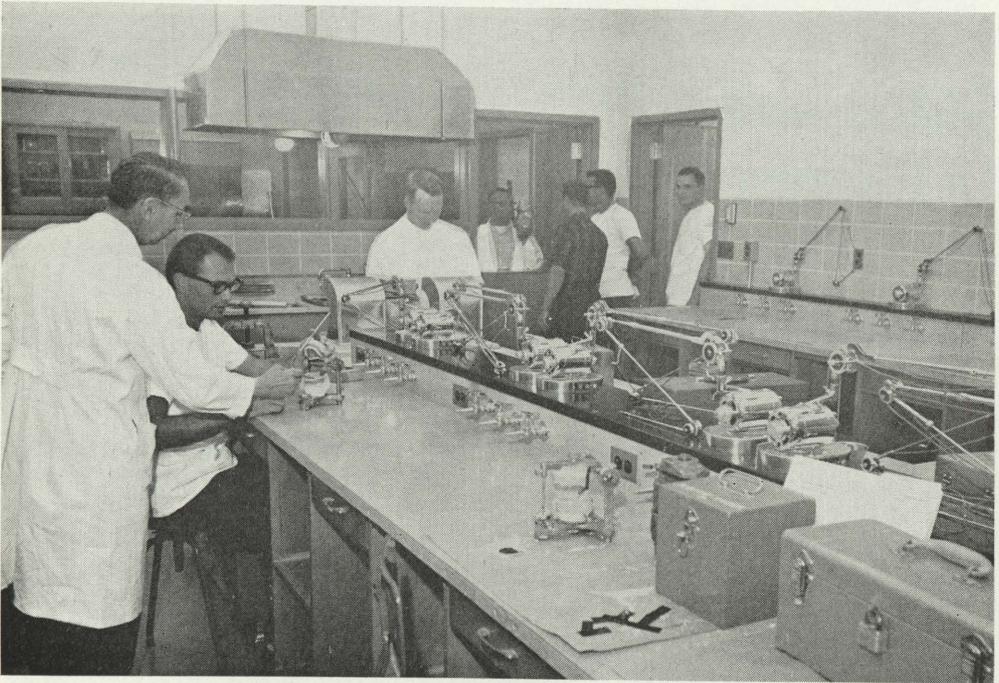
We are rightly proud of our complete denture facilities, and we sincerely wish all the Alumni and our friends can visit us. Come often.



View of prosthetic clinic, containing 18 units.



Technician and faculty laboratory. (Left to right) Mr. Robert Klem, technician; Dr. Joe White, assistant professor, and Mr. Edwin Calkins, technician.



Prosthetic student laboratory, showing some of the 23 work spaces. Technicians and faculty laboratory may be seen at the rear. Dr. L. Rush Bailey, left, instructs student.

Crown and Bridge and Partial Denture Department

John F. Johnston

The crown and bridge and partial denture department is now occupying the third floor of the new wing of the dental building. This area may be approached in three ways:

First, through the swinging doors from the middle of the south wall of the old clinic, by a stairway which is on the east side of the new wing, or by an elevator which is directly opposite the stairway.

As you approach from the old clinic, you will see 28 areas for undergraduate clinical students, each supplied with a cabinet and bench in which there are facilities for storing the patients' coats, an X-ray reading light, a sink, a waste drawer, and a receptacle for the new instrument cases. All of the chairs and units are from the S. S. White Company, and each unit is equipped with a Ritter dental light.

About midway on the west side of this clinic is a desk and also filing cabinets for Mrs. Smith, the receptionist; and to the right, past her desk, is a corridor (known as "Death Row") which leads to the offices of the Chairman of the department and his secretary.

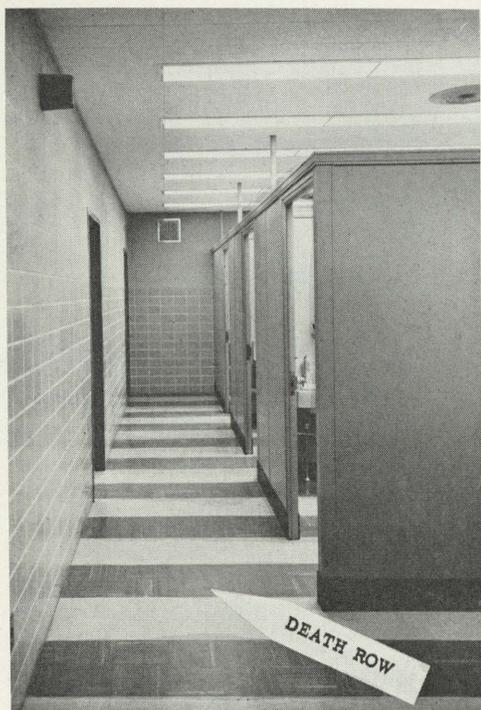
On the east side of the corridor leading back to the department Chairman's office will be found three fully equipped operating rooms to be used by members of the staff working on special cases, or by graduate or postgraduate students doing special assignments. Each of these offices is equipped with an air rotor, as well as conventional handpieces.

South of these offices is a room designed originally as a small amphitheater-type demonstration room.

On beyond this is the new ceramics laboratory. This is being used by Dr. George Mumford, who joined the crown and bridge and the dental materials staffs this year for research and for teaching courses in jacket crowns, porcelain inlays, and bonded porcelain veneers.



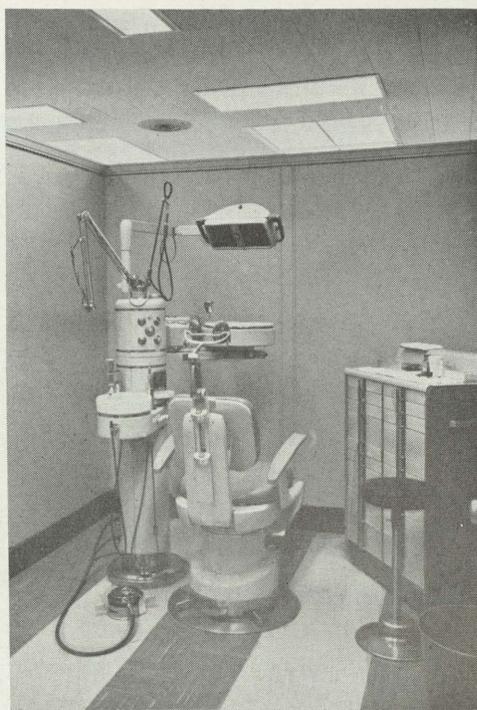
Crown and bridge clinic area, with 28 units.



Corridor leading to secretary and departmental offices.

On through this room is the laboratory area over which Mr. Calvin Kernodle presides. Another technician works with him. In this laboratory there is space which will be used for the new training course for dental laboratory technicians. Beginning in September, the first class will start; and in it there will be two technician trainees, who have enrolled for approximately twenty-two months. Their training will be limited to crown, bridge, and partial denture techniques. One corner of this laboratory has been reserved for chrome-cobalt equipment which will be purchased later.

Proceeding south, the visitor will find the new clinical laboratory for students who are working either in crown and bridge or partial denture. It has bench space for approximately twenty-five students; and, in addition to this, an area has been reserved for staining and glazing facings. Probably a section of the laboratory will be reserved for graduate students, or for the training of a larger class of technicians.



One of the three individual operating rooms for special staff and graduate cases.

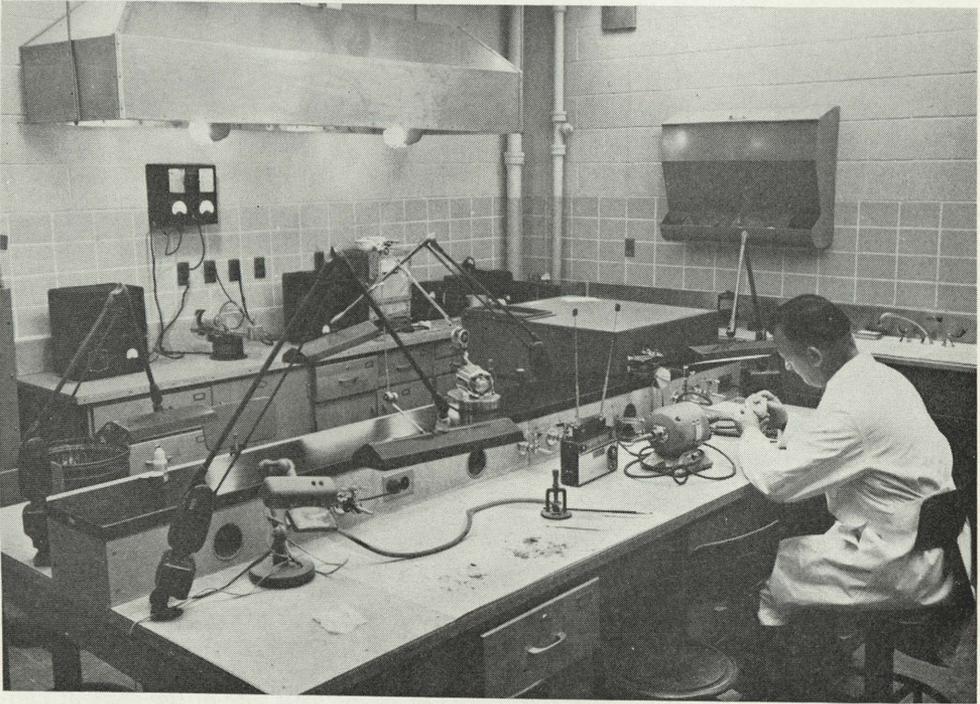
Off of the west side of the student clinical area are two offices, one being occupied by Dr. Bogan, the other by Dr. Dykema. These offices are situated in such a way that they are readily accessible to the student.

At the north end of the clinic is a window opening into the dispensing area; and, with the exception of impression material, all supplies are now dispensed from one center. It is possible that even impression materials will be transferred to this area within a year.

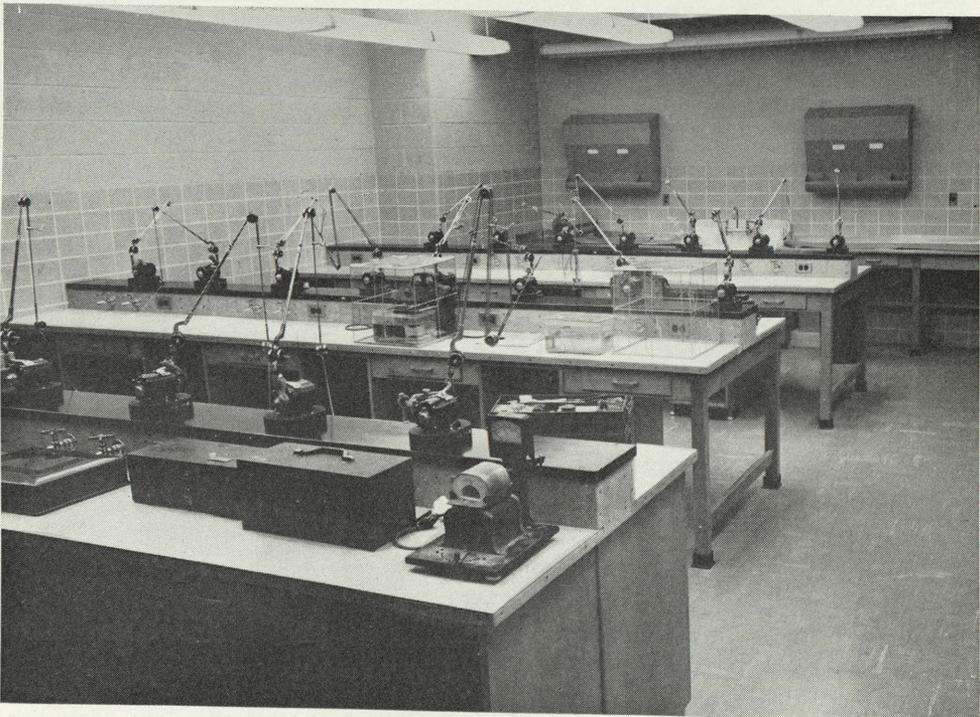
This clinic has proved to be workable and very convenient for the students. Each half day, students are assigned to chairs and instructors; and an attempt is made to keep the same instructor assigned to a case and also to keep the students assigned to a given instructor within the smallest area possible. A working arrangement has been made with the operative clinic so that chairs are first assigned at the south end of the crown and bridge clinic; and, if space is left at the north, any flow from operative can come into

the new wing; also, if crown and bridge has an overflow, it goes into the space just outside the door into the old clinic.

In this way our students are kept concentrated and our instructors can operate with the greatest efficiency.



Mr. Calvin Kernodle working in the technicians' laboratory which will also be used for the new course being offered for training technicians.



Student crown and bridge laboratory, having space for 25 students.

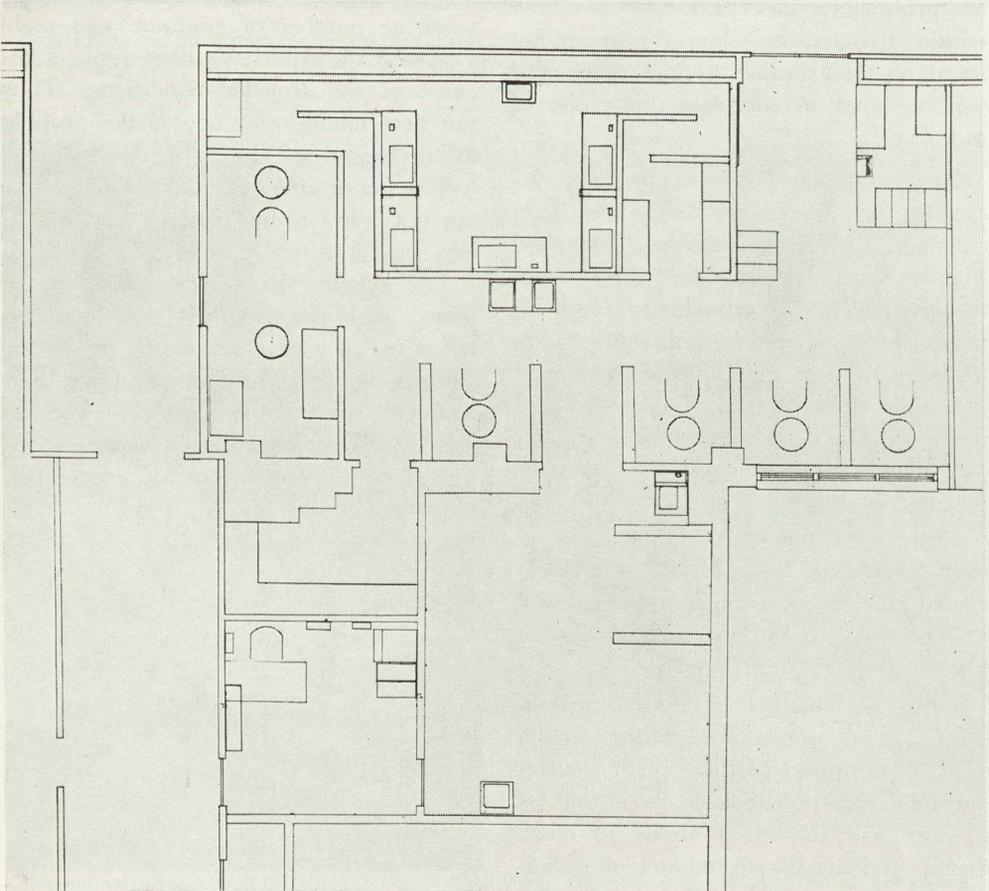
Radiology Department

Richard D. Norman

The changes involved with the department generally have followed the pattern of increased utilization of X-ray interpretation and increased safety factors. Since the construction of the first unit of the present building, the department has occupied four different areas. Dr. Spear had a one-man and one-unit clinic on the third floor; then a technician was employed and two units were utilized where surgery is now located on the second floor. In 1949 the department moved to its present general location with a faculty of two, staff of three, and four X-ray units. These changes were necessary as more patients could be examined and students took more X-rays. For instance, in 1934 students began to use the machine for the

first time. Groups of five seniors were allowed to take two or three exposures apiece. In 1948, prior to the third move, approximately 2200 full-mouth surveys were made. After moving to the present location in 1949 over 6000 patients were seen and 3600 full-mouth surveys were made utilizing both junior and senior students nine half days per year per student. This area occupied some 650 sq. ft. of clinic and darkroom.

About 1956 the dream of an increased area through the construction of a new wing reached the planning stage. Dr. Spear and Miss Hannah began to draw plans for the clinic. During the past year the department has been concerned with these plans and the changes involved. The new wing and changes in the older structure have resulted in an increased working area: 600 sq. ft. of clinic, 80



Floor plan for new radiology area. This facility is now nearing completion.

sq. ft. of darkroom, 100 sq. ft. for a film-mounting room, and 140 sq. ft. for the new office (a total of 1570 sq. ft.). Along with this area there has been an increase in equipment and storage facilities, all of which were needed. These changes have greatly improved the physical plant.

As one can see from the floor plan the greatest change involved the darkroom. An extra labyrinth was constructed so that there was an entrance and an exit (the old labyrinth). The processing tanks were stainless steel; two on the east, two on the west, and one on the south wall. Under each processing tank was a storage area and built-in cabinets. The old film-viewing area was changed to handle only wet film; complete with three panel illuminator, permanent fixing tank and wash bath on both sides. A film dryer was included on the east wall. Film can now be completely processed and mounted within four hours. The film-mounting room contains ample storage space and working area to complete this phase of radiology.

New equipment has been purchased, including two new X-ray units, new filing cabinets, and an autoclave. The old Fischer X-ray unit has been moved from surgery and the Westinghouse Cephalometer (formerly used by orthodontia) was placed with it in the clinic for extra-oral use. The sinks have been relocated and replaced. The department's physical plant can handle approximately 130 patients per day.

There are a few changes that have yet to be completed. These include permanent leaded shields between the units as well as enclosures around the sinks, a cabinet for the distilled water, and shelves.

With the changes in student assignments, three technicians, added faculty and the improved physical plant the department can now double its output of patients with increased ability to teach dental students the techniques of radiology.

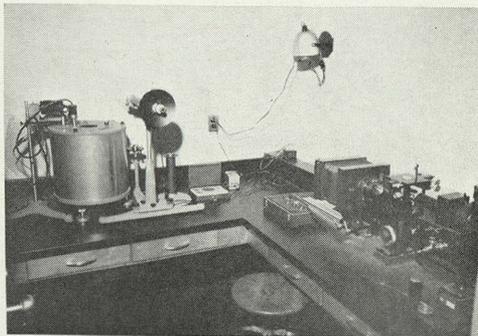
Department of Dental Materials

Ralph W. Phillips

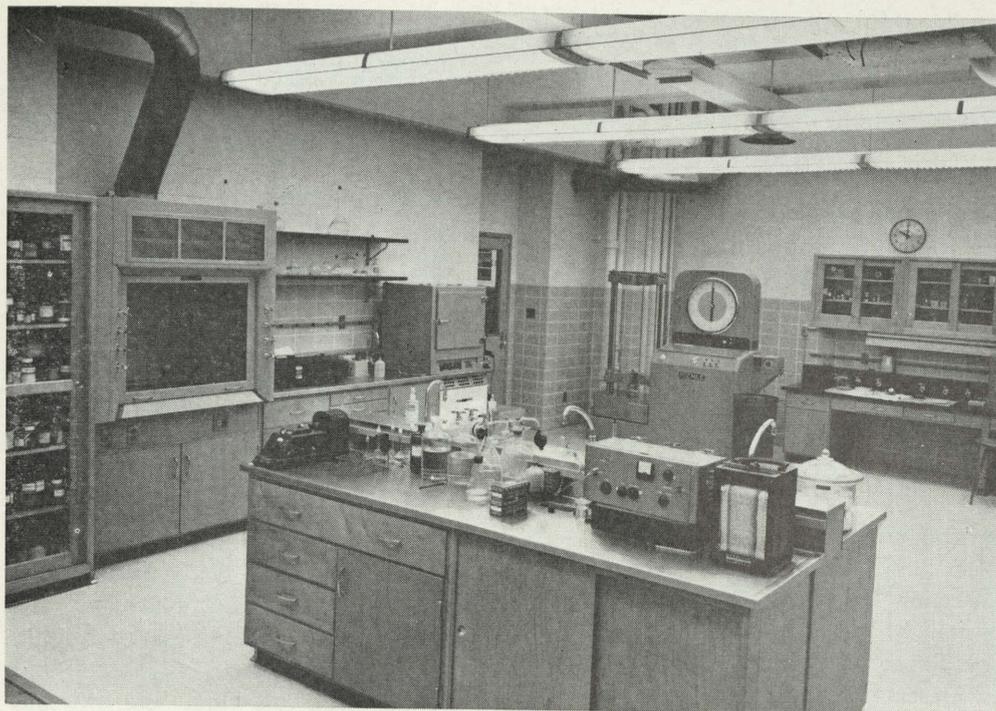
The original dental materials laboratory was established in 1940. Located in one room opposite the main office on the first floor, the facilities consisted primarily of physical testing apparatus and conventional dental laboratory equipment. As the activities increased, the department expanded by adding another smaller laboratory. This area, partially shared by oral pathology, was devoted primarily to studies which involved chemical analyses.

The area in the new wing allotted to the department of dental materials now consolidates the activities and makes possible the expansion of both the teaching and research programs. Certain projects, and even broad areas of research, had previously been neglected due to lack of adequate testing facilities and space. Likewise the number of graduate and post-graduate students have been limited because of the crowded conditions. Thus the new laboratories now make possible an expansion of the entire program as well as more effective facilities for carrying out our current research and teaching activities.

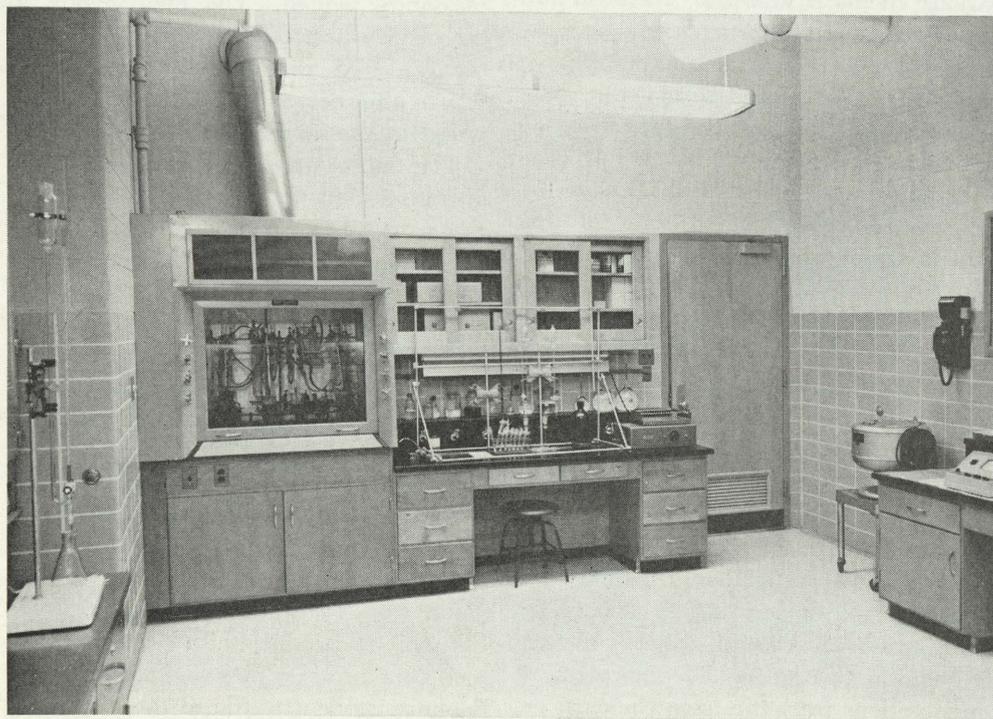
The original laboratory has been retained while the chemistry area has been taken over by oral pathology. Plans for remodeling the old laboratory have been approved, including replacement and relocation of many of the old workbenches. This laboratory will be concerned primarily with dental materials research.
(Continued on page 16)



Small dental materials laboratory showing interferometer and metallographic equipment.



New materials laboratory equipped for physical testing (note new testing machine in rear) and chemical analyses. Original laboratory now being redesigned opens to left.



Second laboratory is devoted primarily to chemistry. Constant temperature room is not shown.

marily with studies involving dental techniques and procedures.

The new area consists of two new laboratories. One of these, an area of approximately 30x20, is adjacent to the older original laboratory. This area contains chemical benches, a center island for physical measurements and a general workbench. The new equipment includes a centrifuge, refrigerator unit, conductivity apparatus and a new testing machine. The latter equipment will make it possible to study the strength of materials and tooth structure at very low loads, under fatigue and to correlate accurately stress and strain. Such measurements were not possible with the previously existing apparatus. Two large offices open into this laboratory as well as a small, 8x6, dark-room which contains metallographic equipment and an interferometer designed to measure setting changes of amalgam at mouth temperature.

Across the corridor is another room, 22x20, which is designed primarily for various chemical analyses. Included are stills for fluoride determinations, apparatus for measuring calcium and phosphorus solubility of enamel and dentin, volatilization apparatus for mercury analysis of amalgam restorations, a battery of constant temperature ovens and an area for cleaning glassware. At the rear of this laboratory is a small room, approximately 12x12, specially designed to control temperature and humidity within certain limits. Balances, workbenches and other equipment make it possible to study the influence of temperature and humidity upon the setting time and properties of dental cements and impression materials.

In general, the new facilities will provide an expansion of our activities in the direction which is familiar to the alumni of this school. The changing science of dental materials can no longer divorce the clinical, pathologic or biochemical considerations from the basic chemical or metallurgical properties of the material itself. While the fundamental purpose of

this department will still be teaching and research designed to keep our students and alumni abreast of newer materials and techniques, the larger and better equipped laboratories will permit additional basic studies and more effective teaching at both the undergraduate and graduate level.

Department of Operative Dentistry

H. William Gilmore

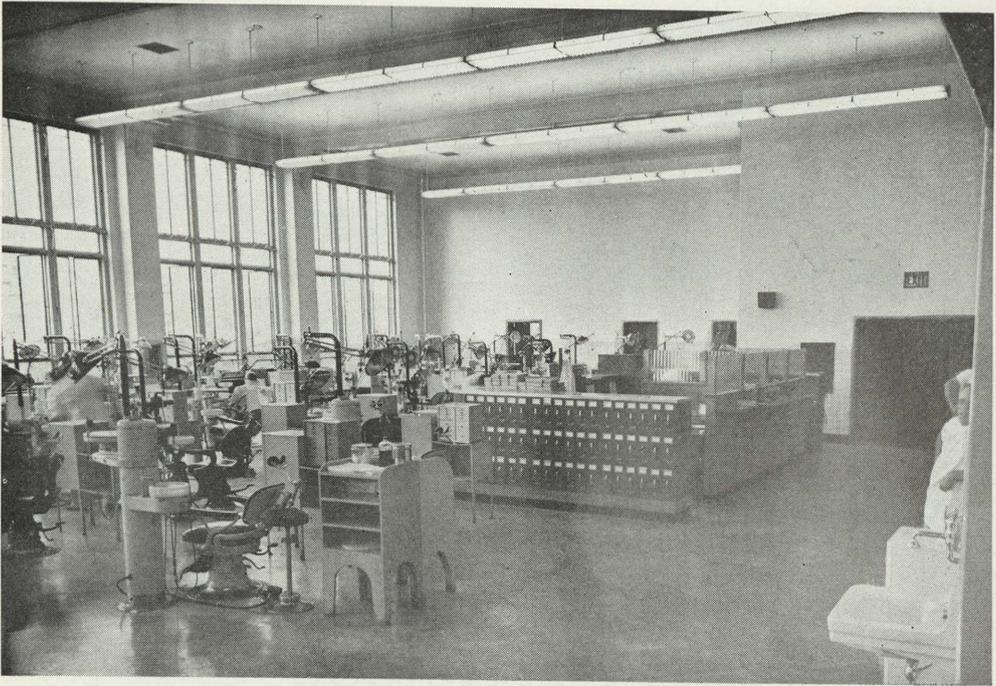
Although operative dentistry did not move into the new wing, the main clinic area on the third floor which the department still occupies has had its face lifted. Operating facilities have not been expanded but the opening of the new clinics have somewhat scattered the students and there is adequate room for the enlarged classes to treat their patients.

In the spring the clinic was tiled and painted which increased the illumination in the room. On some of the darkest days the available north light keeps the room pleasantly lighted. The high ceiling in the clinic was scrubbed this summer and the louvered fluorescent lights washed which also helped bring up the candle power in the room.

The most attractive addition to the operative clinic is the office of the Director of Clinics. The partitions of the office contain files in which the students keep their charts. With the exception of emergencies, all patients are processed through this area before they are assigned to students. The Director of Clinics aids the students with the construction of the treatment plans and case presentations. The clinic records are kept in this area which eliminates wasted time in looking for the charts when the dental work is being coordinated between the departments.

Supply stands have also been placed in numerous areas of the clinic in order to minimize student traffic to the dispensing window. Many of the materials that are

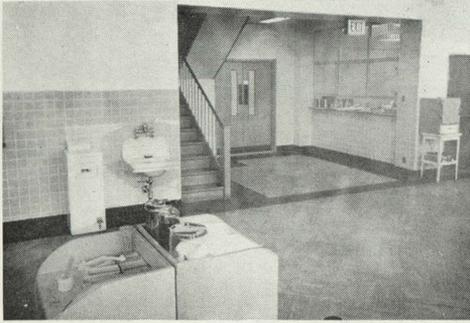
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View of part of the remodeled operative clinic area showing the offices and files for the Director of Clinics.



Closer view of the Director's office. This addition has greatly improved the administration of the clinic area as student progress can be daily charted.



New sterilizing room off of main clinic.

needed for cavity preparation and impression work are made available to the students without the use of requisitions. The only time it is necessary to use dispensing is when amalgam, gold foil and inlay restorative materials are needed.

The student sterilization area has new headquarters. The room has been completely remodeled and glass enclosed. Individual shelves have been constructed for the sterilizing trays which has eliminated the misplacement of many instruments.

New Ritter units have been installed in the clinic area in order to conduct the departmental research. Graduate students now have fairly isolated areas in which they can work on teaching cases and conduct studies which relate to their graduate training.

Although the main clinic is still basically the same, I am sure you will notice a marked improvement in the area when you visit the school.

Illustration Department

Richard C. Scott

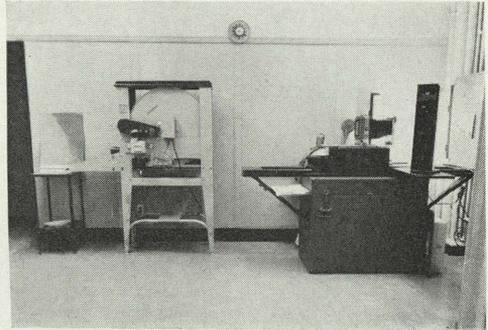
The location of the illustration department in the old building has been replaced by the connection corridor between the old and new building. Fortunately indeed for the department for it now occupies new quarters of which the total floor area has been doubled.

Upon entering Room 213 is the general clinical photography and studio. A

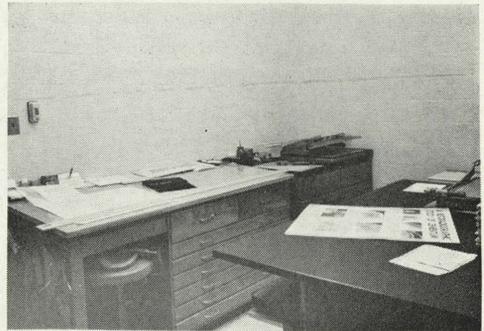
large shelved area with sliding doors houses the projection equipment and film files. Immediately to the left is the office with desk and file cabinets, also current film files.

The second clinical studio area may be entered from the office or from the first studio. Color clinical photos are taken here.

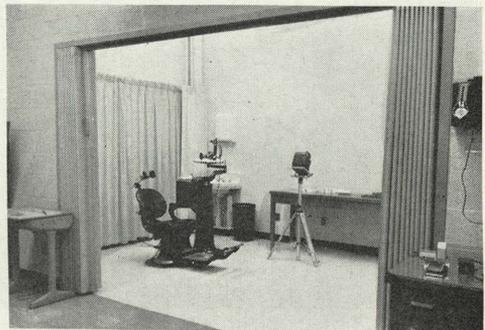
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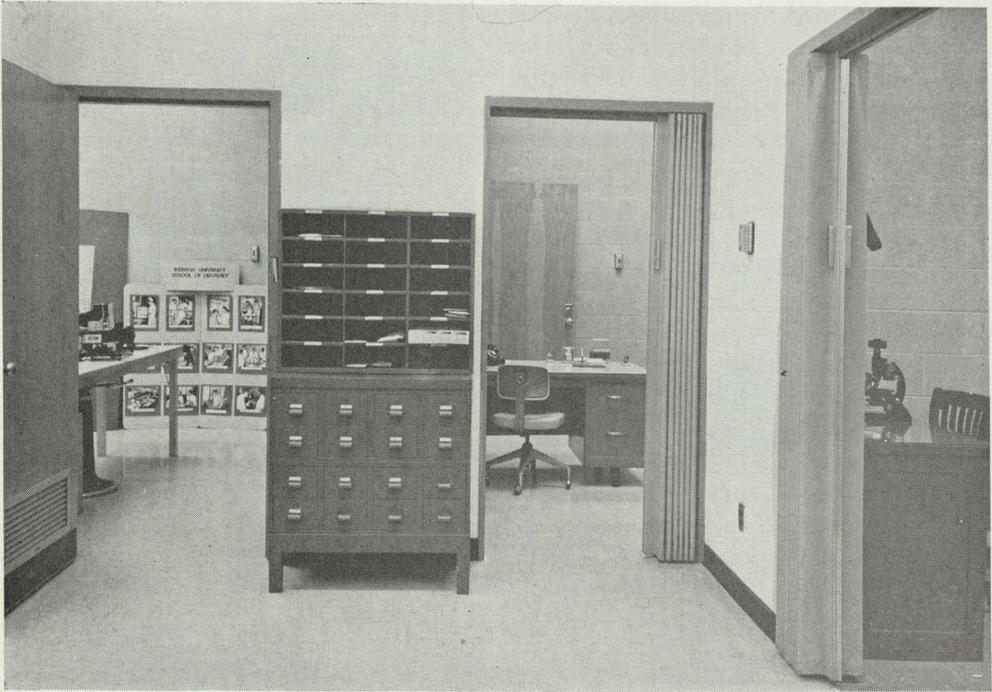
Print dryer and copy camera.



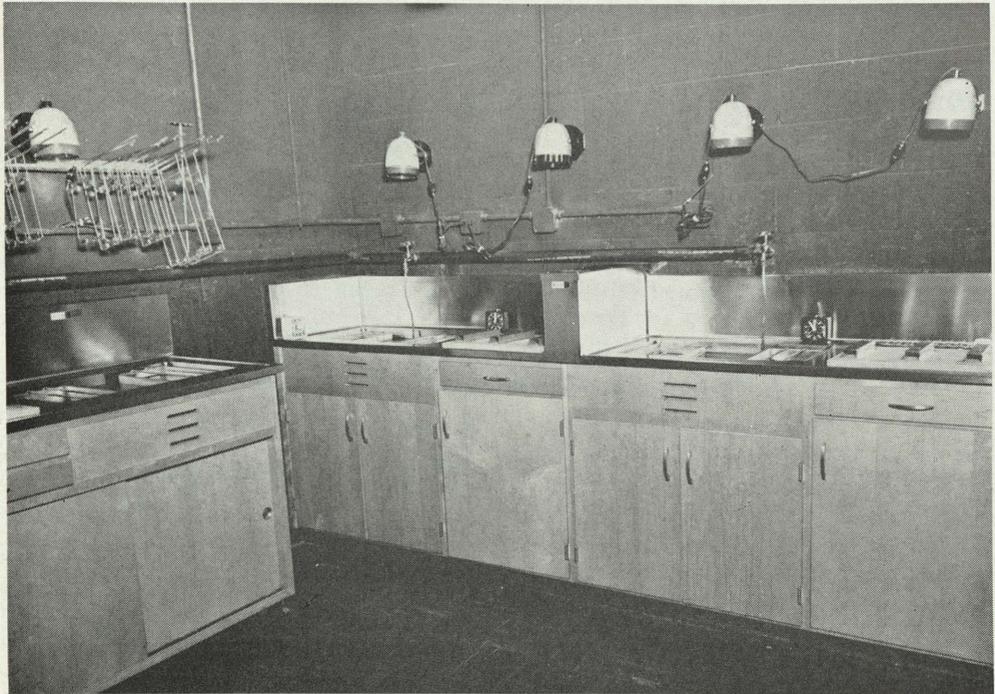
Art room and general work area.



Studio designed for clinical photography. Sliding doors conceal storage area.



A general view of one section of the illustration department showing office, clinical studio area and entrance to darkroom at right.



Portion of the darkroom containing large processing and developing facilities. All tanks are temperature controlled.

The room used for preparing art work, assembling exhibits, and general work area is to the right. Directly across the clinical studio, from the general work room, are double folding doors which facilitate the use of another room for photomicrography, the copy camera, the electric print dryer, and a sensitized material storage vault. The passageway in the far left corner of this room leads to a photo-print processing darkroom with processing sink, enlarging equipment, and print washer.

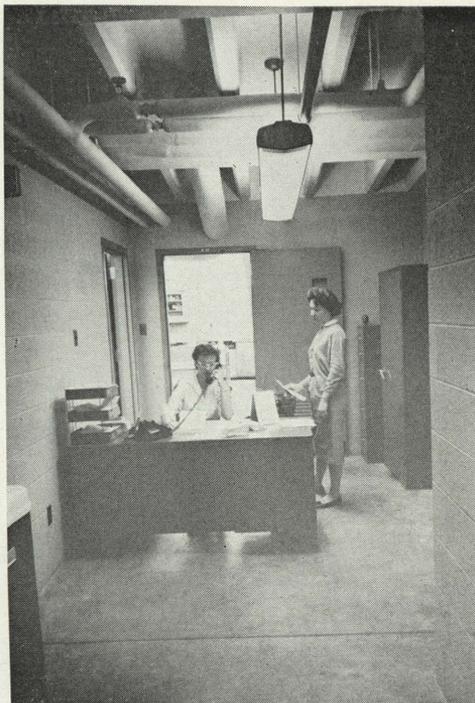
At the extreme end of the film processing darkroom with processing sink and tanks are the electric film dryer and auxiliary printing equipment for making some types of slides. Both darkrooms are equipped with a temperature-controlled water supply.

Preventive Dentistry

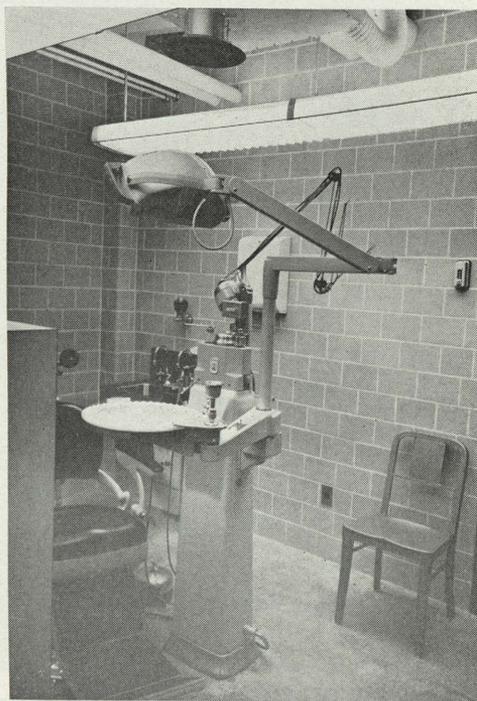
David Bixler

Within the past few years dentistry has seen a remarkable awakening of interest in preventive dentistry, both in the dental office and within the home. This interest has certainly been stimulated, at least in part, by the advances in knowledge and techniques of preventive dentistry which have come out of the research laboratories. However, this progressive research can only be sustained by laboratory facilities. A partial answer to this problem at Indiana University has been the establishment of a Preventive Dentistry Research Laboratory in the basement of the new wing of the dental school.

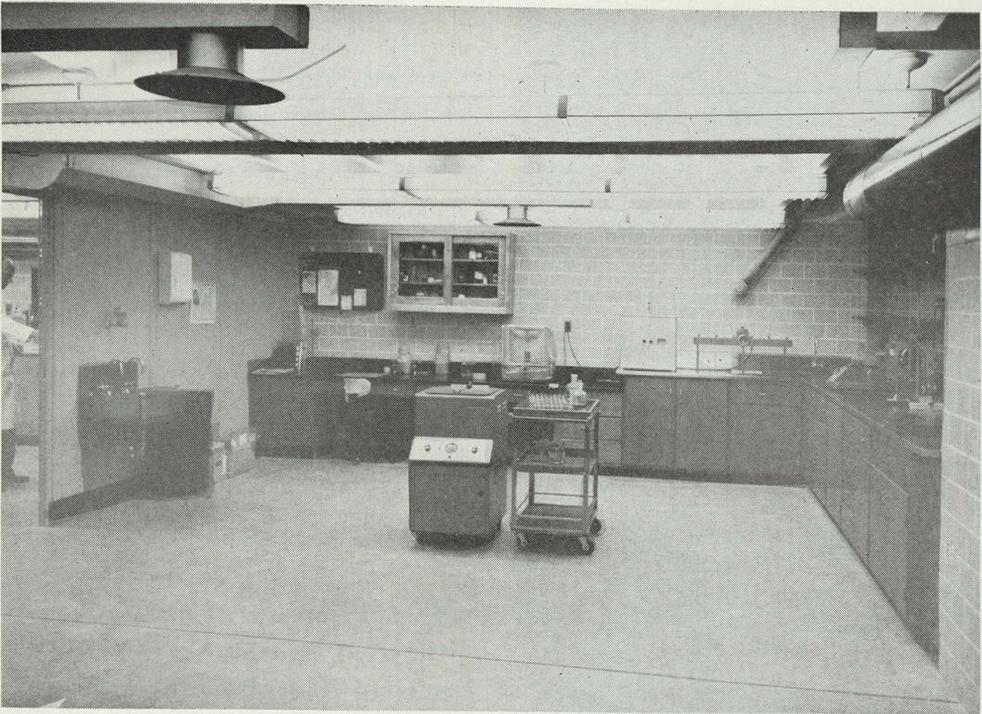
This area consists of a total of five rooms. Two of these are equipped with modern dental units which are used by hygienists and dentists alike in the conduct of clinical research problems on tooth decay, periodontal disease and related diseases. The remaining three rooms are utilized by graduate dentists and undergraduate students for research into the basic biochemistry of important dental problems. One of the more important



Entrance to preventive dentistry department showing files and secretarial area.



One of the units used in the clinical research program.



Biochemistry research laboratory. Two smaller laboratories at left are used by graduate students.

problems under investigation at the present time concerns the search for new anticarcinogenic compounds.

Recently, a clinical course in preventive dentistry has been offered the junior dental students. Part of this course includes a thorough biochemical and microbiological assay of the oral cavity with severe dental caries or periodontal problems. The majority of this analytical work is carried out by the students in these new quarters.

Approximately 25 people work in these new laboratories during the school year. It is apparent, then, that these facilities provide a valuable addition to our school in helping to advance dental research.

Oral Rehabilitation

Donald M. Cunningham

As yet the area in the new wing which will be devoted to oral rehabilitation has not been completed. However, a description of the aims of this department is summarized below.

The services to be rendered in the oral rehabilitation facility will be manifold. The patients most often in need of oral rehabilitation services are those with disfiguring or incapacitating defects of the oral or para-oral structures. These defects may result from congenital abnormalities, (cleft palate) disease (tumors), or traumatic injuries (auto-accidents, gun-shot wounds, etc.).

Following surgical, and orthodontic treatment the cleft-palate patient most often is in need of fixed and/or removable partial denture services. These prosthetic restorations may serve to replace missing teeth, splint periodontal weakened teeth or fix a movable pre-maxilla to stable buccal segments; or in some instances may support a pharyngeal extension to improve speech.

In cases of loss of oral or para-oral structures due to disease, particularly malignant neoplasms, prosthetic restorations are many times indispensable. These restorations may be either intra-oral or extra-oral in type and occasionally a com-

bination of each. The intra-oral prosthesis will vary in design depending upon existing condition; however, one commonly needed is the partial or complete maxillary denture with obturator. This prosthesis may be an immediate temporary, temporary, or permanent.

The immediate temporary obturator is a most valuable prosthesis in partial or complete resection of the maxilla. The prosthesis is constructed prior to surgery and inserted at the time of surgery. The immediate temporary obturator, by restoring the parts to be lost, allows the patients to eat, drink, and speak in a relatively normal manner. The prosthesis also assists the surgical treatment by retaining and maintaining the correct position of surgical dressings, and in some cases maintaining proper position of radioactive materials when radiation is indicated. Following adequate healing the permanent obturator is constructed to restore, in addition to the other functions mentioned, the function of mastication and to provide the maximum in esthetics. During the period of healing one or more intermediate temporary obturators may be necessary between the immediate temporary and the permanent in order to assure maximum function and patient comfort.

Other intra-oral prostheses such as partial or complete mandibular dentures for mandibular resection cases, implants, or splints can be provided.

Intra-oral acrylic or metal splints (Modified Kingsley or Gunning) can greatly aid the surgeon in the reduction and fixation of fractures of the jaws. Also tantalum trays can be provided for the surgeons use in fractures of the mandible.

Extra-oral prosthesis for the replacement of lost para-oral structures is a vitally needed service and can be provided in this facility. The loss of para-oral structure may be due to congenital defects, disease, or injury. Included in this category of treatment would be the fabrication of ears, eyes, noses and other parts of the face. Cranial implants can be also

provided in the treatment and reconstruction of severe head injuries.

It surely can be accurately stated that no rehabilitation program could be considered complete without these services, and the profession of dentistry possesses the knowledge, skills, materials and techniques to render such services. It is strongly felt that by close cooperation with the various divisions of medicine and dentistry that this facility can significantly contribute to the health and well being of patients needing this special care.

A description of the completed area, with photographs, will appear in the next issue of the "Bulletin".

A List of Refresher Courses to be Offered at Indiana University School of Dentistry 1961-1962

September 20-27; October 4-11: *CLINICAL ORAL PATHOLOGY*

Members of the staff will discuss aspects of clinical oral pathology on the four Wednesdays mentioned above.

November 1: *TREATMENT OF PERIODONTITIS*

A one-day symposium on the treatment of periodontitis will be presented by Dr. Sigurd P. Ramfjord of the University of Michigan, and members of the faculty of the dental school.

November 13-17: *PARTIAL DENTURE DESIGN AND CONSTRUCTION*

Dr. Ray Steinacher of the University of Nebraska and members of the dental school staff will present a course in partial denture design and construction.

November 13-17: *POSTGRADUATE COURSE IN PEDODONTICS*

Dr. Roy Lindahl of Chapel Hill, North Carolina, will join members of the faculty of the dental school to present this course for dentists of Indiana.

January 8-11, 1962:

CROWN AND BRIDGE PROSTHODONTICS

Members of the faculty will present a course on crown and bridge prosthodontics.

February 9, 16 and 23: *ORAL SURGERY FOR THE GENERAL PRACTITIONER*

Members of the Oral Surgery Department will present a course in oral surgery for the general practitioner.

February 7: *SYMPOSIUM FOR DENTAL TECHNICIANS*

Members of the faculty will present a symposium of interest to dental technicians.

February 28; March 7, 14, 21, 28; April 4: *PERIODONTICS POSTGRADUATE COURSE*

Dr. John F. Pritchard of Fort Worth, Texas, will join the dental school faculty in presenting this course.

March 7-9: *PORCELAIN JACKET CROWNS AND VENEERS*

Members of the staff of the dental school will cooperate in presenting this course of interest to dentists of Indiana.

April 30; May 1: *ORAL DIAGNOSIS — ORAL MEDICINE*

Members of the faculty will present a course in oral diagnosis-oral medicine of interest to the general practitioner of dentistry.

May 21-25: *ORTHODONTICS: THE SEGMENTED ARCH TECHNIQUE*

Members of the Orthodontic Department will present a course of particular interest to orthodontists.

June 5-8: *LABORATORY PROCEDURES IN BRIDGE AND PARTIAL DENTURE CONSTRUCTION FOR TECHNICIANS*

Members of the faculty will cooperate in presenting a course in bridge and partial denture construction which will be of interest to dental technicians.

Dr. Howell Appointed Assistant Dean

Dr. Charles L. Howell, since 1953 Director of the Dental Division of the Indiana State Board of Health, has been named Assistant Dean of the Indiana University School of Dentistry with the additional title of Professor of Public Health Dentistry. The appointment by the University Trustees was announced by Dean Maynard K. Hine of the Dental School.



Dr. Howell, new Assistant Dean

A native of Chalmers, Indiana, Dr. Howell received his D.D.S. degree from Indiana University in 1946 and an M.S. degree in public health from Johns Hopkins University in 1948. He spent five years in public health dentistry, being stationed at Woonsocket, R.I. and Richmond, Indiana.

During this period he conducted some of the early clinical studies on stannous fluoride as a preventive of dental decay. It was later developed for commercial usage by Dr. Joseph C. Muhler and Prof. Harry G. Day of the I.U. faculty.

While associated with the State Board of Health Dr. Howell also served as a Consultant in Public Health Dentistry to the I.U. Dental School.

He is president-elect of the American Association of Public Health Dentists, secretary of the Indiana State Dental Association, and is a Fellow in both the American College of Dentists and the American Public Health Association.

Dean Hine reports that...

The 1961 freshman dental class is composed of 90 carefully selected young men with very good academic records. Again this year we are unable to justify acceptance of all the applicants. Similarly, the first year dental hygiene class is filled; this year 34 were finally accepted from five times that many applicants. The freshman orientation program is scheduled to begin September 14, 1961, and classes will begin on September 18. The total enrollment for our dental school this year will therefore be higher than for many years.

To educate this increased enrollment many new faculty and staff members have been appointed. Dr. Charles L. Howell, formerly Director of the Dental Division of the State Board of Health, has accepted an appointment as Professor of Public Health Dentistry and Assistant Dean, beginning July 1. His responsibility will be to develop a program which will place additional emphasis on public health dentistry and allied subjects. Also appointed were:

James Guttuso, Teaching Associate, Endodontic Department
Stanley C. Herman, Instructor, Pedodontic Department
George T. Gifford, Associate Professor, Biochemistry Department
Karl W. Gossweiler, Teaching Associate, Crown and Bridge Department
Robert B. Hirschman, Instructor, Orthodontic Department
Harold R. Laswell, Teaching Associate, Operative and Dental Materials Departments
Earl L. Moore, Instructor, Orthodontic Department
Robert H. Spedding, Teaching Associate, Pedodontic Department
W. Kelley Carr, Consultant, Pedodontic Department

Donald Traicoff, Graduate Assistant, Radiology Department
Richard V. Thompson, Graduate Assistant, Operative Department
David M. Letz, Graduate Assistant, Operative Department
Walter J. Raibley, Instructor, Operative Department
Walter A. Crum, Intern in Oral Surgery
Richard W. Henry, 1st year Resident in Oral Surgery
Joseph L. Bigelow, 2nd year Resident in Oral Surgery
William Leyda, 1st year Resident in Pedodontics
Darryl Harris, Intern in Pedodontics
James E. Jerger, Intern in Pedodontics
Bailey Davis, 1st year Resident in Pedodontics

Dr. Frank C. Hughes retired as Professor of Prosthetic Dentistry July 1. In his long and illustrious career in dental teaching probably Dr. Hughes has influenced personally more practicing dentists in Indiana than any other single individual. He was born in Chanute, Kansas, May 8, 1891 and early demonstrated strong individualistic characteristics by traveling eastward rather than westward. After being graduated from Indiana Dental College in 1918, he served in the Army for a time and then returned to Indianapolis in 1920 to teaching in the dental school, and as was the custom at that time, to practice dentistry part time. Dr. Hughes accepted a full time teaching appointment and chairmanship of the Prosthetics Department in 1953 and was named Director of Clinics in 1948.

Every one of the thousands of students who were granted the D.D.S. degree at Indiana since 1920 will never forget Dr. Hughes. His forceful, positive approach to dental problems, coupled with his well-developed technical knowledge and skill,

made him one of the nation's leaders in his chosen field of prosthetic dentistry. During Dr. Hughes' teaching career and partly through his efforts, the developments in dental science have been so extensive they are almost alarming; the transition from relatively crude, unsightly vulcanite "plates" to esthetically acceptable and functional "dentures" was both witnessed and aided by Dr. Hughes.

Dr. Hughes was a popular lecturer for dental societies, and the author of many articles for professional journals. He also found time to be active in dental organizations and was elected president of the Indianapolis District Dental Society in 1959. He and his gracious wife have been active in most of the dental organizations in this area. All agree that they have elevated Indiana's dentistry.

The faculty members continue to be in great demand for scientific programs. This summer Dr. Drexell A. Boyd lectured in Sao Paulo and Rio de Janeiro and Professor Ralph Phillips carried on his usual busy schedule, which included talks made in Sao Paulo, Pelotas, Porto Alegre, and Rio de Janeiro (Brazil).

I wish to thank those who were kind enough to send cards, letters, flowers, and to make phone calls wishing a speedy recovery following my ill-fated trip to Finland. I planned to attend the meeting of the Federation Dentaire Internationale in Finland in early July, but became ill within hours after arriving there and spent twelve of the fourteen days I was in Finland in the hospital. Emergency surgery was required; recovery has been slow, but uneventful. I have just recently returned to my office on a part-time basis.

The addition to the dental school is now completely occupied and as soon as a few details are worked out, the building will be formally accepted by the University. The dedication program is scheduled for early fall.

An extensive remodeling program is now underway, designed to make parts of the old dental school building more

efficient. For the first time since the building was built the area occupied by the administration is to be enlarged; one of the small lecture halls on the first floor is to be added to the library, and the lecture hall on the second floor made into offices and laboratory space. A special endodontic clinic is being constructed on the third floor, and the area formerly occupied by orthodontics is being remodeled to accommodate graduate pedodontics. Completion of these projects should put the dental school physical facilities in excellent condition to care for the increased enrollment and the increased scope of our dental educational program.

As has been reported previously, our graduate and research programs are expanding so rapidly that in essence this is equal to an additional class.

Honor Day Awards

The Honor Program for the dental seniors and the dental hygiene graduates was held in the Student Union Building on Sunday afternoon, June 4. The program was directed by Dean Maynard K. Hine and a list of the awards and recipients follows.

American Academy of Dental Medicine certificate for proficiency:

James H. Hornberger

American Academy of Gold Foil certificate for proficiency:

James D. Wilson

American Society of Dentistry for Children certificate of merit and cash award:

John D. Williams

Indiana Society of Oral Surgeons cash prize:

Joseph E. Anderson

Walter A. Crum, Jr.

Robert G. Botkin Award

Karl W. Gossweiler

American Academy of Periodontology

Gerrit Hagman

American Academy of Oral Roentgenology certificate for proficiency:

Paul I. Lew

Alpha Omega (national chapter) award for four-year outstanding scholastic record

Ralph E. Walls

Indiana State Dental Laboratory Association award for

full denture—*James R. Platt*

partial denture—*James D. Wilson*

crown and bridge—*Thomas A. Kroczek*

Omicron Kappa Upsilon radiology interpretation contest:

1st prize—*John E. Regan*

2nd prize—*William C. Rubach*

3rd prize—*Alphonso Trotman*

American College of Dentists award to student showing most improvement since freshman year:

Thomas A. Kroczek

Senior Essay Awards

1st prize—*James R. Platt*

2nd prize—*David M. Latz*

3rd prize—*Ernest W. Scheerer, Jr.*

Special Essay Award (Block Company) for paper of unusual merit:

John E. Regan

Ert J. Rogers Memorial Award in crown and bridge:

Ralph E. Walls

Interfraternity Council Scholarship plaque:

1st place—Psi Omega (*Dr. Bixler*)

2nd place—Alpha Omega (*Dr.*

Patterson)

Omicron Kappa Upsilon membership certificates:

James Hornberger

David Latz

David Sawyer

Ernest Scheerer

Ralph Walls

John Williams

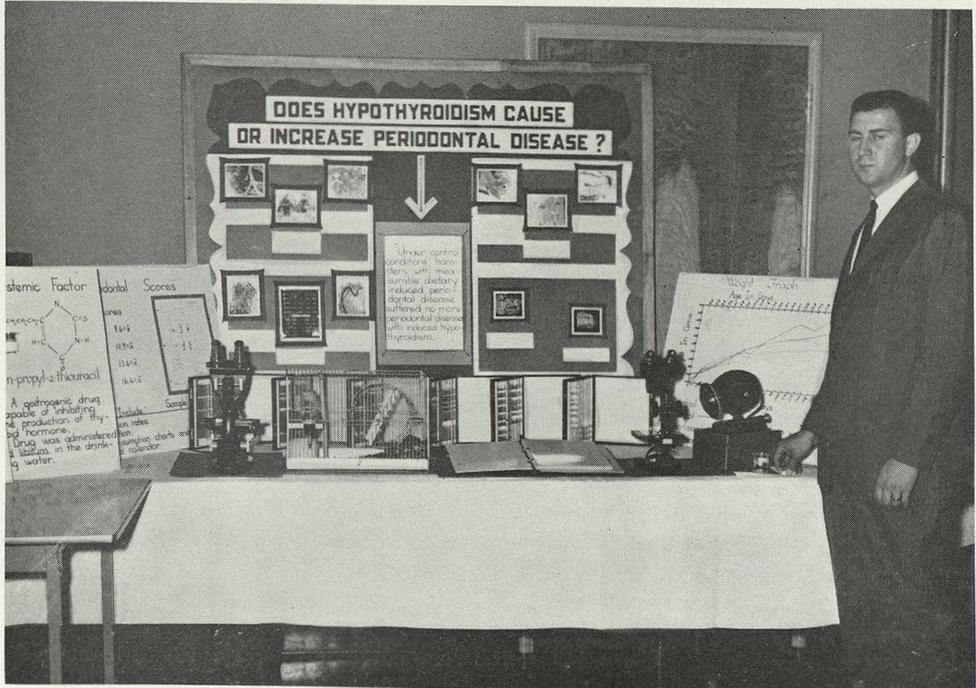
James Wilson

Arnold Wuebbenhorst

Certificate to sophomore with outstanding record in freshman year:

William Rosenstein

(Continued on page 38)



Richard L. Fisher, sophomore dental student, displays his exhibit which was awarded first prize in the Student Clinic Program.



1961 Dental Hygiene graduates.



Senior students elected to Omicron Kappa Upsilon shown with Dr. Cunningham, left, president of Theta Theta chapter. Top row: E. W. Scheerer, J. H. Hornberger, R. E. Walls, D. M. Latz. Bottom row: D. H. Sawyer, J. D. Wilson, A. M. Wuebbenhorst, J. D. Williams.

Alumni Notes

Here it is time to say "hello" again—and we have just said "farewell" to another graduating class! As usual this is a busy—rather sad—time for us here at the dental school. We are a little like the mother hen, anxious to push our offspring out into the world to show how well they can do, yet sorry to lose the friends we have made in the past four years. It is always such a privilege to work with each graduating class, and as usual, we wish to say "best of luck" to each and every member of the Class of 1961!

It HAS been a very busy spring for us at the dental school, and we have just settled back after the annual flurry of Honors Day, graduation and State Boards. Remember, you grads?

There must be a great deal of dentistry being done by the graduates of Indiana University School of Dentistry; it seems that very few of you have taken the time to sit down and write to the Recorder of your Alma Mater and tell us of your activities. Come on, now, don't put it off—remember that YOU read this column and YOU want to hear about your classmates; well, THEY want to hear about YOU, too.

Our sincere thanks to those of you who have written in since the last issue, and we are sure that you are all anxious for news of the

Class of 1911

Dr. George E. Bell
621-624 Lafayette Life Bldg.
Lafayette, Indiana
writes

"In 1942 I had a coronary and since then have limited my practice . . . I am in good health now and work every day. Spend some time each winter in

by Mrs. Cleona Harvey, Recorder

Florida with my daughter and grandchildren.

"Was surprised to see so many of my old classmates gone. I will be retiring before too long.

"Best wishes to what's left of us!"

Dr. I. T. Hull

R. R. 3
Boonville, Indiana
writes

"I certainly appreciate getting the Alumni Bulletin. While in Florida the past winter, was talking to a couple from Sault Saint Marie, Michigan; told her I had a classmate from their town—Charles W. Marriott—and she informed me he was dead; he had been her dentist. He had been dead several months when I was talking to her.

"I had to have some surgery on my stomach after I returned from Florida; I am getting along fine."

Class of 1915

A letter from

Dr. B. F. Randolph
407 M. E. Building
Shelbyville, Indiana
informs us that

"June 10, 1961 will be the 46th milestone in my practice of dentistry; still in active practice. Conduct practice on a 5-day schedule; taking 4-6 weeks' vacation each year.

"May I state that in my opinion, we had one of the finest classes in Indiana Dental College."

Class of 1916

Dr. Louis M. Daum
General Delivery
San Bernardino, California
writes,

"The evening of life finds me in retirement. My only diversion is to bowl. I am fairly good, if the other fellow isn't!

"I often think of the dear boys of the 1916 Class. So long ago, yet the years have sped on rapidly.

"Here is a big 'HELLO' to all my classmates."

Class of 1941

We have received a change of address for

Dr. Willard H. Damm
Medical Arts Building
3700 Bellemeade Avenue
Evansville, Indiana

Class of 1955

Dr. W. Kelley Carr announces that following two years of graduate study at Indiana University he is opening his office for a practice limited to orthodontics at

41 Lafayette Loan and Trust Bldg.
Lafayette, Indiana

Class of 1957

Dr. George Von Mohr
235 Palm Drive
Vista, California
announces the birth of Eric George on July 20, 1961. Congratulations and best wishes to the family.

Class of 1960

We received such an interesting letter from

Lt. W. Richard Leyda
Box 62, Navy #943
%FPO, San Francisco, California,
in which he reports:

"It doesn't seem possible that my wife and I have been away from I.U. almost one year. I apologize that I haven't written before now; to say I've been too busy would be a poor excuse. Please say 'Hello' for us to all of our

much thought-of professors and Dean Hine.

"Well, I imagine you are much in the process of readying yourself to graduate another class. How are they all doing this year? Carole and I were remarking that she as a Dental Hygienist and myself as a Dentist already feel like old-timers.

"The weather here on Guam is much the same as it is all year around only a bit hotter now. We're going through the dry season right now. I'm getting much training and experience in my field as we have a rather large base here at the Naval Air Station. We do work on dependents here also. Dr. Johnston will, however, be unhappy to know that we don't do any crown and bridge or partial denture work at all; this also includes full dentures. I plan to take a refresher course as soon as I return to Indiana.

"Last week I just returned from a week in Japan with a fellow dentist. We went to the Stomatological Society of Japan meeting in Zama, Japan, outside Tokyo. Dr. Bunch and I represented the Navy on Guam. We hope to join their Society for a tremendous price of \$1.00 per year. I am already a member of Guam's Dental Society, composed mostly of military dentists with about ten civilians. We meet once a month, having a business meeting and post-graduate films to keep us up on the latest changes in dentistry.

Carole and I are quite proud to announce the arrival of a little baby girl into our family April 1 . . . Little Deborah Kay was 7 lbs. 12 oz., 21 inches long at birth and raising quite a fuss. At present she's 9 lbs. 22 inches long and talking up a storm. She has just told me that she says 'Hi' to you all!
Dick and Carole Leyda"

And now we are sure you will be interested in the names and addresses of the Graduating Class of 1961:

The Class of 1961

Joseph E. Anderson
729 West 11th Street
Apt. B-2
Indianapolis 2, Indiana

Gregory Bell
Instructor, Crown & Bridge
Howard University
Washington, D.C.

Fabio Beltran
3424 St. Ambrose Avenue
Baltimore 15, Maryland

James F. Bennett
3824 Chatham Road
Louisville, Kentucky

John G. Bies
12th Street
Tell City, Indiana

William R. Border
P.O. Box 27
105 Arch Street, South
Monon, Indiana

Ronald K. Bowman
1236 Rowin
Indianapolis, Indiana

Reinhard L. Bubenzer
3605 Balsam Avenue
Apt. 19
Indianapolis, Indiana

Richard L. Burket
206½ Walnut Street
Tipton, Indiana

Burthal Cleveland
440 North Winona
Indianapolis 2, Indiana

Joseph H. Cortese
4831 English Avenue
Indianapolis, Indiana

W. Alan Crum, Jr.
6417 North Park Avenue
Indianapolis, Indiana

Donald E. Darrow
826 Midway Drive
Auburn, Indiana

William E. Ditto
Aux. Route
Warsaw, Indiana

William R. Finley
Delphi, Indiana

James Fipp
Rome City, Indiana

Karl Gossweiler
3504 West 11th Street
Indianapolis, Indiana

Thomas H. Graffis
224 Hillsdale Avenue
Greencastle, Indiana

Donald A. Greiner
1220 Ravenswood Drive
Evansville, Indiana

Gerrit C. Hagman
4450 Marcy Lane, #106
Indianapolis, Indiana

Darryl C. Harris
R.R. 2, Box 44 A
Brownsburg, Indiana

Charles D. Hay
418 South Fourth Street
Terre Haute, Indiana

James H. Hornberger
1501 West 29th Street
Indianapolis 23, Indiana

James D. Hurst
905 Manhattan Street
Michigan City, Indiana

James E. Jerger
4120 Edgemere Court
Indianapolis, Indiana

John D. Kail
Ladoga, Indiana

Thomas A. Kroszek
1526 Park Drive
Munster, Indiana

Edmund E. Laskowski
c/o Dr. C. P. Latshaw
R.R. 3
Shelbyville, Indiana

Harold R. Laswell
60 North 5th Street
Zionsville, Indiana

David M. Latz
624 Oxford, North
Indianapolis, Indiana

Paul I. Lew
405 North Limestone Street
Indianapolis, Indiana

Clifford T. Maesaka
115 Makani Avenue
Wahiawa, Oahu, Hawaii

John F. McLaughlin
629 East 32nd Street
Indianapolis, Indiana

Jack P. Mollenkopf
1704 Woodland Avenue
West Lafayette, Indiana

Harry R. Netzhammer
840 Home Avenue
Hobart, Indiana

John E. Newlin
P.O. Box 360
Robinson, Illinois

James C. Parker
Plainfield, Indiana

James R. Platt
3806 Rockville Road
Indianapolis, Indiana

John E. Regan
1316 Poplar Street
Huntington, Indiana

C. Robert Ricci
3146 Cossell Drive
Indianapolis, Indiana

William C. Rubach
1415 West 29th Street
Indianapolis, Indiana

Eugene T. Rumas
7847 Calumet Avenue
Munster, Indiana

David H. Sawyer
Box 51
Sidell, Illinois

Ernest W. Scheerer, Jr.
Queen's Hospital
Honolulu, Hawaii

Ronald J. Schoeps
550 West Hillside
Spencer, Indiana

Charles E. Smith
North Wayne Avenue
Waterloo, Indiana

George C. Smith
610 Plum Street
Chesterfield, Indiana

Marvin P. Smith
R.R. 3
Crown Point, Indiana

Donn H. Spilman
212 Lincolnway West
Osceola, Indiana

Harry E. Sponseller
1067 Lincolnway East
Plymouth, Indiana

Dale E. Steele
430 North Berwick
Indianapolis, Indiana

Richard V. Thompson
509 North Bradley Avenue
Indianapolis, Indiana

Alphonso Trotman
7272nd USAF Hospital
APO 231
New York, New York

Donald L. Tyler, Lt.
AO 31 132 89
Tachikawa AFB
Tachikawa, Japan

James E. Vaught
Lt., DC., USNR
Box 64, Navy 115
New York, New York

Ralph E. Walls
22 Sherman Drive
Carmel, Indiana

H. William Watts
726 7th Street
Columbus, Indiana

Daniel S. Weaver
821 Grand
Connersville, Indiana

John D. Williams
1254 North Concord
Indianapolis, Indiana

James D. Wilson
112 North Second Street
Boonville, Indiana

Gerald H. Wilzbacher
6068 Riverview Drive
Indianapolis, Indiana

R. A. Winkler
General Delivery
San Francisco, California

A. M. Wuebbenhorst
R.F.D. 8
Fort Wayne 8, Indiana

Ralph E. Wyand
305 Compton Hills Drive
Cincinnati 15, Ohio

Pete Zonakis
200 South Washington
Hagerstown, Indiana

Library

Mrs. Mabel Walker, Librarian

The following is a selected list of book additions to the library since January 1961. All of these are available for loan to alumni.

American association for the advancement of science—*Calcification in Biological Systems*. Edited by Reidar F. Sognaes. Washington, AAAS, 1960.

Benda, Clemens E.—*The Child With Mongolism*. New York, Grune & Stratton, 1960.

Bernier, Joseph L.—*The Management of Oral Disease*. 2 ed. St. Louis, Mosby, 1959.

Best, Charles H. and Taylor, Norman B.—*The Physiological Basis of Medical Practice*. 7th ed. Baltimore, Williams & Wilkins, 1961.

Bisset, K. A. and Davis, G. H. G.—*Microbial Flora of the Mouth*. Springfield, Illinois, C. C. Thomas, 1960.

Blackman, Sydney—*An Atlas of Dental and Oral Radiology*. Bristol, J. Wright, 1960.

Bourne, Geoffrey, editor—*The Structure and Function of Muscle*. 3 vols. New York, Academic Press, 1960.

Braestrup, Carl B. and Wyckoff, Harold O.—*Radiation Protection*. Springfield, Ill., Thomas, 1958.

Cawson, R. A. and Cutforth, R. H. — *Medicine for Dental Students*. Boston, Little, Brown, 1960.

Cheraskin, Emanuel—*Diagnostic Stomatology*. New York, Blakiston Division, McGraw-Hill, 1961.

Collins, Vincent J. — *Fundamentals of Nerve Blocking*. Philadelphia, Lea & Febiger, 1960.

Conference on Polysaccharides in Biology —*Transactions. 5th Conference*. New York, Josiah Macy, Jr. Foundation, 1959.

Cronkite, Eugene P.—*Radiation Injury in Man*. Springfield, Illinois, Thomas, 1960.

Crosby, Paul Stevenson—*Manual of Operative Dentistry*. Ann Arbor, Michigan, 1957.

Ellis, Roy Gilmore—*The Classification and Treatment of Injuries to the Teeth of Children*. 4th ed. Chicago, Year Book Publishers, 1960.

Etter, Lewis E.—*Glossary of Words and Phrases Used in Radiology and Nuclear*

- Medicine. Springfield, Illinois, Thomas, 1960.
- Evans, Ulick R.—*The Corrosion and Oxidation of Metals: Scientific Principles and Practical Applications*. New York, St. Martin's Press, 1960.
- Fanning, Robert J.—*Your Child's Teeth; A Pattern for Life-long Dental Health*. New York, Vantage Press, 1958.
- Fuchs, Arthur Wolfram—*Principles of Radiographic Exposure and Processing*. 2 ed. Springfield, Illinois, Thomas, 1958.
- Jablonski, Stanley—*Russian-English Medical Dictionary*. New York, Academic Press, 1958.
- Johns, Harold Elford—*The Physics of Radiology*. 2d ed. Springfield, Ill., Thomas, 1961.
- Johnson, Wingate, editor—*The Older Patient*. New York, P. B. Hoeber, 1960.
- Lukens, Francis D. W., editor—*Medical Uses of Cortisone*. New York, Blakiston, 1954.
- Lundstrom, Anders, editor—*Introduction to Orthodontics*. New York, McGraw-Hill, Blakiston Division, 1960.
- Neustadt, Egon—*A Practical System of Orthodontics*. New York, Fairfield Press, 1961.
- Olin, William H.—*Cleft Lip and Palate Rehabilitation*. Springfield, Ill., Thomas, 1960.
- Rosenau, Milton Joseph—*Preventive Medicine and Public Health*. 8th ed. New York, Appleton-Century-Crofts, 1956.
- Schueler, Fred—*Chemobiodynamics and Drug Design*. New York, Blakiston Division, McGraw-Hill, 1960.
- Wuehrmann, Arthur H.—*Radiation Protection and Dentistry*. St. Louis, C. V. Mosby, 1960.

The following periodicals are among those added to the library since January 1961.

Bulletin of Dental Education Children
Current Digest of the Soviet Press Dental Progress
Dental Technician (England)

Fund for Dental Education, Inc. News Bulletin
Journal of Child Psychology and Psychiatry and Allied Disciplines
Nairite (Nair Hospital Dental College, India)

Abstracts follow of five M.S.D. theses written in the Graduate School, Indiana University in the latter part of 1960 and in June, 1961. It is interesting to note that in addition to fifteen libraries in this country, theses have been loaned also to libraries in England, Scotland and South America during the past year.

A LONGITUDINAL CEPHALOMETRIC STUDY OF SEVERAL FACTORS INVOLVED IN OVERBITE CORRECTION AND RECURRENCE IN CLASS II (ANGLE) MALOCCLUSIONS, W. Kelley Carr, December, 1960.

ABSTRACT

This thesis was a cephalometric study of several factors involved in overbite correction and recurrence in Class II malocclusions. In order to investigate the problems it was found necessary to develop a plane in the front part of the face to which measurements could be made. This plane was kept non-changing by relating it to a stable portion of anterior cranial base.

The method of measurement of overbite was investigated and it was found that the usual method of evaluating overbite clinically could be improved. This was particularly true when overjet and axial inclinations of the opposing central incisors, as in Class II, Division I malocclusions were a problem.

Because intermaxillary height plus change in the elevation of maxillary and mandibular central incisors were thought to vary with a change in the patient's overbite, intermaxillary height and depression or elevation of teeth were considered in some detail.

The problems of accurately measuring ramus growth of the mandible are discussed, and intermaxillary height and depression of central incisors are considered in regards to ramus growth. Since inter-

maxillary height can affect overbite, change in intermaxillary height during and after treatment were compared with ramus growth. The total depression of maxillary and mandibular central incisors were compared to ramus growth. This was done to determine whether depression of teeth was being obtained in the sample while ramus growth was taking place.

Observations were made concerning the success of overbite correction in that portion of the sample with cephalograms 4 years or more after the end of active treatment. In the individual data sheets in the appendix a number of other measurements are found which will be useful in providing a good picture of what took place during and following active treatment for individual patients.

The small size of the sample (22) was a disappointment as it was hoped to obtain a sample size of 50 to 60. The uniformity of the sample in regards to age at beginning of treatment, type of treatment, length of treatment time, sex distribution, lack of clinical examination for muscular factors, and time of last cephalogram was a distinct disappointment. Although the sample did not reach expectations, it does contain much useful and valuable information.

CONCLUSIONS

1. When investigating the relationship of intermaxillary height with an increase in overbite following active treatment in this sample, it was found that whether intermaxillary height increased or decreased, overbite was found to increase.
2. A method (Method 2) for measuring recurrence of overbite following active treatment has been tested and found to have a high degree of reliability. When Method 2 is used to evaluate Class II, Division I cases before treatment, its accuracy is not as good, and it fails to measure all the potential overbite present.

3. Another method for measuring potential overbite (Potential Overbite Method) has been presented, evaluated, and found to have a high degree of reliability.
4. Overjet and axial inclination of the central incisors affect the potential overbite in Class II, Division I patients.
5. Intermaxillary height was found to increase more during active treatment than following the completion of active treatment.
6. The increase in intermaxillary height during active treatment exceeded the ramus growth (as measured in this study) in 7 of 21 cases. In 4 of these 7 cases there was a decrease in intermaxillary height following active treatment. This would suggest that intermaxillary height probably should not be increased more than the amount of ramus growth during treatment.
7. The vertical movement of maxillary central incisors during active treatment showed a range of 6.0 mm. This range of movement indicates to us a measure of the orthodontist's choice of where maxillary central incisors can be placed in a vertical plane of space during treatment.
8. The vertical movement of mandibular central incisors during active treatment showed a range of 8.25 mm. This range of movement indicates to us a measure of the orthodontist's choice of where mandibular central incisors can be placed in a vertical plane of space during treatment.
9. There is a strong tendency for the maxillary and mandibular central incisors to elevate following active treatment.
10. The individual data suggest that elevation of teeth following active treatment may be related to other factors than the amount the tooth was depressed during active treatment.

A STUDY OF THE COMPARATIVE ACCURACY OF ELASTIC IMPRESSION MATERIALS UTILIZING PARTIAL DENTURE IMPRESSIONS, Donald M. Cunningham, June, 1961.

ABSTRACT

In a study of the comparative accuracy of elastic impression materials and the effect of thickness of material on accuracy, forty-eight full arch impressions were taken of a maxillary partially edentulous metal model. Four types of elastic impression materials were used, polysulfide and silicone rubbers, reversible and irreversible hydrocolloids. Three different thicknesses of impression materials were studied, one and one-half, three, and four and one-half millimeters.

The accuracy of the resulting casts was determined by horizontal linear measurements between reference marks and also by the comparative fit of a master gold partial denture casting on the stone models obtained by pouring up the impression taken with the various materials.

CONCLUSIONS

1. The metal master model could be accurately duplicated with reversible hydrocolloid and both polysulfide and silicone rubbers.
2. Accurate reproduction of the master model was not obtained with irreversible hydrocolloid.
3. As material thickness was increased, accuracy decreased for the rubber impression materials.
4. The rubber impression materials gave excellent reproduction of surface detail. Reversible hydrocolloid was considered good; however, irreversible hydrocolloid was inferior.

A STUDY OF THE OCCURENCE OF PIGMENTATION IN INCIPIENT AND ADVANCED CARIOUS LESIONS OF TEETH EXPOSED TO STANNOUS FLUORIDE: ITS ASSOCIATION WITH CARIES INCIDENCE AND ORAL HYGIENE, Edward J. Hyde, September, 1960.

ABSTRACT

Pigmentation of teeth was investigated in a group of 105 children, ages 9 to 19 years. The subjects of this group had been given one application of an 8 per cent aqueous solution of stannous fluoride each 6 months throughout a three-year period, and, in addition, had been using a stannous fluoride dentifrice (Crest). The caries increment in this group when measured by the DMFS index was 63 per cent less than in a control group which received no stannous fluoride treatment and were not using the stannous fluoride dentifrice.

The amount of pigmentation was observed to be greater in the subjects with a high caries experience as measured by the DMFT and DMFS indices. Increased pigmentation even as a normally occurring phenomenon has often been associated with caries arrestment. This seems to be part of a natural resistance reaction against the carious process and naturally hyperpigmented areas of enamel have been shown to be highly resistant to demineralization. Poor oral hygiene was also found to be associated with increased pigmentation. Black pigmentation in particular was observed to be confined to subjects with a lower than average oral hygiene rating.

The surfaces most repeatedly affected by pigmentation were the occlusal surfaces of molars and bicuspids. The labial surfaces of the anteriors were the next most frequently pigmented. Light brown pigmentation accounted for more than half the total number of pigmented surfaces. When the pigmentation rate per tooth was estimated, it was found to increase with the caries experience.

CONCLUSIONS

1. It can be concluded from a review of the literature that increased pigmentation of a lesion in the surface of a tooth is associated with caries arrestment.

2. The amount of pigmented tooth lesions, in the children who received a single topical application of an aqueous solution of 8 per cent stannous fluoride each 6 months plus daily use of the stannous fluoride-containing dentifrice throughout a three-year period, tends to increase according to their previous carious experience.
3. As 62 per cent of the carious lesions of the children of this study failed to increase in size (while 24 per cent of the carious lesions of the control group showed no size increase), the pigmentation observed in this study can be related to caries arrestment.
4. Poor oral hygiene is associated with increased pigmentation. Black pigmentation definitely tends to be confined to subjects whose oral hygiene is less than average. Dark brown pigmentation does not tend to be confined to subjects with less than average oral hygiene.
5. The most frequently pigmented surfaces are the occlusal of the molars and bicuspids and the labial surface of the anterior teeth.

A MICRORADIOGRAPHIC AND X-RAY DENSITOMETRIC STUDY OF CEMENTUM, Narender Nath Soni, March, 1961.

ABSTRACT

From the review of the literature it is clear that organized studies of the morphology of cementum have not been as extensive as studies of other dental tissues. Rockert is the only investigator who has studied cementum by employing a microradiographic approach. Furthermore, it is the author's impression that some of the observations made by Rockert may be incorrect because he used sections of excessive thickness. Therefore, in the present study morphological differences and variations in the degrees of mineralization of human cementum were studied in the plano-parallel ground sections

using microradiographic and X-ray densitometric procedures.

Plano-parallel sections which were used in obtaining contact microradiographs were hand-lapped to a thickness of 10-20 microns. Microradiographs were obtained with a General Electric X-ray unit equipped with a CA-7 Coolidge tube, operated at 15 KV and 25 MA and a target film distance of 11 cm. The radiation was filtered through a 20 microns nickel filter in order to make the resulting radiation monochromatic. The microradiographs were recorded on Eastman Kodak Spectroscopic plates No. 649-O. These plates have an extremely fine grained emulsion capable of reproducing 1,000 lines per millimeter. The X-ray absorption image was studied under the microscope and the resultant photomicrograph is the historadiograph.

Historadiographs revealed bands with high X-ray absorption, separated by alternate bands with low X-ray absorption. These bands were oriented in slightly different directions with respect to one another. The irregularity of these bands varied in thickness and showed a wavelike pattern. Also visible were the radio-lucent remains of the "principal fibres" of the periodontal ligament.

A microdensitometric tracing (a photograph of the cacillo-graph record in the television circuit) of one of the microradiographs revealed great variation in the degree of mineralization in different parts of the same specimen.

CONCLUSIONS

The present study demonstrated the following:

1. In the historadiographs, three types of cementum were distinguishable: (1) the alacunar type (acellular); (2) the lacunar type (cellular); and (3) the intermediate cementum (replacement). The second type contained lacunar elements distributed as small dark spots in varying num-

- bers, in different areas. The third, a very irregular type, probably represented areas of resorption and subsequent replacement of cementum.
2. Semi-calcified remains of the "principal fibres" of the periodontal ligament were visible in some of the historadiographs.
 3. Historadiographs revealed bands with high X-ray absorption, separated by alternate bands with low X-ray absorption. These bands varied in thickness, and showed a wave-like pattern so that they often appeared oriented in slightly different directions with respect to each other. The degree of irregularity of these bands varied in different parts of the cementum.
 4. The alacunar cementum was more highly mineralized than the lacunar type.
 5. A microdensitometric tracing (a photograph of the oscillograph record in the television microscope circuit) revealed an irregular and inconsistent mineralization pattern in the different parts of the cementum.

COMPARISON OF THE EFFECT OF SEROCALCIUM, CARGENOL AND OXYPHOSPHATE OF ZINC CEMENT ON THE EXPOSED PULP, Kamal Dev Thanik, December, 1960.

ABSTRACT

Deep cavities were prepared with a No. 557 carbide steel bur at 6,000 r.p.m. on the labial surfaces of the canine teeth of young dogs. Bases composed of Serocalcium, Cargenol, and oxyphosphate of zinc cement were placed in the deep cavities. The animals were sacrificed at intervals varying from 8 to 28 days after the fillings were placed. Serial histologic section was used to compare the effects on the dentin and pulp of the materials placed in deep cavities.

There was no appreciable difference in the reaction of pulp or marginal dentin to these materials when placed in cavities with 100 micron, or more, thick cavity floors. When the cavity floor was less

than 100 microns, Serocalcium was associated with flattening of the odontoblastic layer and the presence of a calcio-traumatic line; but the odontoblastic and predentin layers were definitely disturbed. Oxyphosphate of zinc cement was associated with a severe pulpal reaction with focal necrosis of the pulp tissue.

Serocalcium is the least irritating capping material when placed over exposed pulps. It was followed by the formation of a dentinoid bridge, in all except one instance, in spite of the fact that the pulps were markedly displaced by the Serocalcium pushed through the exposures. Cargenol, when used to cap exposed pulps, was more irritating than Serocalcium and there was no dentinoid bridge formation except in one case. Oxyphosphate of zinc cement when applied to exposed pulps was the most irritating of the three base materials causing massive destruction of the pulp tissue.

In all of the instances of pulp exposure, there was remarkably little clinical or histologic evidence of hemorrhage, in spite of the fact that the fillings resulted in marked displacement of the marginal pulp tissues.

CONCLUSIONS

1. No appreciable difference in the reaction of pulp or marginal dentin was observed when Serocalcium, Cargenol, and oxyphosphate of zinc cement was placed in deep cavities with intact cavity floors. However, this was true only in those cases where the cavity floor thickness was 100 microns or more.
2. When the cavity floor was less than 100 microns, Serocalcium bases were associated with flattening of the odontoblastic layers and the presence of a calcio-traumatic line in all cases. Cargenol, on the other hand, produced no calcio-traumatic line, but the odontoblastic and predental layers were definitely disturbed in all instances. Where the cavity floor thickness was less than 100 microns, oxy-

phosphate of zinc cement was associated with a severe pulpal reaction with focal necrosis of the pulp adjacent to the base material covered cavity floor.

3. Clinically undetected microscopic pulp exposures occurred in some of the very deep cavities and unless serial histologic section was used, the actual exposures were undetected.
4. Serocalcium compared with Cargenol and oxyphosphate of zinc cement used as a capping material over exposed pulps is the least irritating.
5. Cargenol, when used to cap exposed pulps, was more irritating than Serocalcium. There was no dentinoid bridge formation except in one case.
6. Oxyphosphate of zinc cement is the most irritating capping material of the three tested in this study. It was associated with massive destruction of the pulp tissue in all cases.
7. The blood vessels of the odontoblastic layer are capillary in size, they are in close relation to the odontoblasts, although rarely among them, so that relatively little, if any, hemorrhage of blood occurred following traumatic microscopic exposure of this area.

From the Alumni President

I would like to extend a most cordial invitation to all dentists to attend the annual Fall Conference in Bloomington October 6 and 7. The program this year is outstanding. The scientific portion will include: Dr. John F. Johnston, Dr. Roland W. Dykema, Dr. H. William Gilmore, and Prof. Ralph W. Phillips. Norma Lee Browning, reporter and feature writer for the Chicago Tribune, will headline the Friday evening banquet. This program is somewhat different and I am sure will prove to be a wonderful experience.

Al Yoder, President

HONOR DAY (Continued on page 26)

Fourragers to students with High Honors:

David H. Sawyer

Ralph E. Walls

with honor:

James H. Hornberger

David M. Latz

Ernest W. Scheerer

John D. Williams

James D. Wilson

Arnold M. Wuebbenhorst

Patricia Ann Koss

Carol Ann Mager

C. V. Mosby Awards for proficiency:

Histology—*William C. Rubach*

Operative—*Ralph E. Walls*

Dental Materials—*James R. Platt*

Prosthetics—*Karl W. Gossweiler*

Dental Hygiene—*Carol Ann Mager*

Sigma Phi Alpha honorary society membership:

Patricia Ann Koss

Carol Ann Mager

Indiana State Dental Hygienists Association and American Dental Hygienists Association membership certificate for proficiency in clinical practice:

Patricia Ann Koss



Miss Norma Lee Browning, featured speaker for the alumni program, October 6 and 7.

Who's Who and Where ???

by Paul Starkey, D.D.S.

Another school year has past and the ranks of the Alumni of Indiana University has increased by the graduation of 64 seniors and 8 graduate students. May we take this opportunity to sincerely congratulate them and wish them the very very best in their chosen profession.



R. Quentin Royer and family.

One of Indiana's graduates of whom she is very proud, is the fellow shown above with the sleighful. He is R. Quentin Royer, a graduate of the 1943 class of Indiana University School of Dentistry. After graduation, he served his country with the United States Navy and later through the Mayo Foundation for Medical Education and Research in Rochester, Minnesota, received his M.S. Degree from the University of Minnesota in 1949. He joined the staff of the Mayo Clinic in the Section of Dentistry and Oral Surgery in 1950, where he now teaches and practices the specialty of oral surgery.

Dr. Royer is this year the president of the Minnesota State Dental Association. He has also been an active member of the American Society of Oral Surgeons for the past several years, and is on the Examining Committee and serves on the Advisory Committee to the American Board of Oral Surgeons. Included in the many professional associations to which he belongs are the American Academy of Oral Roentgenology, the American Aca-

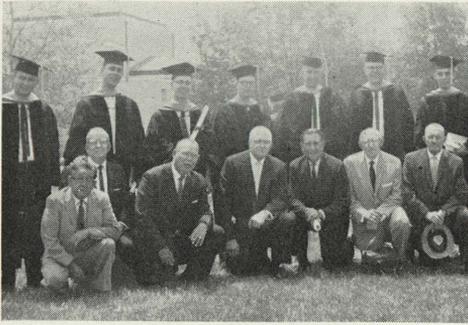
demy of Oral Pathology, the American Association for the Advancement of Science, the American Dental Society of Anesthesiology, the American Dental Association, and also, he is a Fellow in the American College of Dentists and the International College of Dentists.

Aside from his many contributions to his profession, he also finds time to contribute to the civic life of his community. He is a member of the Rotary Club, president of the Rochester Council of Parent's and Teacher's Association, Liaison Officer for the City of Rochester between the School Board and the City Council, member of the Methodist Church, and serves as chairman of the Commission on Education for his church.

The bevy of beautiful ladies in the sleigh with Quent are his wife, Sybil and his four daughters, the two youngest being twins.

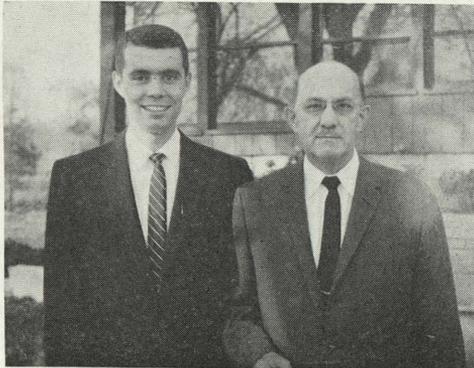
Graduates of 1961 look upon the full life of a graduate of I.U.S.D. just 18 years ago, and note what the profession has to offer in opportunity for service. Dr. R. Quentin Royer sets quite an example, doesn't he?

There are eight graduates of Indiana University School of Dentistry who I strongly feel deserve congratulations and special mention in this column. Three of them are graduates of the Class of 1926; one of the Class of 1927, 1929, 1930, 1931 and 1934. These men are the fathers of eight of the 1961 graduates of Indiana University School of Dentistry. One who has practiced his profession in such a manner as to cause his son to respect him and his profession to the extent that he would make it his life's work, must be very proud and certainly deserves our most sincere congratulations and admiration. After the graduation ceremonies in Bloomington, your columnist met with



Senior graduates with fathers.

these men and their sons for a picture taking session so that you might see them on this page. As these boys introduced me to their fathers, I commented that dad deserved a great deal of credit and should be congratulated. I was touched with the sincerity of each of the sons as they readily agreed while placing their arm around dad's shoulder, or patting his bald head. It was a very warm experience for me on two counts; one, because of the sun, and the other because of the considerable amount of joy, pride and unspoken understanding between fathers and sons.



Dr. S. E. Kroczek and Son, Tom

The elder, Dr. Kroczek, graduated from I.U.S.D. in 1930. He was on the faculty and assistant instructor in dental anatomy and clinical instructor in operative dentistry from 1930-31.

In 1943, he discontinued dental practice for one year to devote full time to revise and design dental instruments. He still will take time to design or improve the design of instruments for all types of cavity preparation.

The younger Dr. Kroczek told me, "Dad did not try to coerce me into studying dentistry. He wanted me to make my own decision. I made the final decision to pursue dentistry as a profession in high school after observing dad in the office and after deep consideration. I felt that this is where I belong."

Father Kroczek practices general dentistry in Hammond, Indiana, and son Tom will enter I.U.'s graduate school this fall to study orthodontics.



Dr. Howard K. Maesaka, Dr. Ray Maesaka and Dr. Clifford Maesaka

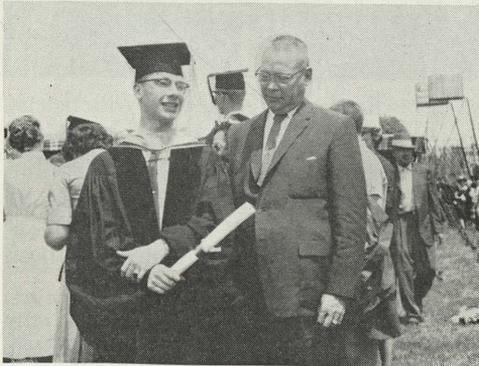
Dr. Howard Maesaka graduated from I.U.S.D. with the Class of 1926. He has practiced dentistry in Wahiawa, Oahu, Hawaii for 35 years. Wahiawa is a town 20 miles from Honolulu, and one mile from Schofield Base, and is in the heart of the pineapple district. The population of Wahiawa is 18,000, not including the service men. Dr. Maesaka has four children.

Frances married Wayne Windsor, an architect. She graduated from Indiana University in 1951 with an A.B. degree.

Dr. Ray graduated from Harvard in 1954 and from I.U.S.D. last year, 1960. He is now Instructor at I.U.S.D. in the Crown and Bridge Department, and also assists in clinical teaching and research in the Pedodontic Department. Dr. John is also a graduate of Harvard in 1957, and Boston University School of Medicine in 1961. Nephew, Urt Maesaka, graduated from Indiana University in 1956 with an

A.B. Degree and an M.A. Degree in Education in 1957. Margaret, Ray's wife, is a graduate of Indiana receiving an M.S. Degree in 1959, and Peggy, Cliff's wife, was awarded an A.B. Degree from Indiana in 1959.

And now, Clifford Maesaka is the second son to receive a D.D.S. Degree from Indiana, making a total of seven Maesakas with degrees from I.U. Dad says, "The Maesakas call Indiana their second home." Dr. Clifford has not yet made a final decision, but probably will go to Honolulu to practice dentistry.

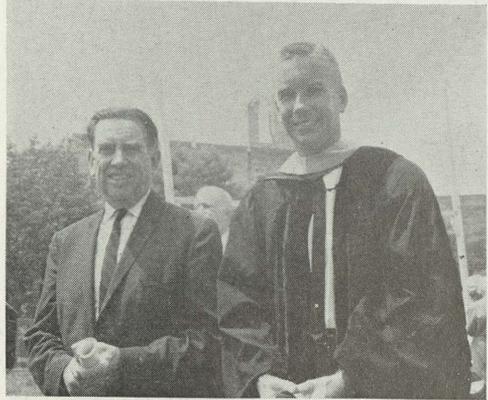


Dr. Samuel L. Border and Son, William

Dr. Samuel L. Border graduated from Warsaw High School in 1928. He attended Indiana Central College in 1929, playing football for his school. The next year, 1930, he studied at the I.U. Extension in Indianapolis and in 1934, graduated from Indiana University School of Dentistry. He practiced dentistry in Monon, Indiana and in Francesville, Indiana from 1935 to 1940, and since 1940, has practiced just in Monon. He is past-president of the West Central Society; was a member of the House of Delegates of the Indiana State Dental Association for two years; is a member of the Pierre Fauchard Academy, and an associate member of the Chicago Dental Society.

Of interest to note is the fact that Dr. Border has 2 registered patent dental devices in the U. S. Patent office. One is for an instrument sharpener and the other for a crown and inlay remover.

Son, Dr. William R. Border graduated from Purdue in 1957 and is a member of this year's I.U.S.D. Class. His brother John Franklin Border is a junior in medical school. Lots of doctors in this family too.



Dr. Harold W. Watts and Son, Bill

Dr. Harold W. Watts, Sr., graduated from the Indiana Dental College with the Class of 1926 and opened his office in Knightstown for the practice of general dentistry and has been there ever since. The elder Dr. Watts' brother, Dr. Kenneth Watts, also graduated with the Class of 1926, and practices in Greenfield, Indiana.

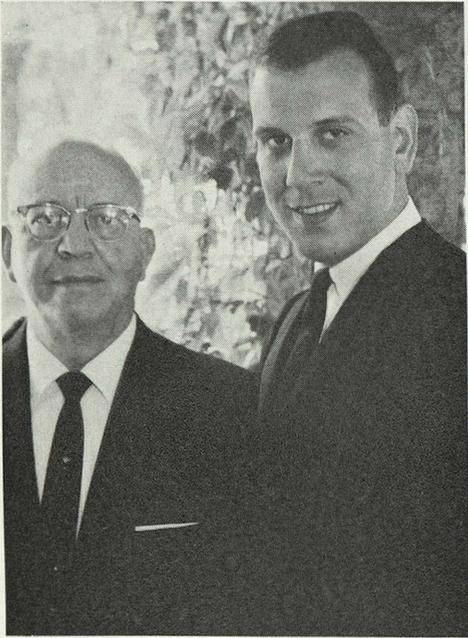
The decision to follow in father's and uncle's footsteps for Dr. H. William Watts, Jr. was made while he was in the service. Through the help of their good friend, Dr. Gerald Timmons, Dean of Temple University Dental School, he was able to enroll in Temple night school and satisfy a majority of his pre-dental requirements. This was done while he was stationed just outside of Philadelphia.

Once the decision was made, it seemed everything fell into place. Dr. Watts, Jr. is a member of this year's graduating class and will practice general dentistry in Columbus, Indiana.

Dr. Marvin D. Smith, Sr. and Son, Marvin

Dr. Marvin D. Smith, Sr., practices at 504 Broadway, Gary, Indiana, and lives on a farm north of Crown Point. He says that his inspiration to study dentistry

came from his brother in Detroit, Michigan, who went to the Belgian Congo as a missionary dentist and medical surgeon.



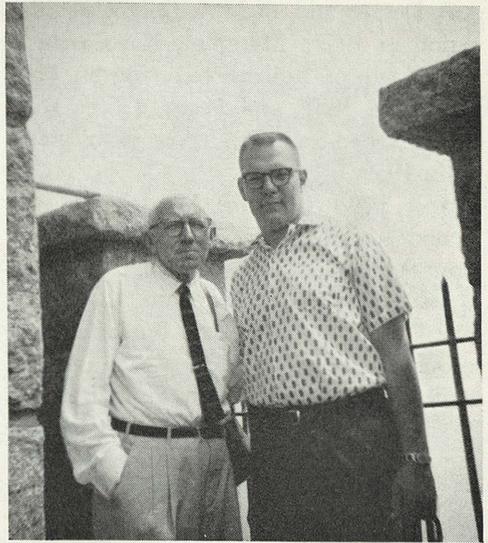
Dr. Smith and son, Marvin

Marvin, Jr., became interested in dentistry through watching his father operate in his office and through admiration for his uncle's interest in humanity. Father Smith said, "It pleases me beyond words to be associated with a young graduate who has acquired all of the latest methods and ideas from the faculty of Indiana University School of Dentistry. Even though older dentists try to keep up, it is about impossible to equal the combination of youth and faculty."

Dr. Smith, Jr., told me, "I have a brother who is a junior student in dentistry. My father says that by the time he graduates he will have been taught things that will be new to both of us."

Dr. W. Alan Crum, Sr., and Son, Alan

Dr. Crum, Sr. is a graduate of I.U.S.D. with the Class of 1927, and has practiced general dentistry in Richmond, Indiana since that time. He has given years of service to organized dentistry, serving as President of the Indiana State Dental As-



Dr. Crum and Alan

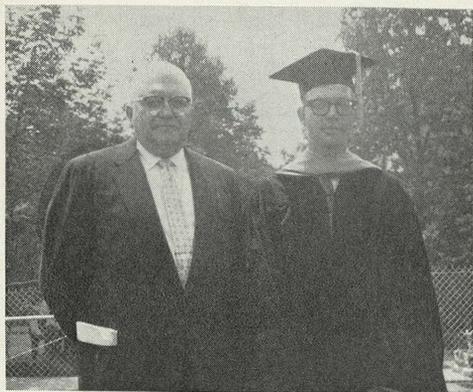
sociation in 1953-54. His interest in our school is evidenced by the fact that he served for three years on the Executive Council of the Indiana University Alumni Association.

Dr. Crum, Jr., told me, "I am the youngest of three brothers. Since my father has had many satisfactions from his chosen profession, he is very pleased and proud to have at least one of us choose the same life's work. However, he left the selection of our vocations up to each of us."

Alan has decided to continue his dental education by accepting the internship in Oral Surgery at Indiana University Medical Center. He became interested in this phase of dentistry in 1954 when he had a double fracture of his mandible while playing football at Miami University, Oxford, Ohio.

Dr. Daniel S. Weaver and Son, Dan

Dr. Weaver, Sr., a native of New Ringgold in Schuylkill County, Pennsylvania, graduated from Indiana University School of Dentistry in 1929. He has practiced dentistry in Connersville, Indiana since that time. He in no way tried to influence his son to study dentistry, nor did he his daughter who is a hygienist. She now



Dr. Weaver and Dan

lives in California and is a graduate of the University of Michigan, Class of 1955.

Dr. Weaver, Sr., tells me that he is very happy that his children decided to follow the profession of their father and particularly happy that his son has decided to begin practice of dentistry in the office adjacent to his. He feels they will mutually benefit from this close association.

Dr. Kesler E. Truelove and Son, Kesler

Dr. Truelove, Sr., attended the Indiana Dental College. 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. Dr. Truelove practiced in the Indianapolis Medical Arts Building for awhile. He was a member of the Reserve Army Medical Corps and in 1934-35, served as a Captain on active duty at Fort Knox and Fort Thomas, Kentucky. Locating then in Gary, Indiana, he has maintained offices there for the practice of general dentistry.

Dr. Truelove, Jr., will be associating with his father in his practice and has hopes of lightening dad's patient load.

A very interesting and happy coincidence is the fact that Dr. H. K. Maesaka of Hawaii, also a member of the Class of 1926, and Dr. Truelove, Sr., have remained friends throughout the years. Their sons have been very close friends throughout their school years. After a

brief visit in Gary, Kesler, Jr. and Clifford Maesaka will say "Aloha" as Clifford, his wife and son return to Hawaii. Once again, too, it will be "Aloha" for the Maesaka and Truelove seniors. Renewing of old acquaintances is probably one of our greatest joys of life, but parting again always brings a little twinge of sorrow down deep inside.

Once again, it has been a pleasure writing this column for you. If you have enjoyed reading it, it would be nice to hear from you. I would also welcome criticisms and suggestions.

Are there any members of your class you have not heard from in a long while, and whom you would like to hear about? If so, write to me and I'll do my best to contact them.

Rossya Berucha Kaufman Scholarship Fund

The family and friends of Rossya Berucha Kaufman have established scholarship fund in her memory. The first scholarship was awarded in June to her friend and classmate, Ann Buche Spedding, for completion of the degree Bachelor of Science in Public Health Dental Hygiene. Any person or group interested in making a contribution may do so by sending a check designated for the fund to the Indiana University Foundation.



Miss Fisk awards initial scholarship to Ann Spedding.

Dental Hygiene

A. Rebekah Fisk

On successful passage of their state board examinations the 1961 Dental Hygiene graduates will be associated in practice as follows:

Bloomington

Ruth H. Hacker—Dr. John G. Baranko and Dr. Donald C. Tyte

Fort Wayne

Linda R. Munyon—Dr. Richard C. Glassley and Dr. Emory W. Bryan
Karel L. Engle—Dr. Ralph G. Merkle and Dr. George L. Ertzinger

Indianapolis

Charlotte H. Levan—Dr. Edwin E. Pollack and Dr. John J. Stone

Sarah E. Perkins—Dr. Harrison E. Cole
Mary Frances Yager—Dr. John E. Matthews

Patricia J. Yotter—Dr. Thomas H. Beavers

Phyllis J. Ordway—Dr. Robert J. Johnson

Patricia A. Koss—Dr. Walker Kemper

Marion

Donna S. Ross—Dr. Donald D. Brown

South Bend

Carol A. Mager—Dr. William McCloughan

Those who will practice in other states are Sheri Sue Abrams—California, Cheryl B. Johnson—Illinois, Sharon K. Wegner—Michigan. Alice A. Schmitt will continue her education.

It is with deep regret that we inform the classmates and friends of Jane Rutledge Jacks, D.H. '55, of her sudden death following surgery on August 23, 1961 in South Bend, Indiana. Jane is survived by her husband and two daughters.

POST GRADUATE SEMINAR

The Post Graduate Seminar which was held March 15th and 16th was attended by sixty-two dental hygienists from five states. We felt that the program was well received and everyone seemed to enjoy being back in school. We would appreciate your suggestions for a program for the next seminar which will probably be in March, 1963.

Class and Fraternity Notes

FRESHMAN CLASS

January to June found the freshman class lunging forward in its quest for knowledge and zest for social events. Shortly after entrenching for the second semester, the class set aside a free weekend whereby ivorine carvings, head and neck anatomy, and physiology were shelved for a stag party. Typical esprit de corps was shown by the presentation of a new series of skits and an all new class combo.

However, many weeks passed and much excitation of the gray matter took place before the class was able to schedule the big social event of the year—a spring outing with wives and dates. A private park was rented, various sports activities were planned, barbecue was prepared and the big day was closed with campfire singing and dancing until midnight.

The temptations of the 500 Speedway trials and the inviting golf greens brought much

frustration during the close of the semester and finals. Nevertheless, most classmates kept to the books and frantically completed gold crowns to end the semester and then scattered to summer jobs in order to fill the pockets with change for the coming year.

Curtis V. Clark

SOPHOMORE CLASS

The Class of 1963 began the semester by winning the Medical Center basketball tournament for the second year in succession. The trophy can be seen in the display case outside the library. After the tournament we all settled down to study for mid-terms and national boards. That was a busy week for all.

The freshman class challenged us to a softball game, and we accepted. It seems that the freshmen conceded after four innings. Technic work seemed to come from every direction. I'm sure that Dr. Johnston will rest much more easily when that last bridge is on his desk.

For the amount of work that was still to be completed finals arrived much too soon. The class was not too tired, however, to get together for an informal relaxation party after the last final. The most important event of the year occurred just the other day. We got our first notice that was addressed "to the junior class."

Sam W. Heltzel

JUNIOR CLASS

The junior class has been working very hard this year to finish the necessary requirements before advancing into the senior year. Having completed our final battery of tests, the majority of the class is taking a short vacation before starting into the hot sultry summer session.

Due to our school work and extracurricular activities, the class social functions have been neglected this spring. We are planning a more extensive social calendar for next fall. However, to start the summer off right, we planned a stag and a picnic on the weekend of June 10th.

A large number of our classmates have become proud "papas" for the first time or again this spring. Cigars seem to be a weekly occurrence. Thank goodness graduation is coming a little closer so that these new additions may someday be afforded!

A few more of our single men are taking the big step this summer, leaving only twelve single males in our class of seventy.

The junior year has been very gratifying and fruitful and we are all looking forward to a prosperous senior year.

Vern Ketner

SENIOR CLASS

In a few days the end of a four-year dream will become reality, and sixty-five new dentists will assume a position in their chosen profession. There were times in the past when we thought this day would never come. Now, as the last requirements are completed, the end is clearly in sight.

The last semester has been a busy one, with requirements, speakers, equipment displays and parties. The final two days of the national board exams as well as the "mock" board, are behind us. The latter was very helpful in showing the importance of organization for the coming state board. The high light of the semester was the traditional "Razz" Banquet, which was held May 23rd at the Moose Home in Glen's Valley. The "razz" was followed by the presentation of awards to two members of the faculty. Dr. H. William Gilmore, Chairman of the Department of Operative Dentistry, was honored by the class as the Instructor of the Year. An additional award was presented to Dr. Glen O. Sagraves, Director of the Clinics, in recognition of his efforts in seeing that patients which satisfied graduation requirements were guided into the proper hands.

The class extends a sincere "Thank You" to all members of the faculty. Already we realize how fortunate we are to have been taught by a faculty of such high caliber. Our thanks is also extended to the staff which, in all their varied duties, has helped us successfully complete the last four years.

Where are we going from here? Now that the armed forces are again knocking on the door, several members of the class will have no choice. A few have elected to fulfill their obligation through public health programs. Since the individual plans are too varied to enumerate, suffice it to say that the coming year will find members of the Class of 1961 located from Hawaii to Guantanamo, Cuba and from an Indian reservation in Montana to an army base in Japan. Each department at I.U.S.D. will receive at least one representative from the class either in the capacity as graduate student or instructor. The remaining class members will establish offices about the state and nation.

With what we hope will be the successful completion of the state board, we will say goodbye to the Indiana University School of

Dentistry. May we always reflect credit upon the dental profession and upon the school which has provided us with such a solid foundation upon which to build a successful practice.

Ralph E. Walls

ALPHA OMEGA

This past school season has witnessed an increase in the membership of Alpha Omega. The fraternity now boasts a roster of eight men. There is a close relationship between the undergraduate and alumni groups. Once each month the alumni chapter conducts a study group dinner to which outstanding men of dentistry and medicine are invited to speak. Many men of the dental and medical schools have participated in this study group.

The undergraduate chapter has also inaugurated a dental laboratory which is housed in the office of Dr. M. Stoner. This laboratory is equipped with all the necessary equipment.

An annual event of the fraternity is the Senior Farewell Banquet. At this time all graduating seniors are honored by the alumni. Although there were no graduating seniors this year, the fraternity decided to have the affair as usual and a wonderful evening was had by all at the Broadmoor Country Club. Guests of honor were Dr. and Mrs. Drexell Boyd. Dr. Boyd was presented with the Alpha Omega plaque for his service to dentistry and to the fraternity. Dr. and Mrs. Maynard K. Hine were unable to attend and were missed by all.

New officers of the undergraduate chapter are Myron Kasle, president; Bill Rosenstein, treasurer; and Stephen Bailie, secretary.

Myron Kasle

DELTA SIGMA DELTA

The past school year has seen a resurgence of the activity and enthusiasm sparked by the recently retired officers. These men worked untiringly in behalf of the chapter and their devotion has been noted with approbation by alumni, faculty and members of the chapter. Their efforts were seen in the large percentage of freshmen desiring to pledge Delta Sigma Delta, the greatly reconditioned chapter house boasting new recreation equipment, paint, laboratory facilities, more men desiring to live in the house and in the significant rise in that ill-defined quality, "chapter tone."

The newly elected officers to serve in 1961-1962 are as follows: Grand Master, James Jinks; Worthy Master, Dale Benefiel; Scribe, Raymond Klein; Treasurer, Norman Chamber-

lain; Historian, James Dice; Senior Page, John Ring; Junior Page, Alan Corns; Tyler, John Osborne.

Other formal business of the spring semester included initiation of 22 new members into the undergraduate chapter and 28 seniors were welcomed into the Supreme Chapter. The long-standing maintenance problem of the chapter house was solved by the hiring of a maid.

School closed out the spring term with the usual, hectic rush, many nocturnal hours being spent in the laboratory completing requirements and reviewing "test files."

Scattered throughout the vernal equinox were a few "relaxing periods" including a Pajama Game dance, an American dance (this called for coat and tie), the Delt Wives Western Casino Party and dance, and several speakers on diverse topics ranging from Communism to Chrome-Cobalt Alloys and their uses.

Late in April we sent a delegation to the Delta Sigma Delta Regional Conclave in Louisville, Kentucky. These men returned with many new thoughts and ideas concerning this meeting which is to be held here next year.

On May 6th, our annual Hawaiian dance exploded in the normally placid neighborhood surrounding the chapter house. Those passing-by were most intrigued by a suspension bridge, an extremely wet waterfall drenching those entering the front door via the bridge, tango torches, and a small, but effective, pond in the dining room.

Our annual golf tournament had 30 brothers participating, with the added assistance of liquid refreshments. The winning team, playing a best-ball match, came in with a 6-under score. Following the tournament, a filling feast of beans, cornbread and beer were served at the house and the seniors completed their tradition of enscribing their names on the "old oaken door."

Among the events this summer are several weddings of the brothers, further refreshing of the chapter house, a new rush program planning, and reorganization of the "files." We are looking ahead and planning toward another fruitful year at Xi Chapter with much fervor.

Jim Jinks

PSI OMEGA

We at Psi Omega, have regularly scheduled events each month which includes a business meeting.

The activities of Psi Omega during the second semester were not to be surpassed by

those of the first. In February a special events program was held in which our members and pledges saw a movie on the 1960 Masters Golf Tournament. Also that month, the wives' club graciously contributed to our house by painting the main foyer and presenting us with cushioned benches which were placed along the walls of the foyer.

During the month of March, our St. Patrick's Day dance was held and again our thanks go to the wives' club for their help in making it a success.

April was a busy month at the Psi Omega house. On April 11 our new officers for the coming year were elected with Richard Fox heading our fraternity as grand master. Formal initiation was held the following Saturday evening for our fine pledge class of fifteen men. They were honored that evening with an invitation dance. Also of special interest that month, an informative film and tape on meeting, a chapter dance and a special events "Communism on the Map" was presented.

Our Senior Banquet and farewell on May 6th was held again this year at the Marott Hotel. As always the dinner was delicious and after dinner speeches which were given by the seniors were both informative and entertaining. Our annual outing at Dr. J. Frank Hall's, held this year on May 9th, was again a roaring success, as it has always been in the past. Many thanks and appreciation are extended to Dr. Hall.

Our new officers were officially installed on May 16th and took over their new positions for the coming year. Our new officers this year are: Richard Fox, president; Bob Irwin, vice president; Don Sheller, secretary; and Tom Sherman, treasurer. We extend our welcome to the alumni and hope that you will drop by and visit our house this summer and next year.

Don Sheller

SIGMA PHI ALPHA

Theta Chapter of Sigma Phi Alpha held its annual meeting at 4:00 p.m., Sunday, May 15th in Parlor E at the Claypool Hotel. As the president, Pauline Revers, was absent, Anne Ackerman, vice-president, presided. Seven members and two guests were present.

A report of the meeting of Supreme Chapter which was held in Boston, March 27th, was given by Rebekah Fisk. There are now twenty-one component chapters and a membership of 600, which is double that of last year, and a sizable treasury of \$2,700.

Sigma Phi Alpha is now listed in Leland's Annual Fraternity and Sorority Directory. This directory lists all college fraternities and sororities, with the date and place of founding, together with an illustration of the coat of arms, number of chapters and members, and the names of all national officers.

The business meeting was conducted as a workshop on the new Constitution and By-laws, copies of which had been sent to all delegates for review. Therefore, each delegate was able to come to the meeting informed and prepared to discuss the various changes, a great deal was accomplished in a few hours and the revised Constitution and By-laws was adopted before the meeting adjourned. It was agreed that each chapter should receive 25 copies for their members without charge but that a small charge should be made for additional copies to defray expenses.

The business meeting was followed by a luncheon, attended by 102 members. The speaker was Mr. Robert Moody who talked about Old Boston. Dr. F. W. Strang, Director of the Fones School for Dental Hygienists, and one of the faculty of the original school started by Dr. Arthur Fones, was made an honorary member.

Mrs. Janet Burnham, executive secretary, who had requested that her office be given to someone else, was presented with a Paul Revere bowl as a token of appreciation for the work she had done in organizing Sigma Phi Alpha. Janet is now at Dalhousie University in Nova Scotia organizing a new school for dental hygienists.

Those elected to office for the coming year are:

PresidentAnn Spedding
 President-electMarilyn Smith
 Vice-PresidentPhyllis Rhodes
 Secretary-Treasurer ..Anne Ackerman



Dean Hine presents the Block Drug Company Special Essay Award of \$100 to John E. Regan at Honor Day Program. An abstract of this paper appears on page 51 of this issue of the Alumni Bulletin.

A Biographical Sketch of Ivan A. Welborn

by Curtis V. Clark, Larry Grabhorn, Frederick Robbins, and Thomas Weinzapfel

One of the assignments in the Freshman History and Ethics course is a biographical sketch of a living personality who has contributed to the advancement of present-day dentistry. The class is divided into groups of four or five students, each group is given an assignment, and it is a group responsibility to obtain all possible information by interview or letter, or from the literature.

The freshmen students who were asked to write Mr. Welborn were so impressed by his letter to them they asked permission of the instructor to submit it without changes. Because there is so much in this biography which is of interest to the alumni of Indiana University School of Dentistry, so much which has influenced the growth of dentistry in Indiana and the nation, it will be published serially in the Bulletin.

R.W.P.

I uttered my first worldly protest early in the morning of April 25, 1899. This individualistic expression occurred in the "old brick house," a scant half mile northwest of Carmel, Indiana. Within or near this hamlet resided four grandparents, five aunts, three uncles, surrounded by an unlimited number of cousins. Some conflicting rumors persist among the above-mentioned group regarding my early years. The only pictorial evidence in support of some of these allegations is one of me in a wash bowl. My parents did not possess a bear skin rug.

Within the next twenty-one years I was followed by six sisters and three brothers. Four of those sisters and the three brothers reached maturity.

At birth I became a birthright member of The Society of Friends, commonly known as Quakers. This type of membership no longer exists as the Quakers believe each individual should have free choice regarding the desire for membership. I still retain my membership but at the time I enlisted during the First World War, the monthly meeting seriously considered relieving me of my responsibility.

Late in 1904 my parents spent a short time in Memphis, Tennessee. Early in 1905 we moved to a small town in the Yazoo river valley of Mississippi. My father was manager of a saw mill which took the first cypress lumber out of that area. This was definitely a frontier, entirely different from that depicted presently on film and television. It is extremely doubtful if this frontier will ever be placed on film for sometimes a week or more would elapse without a "razor cuttin'" or a shooting worthy of mention.

1906 found us back in Carmel, Indiana. I spent a portion of the summer trying to recover from malaria and facing the prospect of school that fall. At the start of school it soon became apparent my most immediate and pressing problem was to get rid of my Mississippi dialect. Of my first four teachers, three were related to me—two being aunts and one a cousin. Whether this was an asset or a liability the older members of the family have never been able to agree. Members on each side of the opposing factions still stand ready to mention certain facts and sometimes fiction in support of each theory.

In 1912 came my introduction to the one room school house. It was known as Bear Slide School and was in Boone County, Indiana. My eldest brother and I had to walk one and three-fourths miles twice each day to reap the benefits of this seat of learning. On the first day of school I learned I was the only pupil in the seventh grade, although there were four in the eighth grade. It is doubtful if our teacher subscribed to the ideas of John Dewey, who is said to have advocated progressive education in schools. It is also equally doubtful that I was a suitable candidate for these methods. However, the teacher, more in the interest of self-preservation, (since she had to teach all

grades) suggested that I join the eighth grade. I had always enjoyed reading, so there was no great problem there, but she did suggest that I should study seventh and eighth grade arithmetic this year. In order to graduate from the eighth grade, it was necessary to take a written examination given by the County Superintendent of Schools. I was successful the following spring in securing my certificate.

In the fall of 1913 I started high school at Zionsville, Indiana. In 1914 it was Westfield, Indiana, due to circumstances beyond my control. The fall of 1915 found me back in high school at Carmel, Indiana. I was not too popular with some of the students whom I had been in grade school with earlier, for now I was one grade ahead of them. One Quaker girl in this high school class apparently did not find this too distasteful. Her name was Edna Jones. We were married six years later.

About the middle of the 1915 year my family moved to New Castle, Indiana, and I found myself enrolled in a fourth high school. As a new member of this group I soon became aware of an articulate and occasionally vociferous class member whose personality found popularity with most of his classmates. His name was John F. Johnston.

The summer of 1916 found me working in the Maxwell Automobile factory in New Castle. I have always claimed a share of Jack Benny's success is due to my efforts there. If I did not work on his venerable vehicle I did work on many which would meet all his requirements.

1917 was a busy year. During this year I borrowed seventy-five dollars from my grandfather and took a business course from a private concern in addition to my senior high school studies. My business course consisted of shorthand, typing, and spelling. Such subjects were not then taught in high schools. Before graduation I was employed by one of the local banks at thirty dollars per month. My duties at times required me to assist the janitor, at

other times it was the cashier, and occasionally the president. One of the other employees was an old man whom we will call Uncle Ben. Come to think of it, I doubt if he was any older than I am now. At any rate his previous experience did not embrace banking, for he made lots of mistakes, which is one thing banks frowned upon then as now. One day the president of the bank called me to his desk and said, "Uncle Ben owns so much stock in the bank I cannot dismiss him nor reprimand him. The thing I am going to do is call you, Uncle Ben, and the cashier into my office and give you a very stern lecture regarding accuracy and promptness." A short time later the president, with as stern a face as when giving a "no" answer to a prospective borrower, delivered the promised message. After it was over Uncle Ben stepped forward, gave me a fatherly pat on the shoulder and trying to emulate the president's sternness said, "Ivan, in the future try to do better." I have always told myself that the bank's merger after my departure was in no way connected with my employment there nor with my leaving.

The sounds and stories of war were steadily becoming more a part of our lives. In the fall of 1918 I entered Purdue University as a prospective civil engineer with the intention of enlisting in the Students' Army Training Corps there as soon as it was formed. My induction into the S.A.T.C. took place in October of 1918. In support of my decision to join the S.A.T.C., I would like to come forth with some chest thumping Fourth of July oratory, but I am afraid the motivating factor in my decision was to get some college training at government expense. We found barracks, uniforms, and rifles awaiting our initiation. We had army officers training us, and they seemed to have the novel idea that army training should have precedence. Our college professors, based upon some years of experience, felt that college study and training was paramount to army training. We on the receiving

end, pointed to the fallacies in both groups. Less than ninety days after Dr. Johnston at Indiana and I, together with about half a million others throughout the United States, joined the S.A.T.C. Kaiser Wilhelm very wisely decided it would be better to surrender, rather than have the likes of us add to the already widespread confusion in Europe.

Purdue also was anxious to forget this period I understand they have even obliterated every trace of Stuart athletic field which was adjacent to our barracks. My chief regret is that I never learned the name of the character who selected bearded wheat and rye straw for us to use in filling the ticks used on our army cots.

In December of 1918 my most pressing problem was to find a job. While visiting my cousin, Mr. M. J. Newlin, in Indianapolis, he suggested that we might inquire at his place of employment. He had been working in the A. E. Ingersoll Dental Laboratory for about two years. This was a "plate" laboratory. The building was located in the southeast quadrant of Monument Circle in Indianapolis and his was a back room. The building had a rear stairway into the alley. Just opposite our alley entrance was a saloon. I was told the saloon was the chief reason the laboratory was located there. For then it was the mark of a good dentist for his patients to see him enter a saloon, but if the patients ever suspected he had his laboratory work performed outside his office the dentist was viewed with a great deal of suspicion. The above arrangement made it possible for the dentist to assure any patient who might see him going down the alley that he was only going for a drink and not patronizing a plate laboratory. Ludicrous as this logic sounds we have not progressed too far even yet. Today a very large percentage of dentists assure their patients that they do all their own laboratory work, whereas, statistics

indicate that more than 90 per cent of all laboratory procedures are performed outside dental offices. My first day's work in the Ingersoll Laboratory was on January 1, 1919. No one questioned the sensibility of working on New Year's Day, for after all, had not almost everyone had an extra full day off only a week before? For my first week's work I was paid almost five dollars. The laboratory consisted of two small rooms. The first room held a dust and paper covered desk, and a drinking fountain nurtured by a five gallon bottle. The second room boasted a motor-driven drive shaft, which supplied sanding and polishing power together with a vulcanizer. The north wall, which was without windows, supported an almost ceiling-high pile of junk representing several years of undistributed accumulation. In the far corner on a low table stood a five gallon wooden bucket of water. My cousin and I wore overalls and painters' caps, which gave some theoretical protection against a considerable cloud of rubber and pumice dust. The laboratory had no running water.

The morning mail, which we called for at the post office, usually consisted of several boxes containing plaster impressions and "biscuit or mush" bites. It was standard procedure to mail out in the evening the finished "plates" received that morning.

After several weeks, Mr. Ingersoll doubtless felt one boy would only be half as much trouble as two boys and should produce almost as many plates as the two of us accomplished. Mr. Newlin did not agree with this altruistic line of thinking so he became manager of the plate department at the West Laboratory in the K. of P. Building. The laboratory was owned and operated by Dr. C. W. West who was as fine, intelligent and cheerful a gentleman as one could hope to meet.

(to be continued next issue)

An Evaluation of Findings In Fifty-Seven Cadavers*

Although gross anatomy has been taught by the use of cadavers for generations, systematic and detailed studies of this material for pathosis have been few. This paper reports a study which was designed to locate pathosis, evaluate roentgenographic findings, and note anatomical relationships of the oral and paraoral structures in conjunction with other areas of specific interests in cadavers.

The project was conducted over a year's time in which fifty-seven cadavers, available at the Indiana University Medical Center were evaluated. The specific areas investigated involved the alveolar crest height determinations from roentgenograms, roentgenographic interpretation of the maxillary sinus, body response to chronic pulpal infection, radiolucencies found in cadavers, cephalometric relationships of the masseter muscle, and an evaluation of the anterior palatine nerve block technique.

The results from these studies provided further insight for better anatomical, roentgenographic, and clinical diagnostic interpretation. It was also shown that a considerable amount of clinically applicable information can be obtained from such studies, since few sources so closely related to actual clinical observations can be so thoroughly examined.

This paper but scratches the surface of the avenues of interests and information contained within this material. It is hoped, however, that, perhaps, a basis and stimulus are established for continued research in this field. It is from such basic knowledge that we endeavor to develop more exacting clinical methods for the benefit of all.

* Abstract of senior essay paper which was awarded first prize. Written by Dr. John E. Regan.

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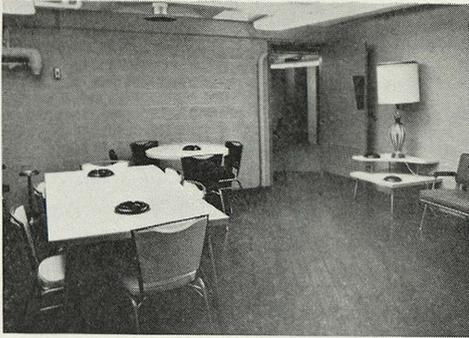
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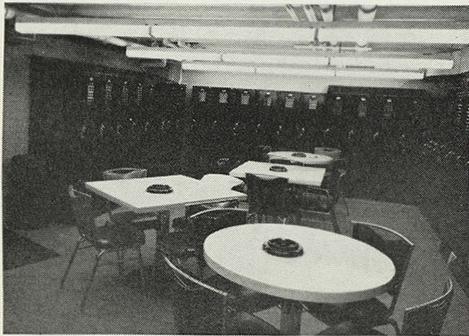
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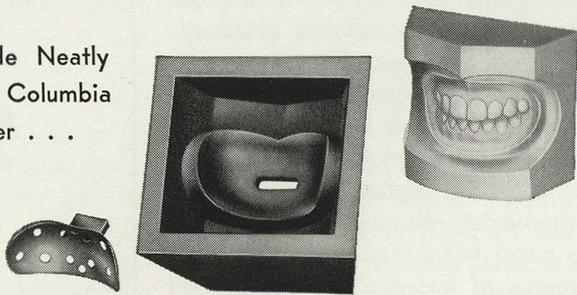
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