

Twenty-Second Annual Meeting

April 29, 30, May 1, 2, 1965

Sheraton-Cadillac Hotel
DETROIT, MICHIGAN

GREETINGS

TO THE TWENTY-SECOND ANNUAL MEETING OF THE AMERICAN ASSOCIATION OF ENDODONTISTS

To each of you, I extend a most cordial welcome and greeting to our Twenty-Second Annual Meeting. It is my hope that your attendance to this meeting will be both pleasurable and beneficial.

Emerson once described a weed as a plant whose virtues have not been discovered. During this past year, our American Board of Endodontics was given official approval by the American Dental Association so that the recognition accorded endodontics as a special area of dental practice may be properly implemented. Since so many of us have been participants rather than spectators in this transition of endodontics, I feel certain that you share with me the pleasure of having successfully achieved this long desired goal for dentistry and endodontics. So, in an Emersonian sense, we have been finally discovered.

I am privileged to extend our collective thanks to the officers, and to the chairmen and their respective committees for their devoted interest and effort in making this meeting possible. Within the covers of this program appear the end results of months of planning and accomplishment to provide us with the most current information from the most qualitative sources available. When these few days are past, I trust that you will return safely home, refreshed and stimulated by your attendance and visit with us here.

J. B. Freedland President

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10:30	The Use of Stainless Steel Files as a Root Filling Material. A. J. Sampeck, D.D.S., M.S.	16, 23
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Special Events

THURSDAY EVENING

- Pre-Meeting Registration Foyer
- Social Hour 6:00 8:00 P.M.
 Grand Ball Room
 "Evening in Canada"

FRIDAY

- Orientation Breakfast For New Members 7:15 8:15 A.M.
 Reception Room
 - Luncheon With Learning 12:15 2:00 P.M.
 Crystal Ballroom
 - Ladies Program

 Ford Motor Company Greenfield Village

SATURDAY

- Luncheon With The Essayists 12:00 2:00 P.M.
 Crystal Ballroom
 - Ladies Program
 Sightseeing and Shopping in Canada
 - Cocktail Hour 6:00 7:00 P.M.
 - Banquet 7:00 P.M.
 Crystal Ballroom

Tickets for luncheons and banquet available at Registration Desk.

OFFICERS OF THE AMERICAN ASSOCIATION OF ENDODONTISTS

EXECUTIVE COMMITTEE

1967

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JAMES W. BYNUM

1966

F. JAMES MARSHALL
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1965

ALFRED L. FRANK LOUIS C. SIEGEL

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Immediate Past President JAMES H. SHERARD, JR.

PAST PRESIDENTS

*W. CLYDE DAVIS	1943
RALPH F. SOMMER	1944
ROBERT G. KESEL	1945
*E. G. VAN VALEY	1946
MAYNARD K. HINE	1947
LOUIS I. GROSSMAN	1948
*ELMER A. JASPER	1949
*RAYMOND L. GIRARDOT	1950
*GEORGE G. SHARP	1951
F. D. OSTRANDER	1952
L. A. LUCAS	1953
N. WEIR BURKMAN	1954
HARRY J. HEALEY	1955
JOHN R. PEAR	1956
GEORGE C. HARE	1957
GEORGE G. STEWART	1958
J. HENRY KAISER	1959
PAUL P. SHERWOOD	1960
GLEN R. BROOKS	1961
VINCENT B. MILAS	1962
JAMES H. SHERARD, JR	1963
*Deceased	

FRIDAY MORNING, APRIL 30, 1965

8:00 - 9:30 - Registration

FOUNDERS ROOM

8:30 — Greetings

J. B. FREEDLAND, PRESIDENT

8:30 - 9:15 - Report on the Endodontic Workshop

9:15 - 10:15

Moderator: Louis I. Grossman, D.D.S., Dr. Med. Dent., Philadelphia, Pa.

X-ray Microscopy of the Periodontal and Dental Pulp Vessels in the Monkey and Human

Essayist: R. L. DE C. H. SAUNDERS, M.D., FRS(E), Institute Rocha Cabral, Lisbon, Portugal

Abstract: Direct observations of blood vessels within the jaw and the dental pulp in the living animal by optical microscopy is limited because of technical difficulties. In addition, standard radiography also has a limited use in the study of such vessels since it provides inadequate resolution with resultant loss of vascular detail.

By applying microangiographic technics in conjunction with contact and projection x-ray microscopy it has been possible to record the vascular patterns within the teeth and in the jaw. The vascular features of the human adult dental pulp will be demonstrated, as well as certain variations and regressive changes.

See page 18 for Biographic Sketch.

10:15 - 10:45

Distribution of Nerves in Human Teeth

Essayist: James Avery, D.D.S., Ph.D., University of Michigan

Abstract: Several large trunks of nerves are located centrally in each pulp canal and these are usually observed before the teeth are completely formed. These trunks branch out and extend peripherally to form a network of nerve fibers in the sub-odontoblastic region that terminate among the odontoblasts and possibly in the dentinal tubules. Impulses pass centrally from the dentin to the centrally located nerve trunks. As the age of the tooth increases the pulp chamber decreases in size. Thus the neural bundles become more evident due to a decrease

in the space. At this time the fiber bundles appear embedded in intertubular locations in the predentin and other fiber bundles become displaced by reparative dentin.

See page 18 for Biographic Sketch.

10:45 - 11:45

Physiological Analysis of Sensory Mechanisms in Dentin

Essayist: Donald Scott, Jr., Ph.D., School of Medicine, University of Pennsylvania

Abstract: Structural and physiological evidence indicates that probably only one type of receptor is present in the dentin of the tooth. This is probably located in the uncalcified layer. While most observers agree that the sensation subserved by this unit is that of pain, animal experiments have shown that it can be excited either by hot or cold, pressure, or certain chemical agents. Recording the electrical activity of a single receptor shows that its excitation depends on a depolarization of the active membrane which leads to the elicitation of a series of impulses in the single sensory neuron. The process of evoking such impulses in response to hot and cold stimulation appears to be quite different and may take place at a different region of a single receptor. Study of the effect of drugs on the membrane potential of the receptor gives a significant insight into their mode of action.

See page 19 for Biographic Sketch.

Discusser: George Stewart, D.D.S., School of Dental Medicine, University of Pennsylvania

11:45 - 12:15

The Hollow Tube Concept

Essayist: Melvin Goldman, D.D.S., Tufts University, School of Dentistry

Abstract: The observations in this investigation will attempt to test the validity of the "Hollow Tube" hypothesis promulgated by Rickert and Dixon. Plastic tubes and rods were implanted in guinea pigs and rats. Some of these tubes contained tetrazolium salts, a chemical agent which turns blue when it comes in contact with a reducing enzyme. Tubes without the chemical agent, steel hypodermic needles and rods were also used for comparative evaluation. Microscopic and macroscopic examination were made to determine what happens around the end of a hollow tube after varying periods of time.

See page 19 for Biographic Sketch.

12:15 - 2:15 P.M.

LUNCHEON WITH LEARNING CRYSTAL BALLROOM

Clinician Topic IRVING ABRAMSON The teaching of Endodontics at the undergraduate level. E. I. Best Endodontics under general anaesthesia. HARRY BLECHMAN The relationship of bacteriology to endodontic practice. NEAL W. CHILTON The inter-relationship of endodontics and periodontics. L. IRVING EPSTEIN Surgical procedures in endodontics. 1. Fox Endodontics as a hospital service. ALFRED FRANK Improvement of the crown-root ratio by means of endodontic intraosseous implants. FRED N. GARBER The significance of periapical radiolucency. DUDLEY H. GLICK Oral and facial pain. D. GOODMAN Elective replantation. Endodontic teaching at the graduate level. LOUIS I. GROSSMAN JAMES GUTTUSO Root canal sealing materials.

(Continued on next page)

12:15 - 2:15 P.M.

LUNCHEON WITH LEARNING CRYSTAL BALLROOM

Clinician	Topic
George C. Hare	The endodontist, dentist, and patient relation- ship in endodontic practice.
MICHAEL E. HEUER	Endodontic instruments.
J. HENRY KAISER	Pulpotomy and its place in Endodontics.
F. James Marshall	The importance of patient history in endo- dontics.
S. James Matsura	The root end amalgam technique.
RICHARD MOODNIK	A biological approach to endodontics.
D. R. Morse	Analgesia in endodontic practice.
Edwin B. Nutting	Bleaching of the endodontically treated tooth.
SEYMOUR OLIET	Integrated endodontic-periodontic therapy.
EDWARD C. PENICK	Root resorption and its relationship in the practice of endodontics.
Bernard Rabinowitch	Root canal therapy in the primary dentition.
J. Rickles	Extending the benefits from Endodontics by means of amalgam or gold copings in severely mutilated teeth.
SAMUEL TURKENKOPF	Is there a need for bacteriological control in

endodontic practice?

FRIDAY AFTERNOON

2:15 - 3:15

Moderator: F. D. OSTRANDER, D.D.S., Ann Arbor, Michigan

A Possible New Approach to the Root Filling Problem

Essayist: Birger Nygaard Ostby, D.D.S., Ph.D., Oslo University, Oslo, Norway

Abstract: A series of experimental clinical and histological investigations indicate that the problem of filling root canals adequately in necrotic cases can be solved in an unorthodox manner. It appears as if a blood clot in the apical part of the root canal, under certain circumstances becomes organized into fibrous connective tissue. The possibility of utilizing this phenomenon to overcome the difficulties in obtaining a complete seal of the foramen will be discussed on the basis of animal autopsy and human biopsy material.

See page 19 for Biographic Sketch.

3:15 - 4:15

Endodontic Failures

Essayist: Samuel Seltzer, D.D.S., School of Dental Medicine, University of Pennsylvania

Abstract: Approximately 150 endodontically treated teeth and/or periapical lesions were examined histologically. Correlations of the clinical, roentgenographic and histologic findings were attempted in an effort to uncover causes for endodontic treatment failures. Some interesting and significant facts have been disclosed

See page 20 for Biographic Sketch.

4:15 - 5:15

Biology of the Dental Pulp

Essayist: Harold Stanley, D.D.S., M.Sc., National Institutes of Health, Bethesda, Md.

Abstract: The healing capacity of the dental pulp to restorative procedures, filling materials and the application of steroid medicaments will be evaluated. In addition, recent investigations on the comparative results of pulp exposures in germ free and conventional animals will also be presented.

See page 21 for Biographic Sketch.

SATURDAY MORNING, MAY 1, 1965

FOUNDERS ROOM

9:00 - 9:40

Moderator: John I. Ingle, D.D.S., Los Angeles, California.

The Inter-Relationship of Pulp and Periodontal Disease

Essayist: Murray Ziontz, D.D.S., Stamford, Conn.

Abstract: A histologic study of over 200 periodontally involved teeth revealed numerous lateral and accessory canals, especially in the furcation regions of molars. These teeth exhibited pulp degeneration, narrowing of the root canals and focal areas of inflammation. The inflamed areas in the pulp were particularly noted near the orifices of the lateral and accessory canals. More prevalent and degenerative effects were observed in periodontal teeth under caries and/or restorations. The findings indicate a need for combined periodontic-endodontic therapy in many of the teeth with periodontal disease.

See page 21 for Biographic Sketch.

9:40 - 10:00

The Incidence and Configuration of Lateral Canals and Accessory Foramina in Human Teeth as seen Histologically and Roentgenologically

Essayist: HAROLD NAZIMOV, D.D.S., Albert Einstein Medical Center, Philadelphia.

Abstract: A simple hydraulic pressure technic was devised in an attempt to force radiopaque filling material into accessory and lateral canals. Roentgenographic and serial histologic studies were made to correlate these findings relative to the incidence and configuration of the canals. Observations were made both under in vivo and in vitro conditions.

See page 21 for Biographic Sketch.

10:00 - 10:40

Influence of Periodontal Disease on the Dental Pulp

Essayist: Boleslaw Mazur, D.D.S., M.S., University of Illinois

Abstract: One hundred twenty eight teeth were divided into four groups, on the basis of bone loss and root exposure. After histologic prepara-

tion, the teeth were examined microscopically and the results of the observations indicates the following: (1) There is no relationship between severity of periodontal disease (as expressed by the amount of exposed root) and changes in the pulp. In each group of periodontally diseased teeth and in the control teeth a full range of pulpal changes, from mild to severe, was found. (2) The teeth from the same patient showing a wide variety of periodontal involvements had pulps that were histologically similar. (3) The systemic condition of the patient may have a greater influence on the condition of the pulp than does the status of the periodontium or his chronologic age.

See page 22 for Biographic Sketch.

10:40 - 11:00

Discusser: Maury Massler, D.D.S., M.S., University of Illinois

11:00 - 11:50

Cognitive Dissonance in Endodontics

Essayist: Samuel Seltzer, D.D.S., School of Dental Medicine, University of Pennsylvania

Abstract: There are a number of disagreements between clinical results and theory in endodontics. Some basic "principles" of treatment are not principles at all and defy logical explanations. This paper discusses a few areas of dissonance and raises questions to which satisfactory answers are not available.

See page 20 for Biographic Sketch.

12:00 - 2:00 P.M.

LUNCHEON WITH THE ESSAYISTS

A question, answer and discussion period for essayists and members will be held on the topics that were presented.

Registration for the luncheon can be secured at the registration desk.

SATURDAY AFTERNOON

2:00 - 2:50

Moderator: Milton Siskin, D.D.S., Memphis, Tennessee

The Histologic Observations of Periapical Reactions in Human Teeth after Various Time Intervals Following Endodontic Procedures

Essayist: Walter Soltanoff, D.D.S., Seton Hall College of Medicine and Dentistry

Abstract: This study was undertaken to determine the effect of various endodontic procedures on the periapical tissues of vital teeth with intact, uninflamed pulps. Apical block resections were performed at various time intervals on teeth under the following clinical procedures:

(1) No treatment, sham operation; (2) pulp extirpation only;

(3) pulp extirpation, reaming and filing; (4) pulp extirpation, reaming, filing and filling. The observations based on the histologic examinations were as follows: (1) Resorptive and repair processes occur with no relationship to endodontic procedure. (2) The same inflammatory responses that occur in the pulp tissue occur in the periapical tissue. (3) Underfilling of the canal generally results in a resolution of a previous inflammatory response. (4) Overfilling generally results in a persistence of a chronic inflammation.

See page 22 for Biographic Sketch.

3:00 - 3:30

Instant X-ray Pictures

Essayist: A. G. RICHARDS, M.S., University of Michigan

Abstract: The production of radiographic images which could be viewed immediately, without spending precious time in the processing room, has long been a goal which now is approaching reality. A method for achieving this goal will be demonstrated and its merit evaluated. Other future developments in dental radiography will also be discussed.

See page 22 for Biographic Sketch.

3:30 - 5:00

22nd ANNUAL BUSINESS MEETING

Presiding: J. B. Freedland, D.D.S., Charlotte, North Carolina

Cocktail Hour

Saturday May 1

CRYSTAL BALLROOM

6:00 P.M.

X

Banquet

and

Installation of Officers

7:00 P.M.



ENTERTAINMENT

Tickets for the banquet are available at the registration desk.

SUNDAY MORNING, MAY 2, 1965

FOUNDERS ROOM

9:00 - 9:50

Moderator: HARRY BLECHMAN, D.D.S., New York, N. Y.

Clinical and Immunological Study of Tooth Transplantation

Essayist: RALPH MEZROW, D.D.S., Albert Einstein Medical Center, Philadelphia

Abstract: The feasibility of transplanting viable teeth from one individual to another will be discussed. The technical procedures, the various problems encountered, together with radiographic and histologic findings will be evaluated. Moreover the immunologic bases of acceptance or rejection of tooth transplants will be considered.

See page 23 for Biographic Sketch.

10:00 - 10:30

The Significance of Microorganisms Isolated from the Root Canal

Essayist: M. MADLANER, D.D.S., M.Sc.D., University of Toronto, Canada

Abstract: Identification of bacteria in positive cultures of over 1200 cases treated in the senior dental clinic of the University of Toronto, shows a strong relationship exists between the type of microorganism present in the culture and the clinical situation. These included salivary contamination, leaky seals, presence of other fillings, insufficient biomechanical preparation, hand and air contamination. Furthermore, to explain the occurrence of certain types of microorganisms in cultures, a preliminary study was made to determine the mutual inhibition of certain bacteria.

See page 23 for Biographic Sketch.

10:30 - 10:45

The Use of Stainless Steel Files as a Root Filling Material

Essayist: A. J. Sampeck, D.D.S., M.S., Dallas, Texas

Abstract: An evaluation will be presented of the feasibility of the use of stainless steel files as a sealing point. Microscopic slides and charts will be shown to illustrate the amount of contact that the flutes of the files make in canals of sectioned teeth.

See page 23 for Biographic Sketch.

10:45 - 11:30

Experimental Investigations on Steroid-Antibiotic Compounds in Pulp Therapy

Essayist: IVAR A. MJOR, B.D.S., M.S.D., M.S., University of Oslo, Oslo, Norway

Abstract: In a series of clinically intact teeth, cavities of varying depth, including pulp exposures, were prepared. The steroid-antibiotic compound* to be investigated was used as a liner, and the cavities were filled with either zinc oxide-eugenol or amalgam. The steroid-antibiotic treated teeth were extracted after periods of time varying from 3 to 117 days. Teeth in which calcium hydroxide and zinc oxide-eugenol were used in a similar manner, as well as teeth in which cavity preparation were perfromed, formed the control material. The teeth were examined histologically, particularly the odontoblast-predentin area corresponding to the experimental cavities will be presented in detail.

*Ledermix—trade name of American Cyanamid Company. See page 24 for Biographic Sketch.

11:30 - 11:45 Discriminate Use of Silver Cones

Essayist: NGUYEN THANH NGUYEN, D.D.S., University of California

Abstract: Endodontic therapy requires the use of filling materials best suited for each specific case. Certain objections in the use of silver cones due to questionable apical seal, problems of discoloration, difficulty in the removal of coronal excess and in retreatment, etc., are often unjustified. This presentation will illustrate methods of overcoming these objections and some unusual methods in the use of the silver cone technic.

See page 24 for Biographic Sketch.

11:45 - 12:00 Artifistulation

Essayist: Marvin H. Scott, D.D.S., Dental Corp., U. S. Navy

Abstract: Periapical pain is usually the result of pressure generated by an acute inflammatory reaction to irritation. One sitting endodontic treatment and filling frequently provides such an irritation. To avoid the build-up of inflammatory pressure and pain, a safety valve should be provided. This can be accomplished by periapical curettage, but

here the patient must remain under dental surveillance for several days. "Artifistulation" produces an effective safety valve without requiring professional post-operative care. The method and procedures will be described.

See page 24 for Biographic Sketch.

Biographic Sketches of Our Essayists

DR. RICHARD LORRAINE de CHASTENEY HOLBOURNE SAUNDERS

Dr. Richard Lorraine de Chasteney Holbourne Saunders was born in South Africa of Scottish parents in 1908. His father was a surgeon. Dr. Saunders received his medical training at Rhodes University in South Africa and Edinburgh University, Scotland, in 1932. He was a lecturer in anatomy at the University of Edinburgh from 1933 to 1937 and came to Dalhousie University as assistant professor in anatomy. In 1949 he was promoted to the rank of professor and head of the department of Anatomy. Since then he has taught and conducted research in x-ray microscopy at Dalhousie University.

He is a Fellow, Royal Society (Edinburgh); Fellow Royal Microscopic Society; Corresponding Member Royal Society of Arts (London), and numerous other honorary and scientific organizations both in North America and Europe. He has published numerous books and articles dealing with microradiography, x-ray microscopy and anatomy of the peripheral circulation.

At the present time Dr. Saunders is on a sabbatical leave conducting further studies at the Montreal Neurologic Institute, Montreal, and at the Institute Rocha Cabral, Lisbon, Portugal. His home address is 1124 Robie Street, Halifax, N. S. Canada.

He was gracious to accept our invitation to come from Lisbon to address our members because of his interest in the circulation of the pulp.

DR. JAMES K. AVERY

Dr. James K. Avery is professor of dentistry and associate professor of anatomy in the Medical School of the University of Michigan. Dr. Avery received his B.A. and Ph.D. degrees from the University of Rochester and his D.D.S. degree from the University of Kansas City School of Dentistry. He has taught in a number of areas in the dental curriculum especially in the areas of developmental anatomy of the oral tissues.

Professor Avery is a member of the American Association of Anatomists, Electron Microscope Society of America, International Society of

Crainiofacial Biology, Sigma Xi, New York Academy of Science, Fellow of the American Association for the Advancement of Science, Omicron Kappa Upsilon and numerous other national and international scientific organizations. He is listed in American Men of Science.

He is involved in an active research program and he has published some thirty five articles and has contributed to five textbooks. He is married and has three children.

DR. DONALD SCOTT

Dr. Scott was born on Long Island, New York, and obtained his undergraduate training at Harvard University. Upon completion of his undergraduate study, he felt inclined to do graduate work in physics but became increasingly interested in the field of biophysics and did his graduate thesis at the University of London, England, under the stimulating guidance of the distinguished Nobel laureate, Professor A. V. Hill. His thesis topic was the first demonstration of the local depolarization of single peripheral nerve fibers and the relation of this local depolarization to the conducted impulse. Upon completion of his doctoral studies, he joined Dr. D. W. Bronk at the Johnson Foundation, Philadelphia, in a study of the transducer mechanism of the Pacinian corpuscle in the cat. More recently, he has been associated with the Department of Anatomy and Physiology in the University of Pennsylvania Medical School where his principal studies have involved the regeneration of the spinal cord in the cat and the present study of the sensory mechanism in the dentin of the tooth.

DR. MELVIN GOLDMAN

Dr. Melvin Goldman is assistant professor in Endodontics at Tufts University, School of Dental Medicine. He received his B.A. degree from the University of Alabama and his D.D.S. degree from New York University. He is assistant Oral Surgeon at the Worcester City Hospital.

Dr. Goldman has received numerous grants to study problems as they relate to endodontics. He is a member of Omicron Kappa Upsilon and many component dental societies.

DR. B. NYGAARD OSTBY

Dr. B. Nygaard Ostby was born in 1904 and graduated from the Norwegian State Dental School in 1927. He received his Ph.D. degree from Oslo University, Norway. He was director of the Norwegian Institute of Dental Research, acting chief of department of Operative Dentistry at the Norwegian State Dental School and past president of the Norwegian Dental Association.

He holds honorary membership in the following organizations: Swedish, Finnish, Danish Dental Associations and American Association of Endodontists. Dr. Ostby was invited as a lecturer and group leader at the World Conference on Endodontics, University of Pennsylvania, 1953, and was honorary chairman at the Second World Conference on Endodontics, University of Pennsylvania, 1958. In 1962 he was appointed as the main reporter on Endodontics at the 13th Congress of the Federation Dentaire International, Cologne, Germany.

He has lectured extensively and has given numerous postgraduate courses throughout the United States, Canada, South America, Cuba and almost all the countries of Europe and Israel.

He has received the Scandinavian Dental Association's Award for outstanding scientific work and The Thomas P. Hinman Mid Winter Clinic Award for leadership in Dental Progress.

His publications are well known in the United States especially the three monographs on the tissue reactions in the human apical periodontium incident to root canal therapy. He also has written numerous articles dealing with caries, operative dentistry and endodontics. His original contributions have had a great impact on present day endodontic procedures and concepts.

DR. SAMUEL SELTZER

Dr. Samuel Seltzer was born February 3, 1914. He received his undergraduate training and his D.D.S. degree from the University of Pennsylvania in 1937. Upon graduation he was awarded a grant by the William J. Gies Foundation to investigate the effects of various anti-bacterial agents used in dentin sterilization. Since then he has received numerous grants from the United States Public Health Service, National Institutes of Health, to study: the infectibility of the dental pulp; the role of alkaline phosphatase in reparative dentinogenesis, and biologic aspects of endodontics.

He has been associated with the teaching staff in various departments of the University of Pennsylvania, School of Dental Medicine, for the last 25 years. Currently he is associate professor of oral histology and oral pathology. He was the first to introduce a special course, The Biology of the Pulp, in the department of Operative Dentistry. He also teaches endodontics in the Post-graduate and Graduate School of Medicine, University of Pennsylvania.

Dr. Seltzer has lectured and presented numerous post-graduate courses in many dental schools and dental societies in the United States, Canada and Israel. He is chief of Endodontics, Albert Einstein Medical Center, Northern Division. His department is one of the most active and progressive departments having trained numerous men in the field of experimental endodontia.

He is author of over 50 papers dealing with problems in endodontics, pulp biology and related fields; co-author (with Dr. Bender) of forthcoming text, "The Dental Pulp." His hobby is writing papers and challenging accepted dicta.

DR. HAROLD RUSSEL STANLEY

Dr. Harold Russel Stanley is chief of the Oral Medicine and Surgery Branch, National Institute of Health, Bethesda, Maryland. He received his D.D.S. degree from the Baltimore College of Dental Surgery in 1948 and his Master's degree in Pathology from Georgetown University in 1953. He spent two years with General Bernier at the Armed Forces Institute of Pathology. Since then he has been the oral pathologist at the clinical center of National Institutes of Health. He is a diplomate of the American Board of Oral Pathology. He has received an honorary professorship from the Dental School of the University of San Carlos, Guatemala, in 1960 and was awarded the Gorgas Odontological Society Award for outstanding achievements in Dentistry in 1962. He is considered as one of the outstanding authorities on the Biology of the Pulp and he has contributed numerous publications in this area.

DR. MURRAY ZIONTZ

Dr. Murray Ziontz is one of our recent graduates having received his B.A. degree from the University of Connecticut in 1957 and his D.D.S. degree from the University of Pennsylvania in 1961. He was research associate at the University of Pennsylvania and received his training in endodontics at the Albert Einstein Medical Center, Northern Division. While serving in the Army he was chief of Department of Endodontics, Fort Hood, Texas, 1962-64.

He has been co-author with Drs. Seltzer and Bender on a number of investigations in which he has made valuable contributions to the endodontic literature.

DR. HAROLD NAZIMOV

Dr. Harold Nazimov is also a recent graduate having received his D.D.S. degree from the University of Pennsylvania in 1961. He served in the U. S. Army Dental Corps 1961-63, was research associate at the Univer-

sity of Pennsylvania and he received his training in Endodontics at the Albert Einstein Medical Center, Northern Division. At present he is on the endodontic staff of that hospital.

■ DR. BOLESLAW MAZUR

Dr. Boleslaw Mazur was born October 19, 1918, in Poland. At the outbreak of the Second World War he was an officer in the Polish Army and became a prisoner of war from 1939-45 in Germany. After liberation he attended the University of Hamburg and received his D.D.S. degree in 1949. He came to the United States, worked in factories from 1949-52 and studied dentistry at the University of Illinois. Upon his graduation he taught at the University of Illinois, College of Dentistry, from 1956-59. He received his M.S. degree from the University of Illinois in 1961 and was trained in Crown and Bridge by Dr. Stanley Tylman. He taught at West Virginia University Dental School, 1961-64. Since then he has returned to the teaching staff of the University of Illinois, in the prosthetic department.

DR. WALTER SOLTANOFF

Dr. Walter Soltanoff received a B.S. degree from the University of Maryland (1936) and his D.D.S. from the University of Pennsylvania (1940). He was clinical instructor in Endodontics, Temple University, 1958-60. In 1960 he was appointed Assistant Clinical Professor in Endodontics at Seton Hall College of Medicine and Dentistry. He also teaches endodontics in the post graduate division of this institution. During the last three years he has been participating in endodontic research, part time.

DR. ALBERT G. RICHARDS

Dr. Albert G. Richards is professor of Dentistry at the University of Michigan. He holds a B.S. degree in Chemical Engineering and a Master of Science degree in Physics. He has taught Dental Radiography at the University of Michigan for 25 years. He is consultant on Radiation to the Council on Dental Research, American Dental Association and is one of the outstanding authorities on radiation in dentistry. He has published over 70 articles in the dental literature and is listed in Men of Science and "Who's Who in the Midwest" (9th Ed.). He is a former president of the Academy of Oral Roentgenology and is a member of numerous national and international dental Societies.

DR. RALPH MEZROW

Dr. Ralph Mezrow graduated Temple University Dental School in 1943. He extended his training by serving an Externship and Residency in Oral Surgery at Sydenham Hospital, New York, 1946-48. He also took graduate training in Oral Pathology at the New York Institute, University of Pennsylvania. Temple University School of Dentistry and Medicine. He is a diplomate. New York State Board of Oral Surgery. The National Institutes of Health has given him a grant to study the problem of tooth transplantation. Dr. Mezrow is an Associate in Oral Surgery at the Albert Einstein Medical Center and he is conducting his investigations at that institution. He has written numerous papers on tooth transplants and Oral Pathology.

DR. MADLANER

Dr. Madlaner was born February, 1915, in Berlin, Germany. In 1925 his parents immigrated to Soerabaja in the Dutch East Indies. He received his Tandarts (Dutch Dental Degree) from the University of Soerabaja, 1940, and was in general practice for a short time.

He enlisted in the Dutch Army Dental Corps and in 1942 was interred as a prisoner of war by the Japanese Army in Thailand until the end of 1946. Then he returned to Holland and received his D.D.S. degree at the University of Utrecht. Between 1949 and 1951 he practiced dentistry in South Samatra under the sponsorship of the Dutch Colonial Office.

Following the establishment of an independent government in that country he immigrated to Canada where he attended the Dental School of the University of Toronto and received his D.D.S. degree from that school in 1953. Subsequently he received his M.Sc.D. in Microbiology from the University of Toronto. His master's thesis was entitled, "Taxonomic position, cultivation and characterization of oral spirillae."

In 1955 he received a full time appointment in Oral Microbiology and Clinical Dentistry at the University of Toronto. At the present he is Associate Professor and Head of the Department of Oral Bacteriology. He also lectures in Endodontics.

He has written several articles on Microbiology and its relationship to dentistry and although he is at present a full time instructor he does exercise practice privileges.

DR. ADRIAN J. SAMPECK

Dr. Adrian J. Sampeck received his D.D.S. degree from the University of Nebraska, 1950, and his M.S. degree in Endodontics from Michigan

University. He was associated with Dr. Harry B. Johnston of Atlanta, one of the pioneers in the field of endodontics. He was an instructor at Emory University Dental School. Subsequently he was appointed as Professor and Chairman of the Department of Endodontics at Baylor University Dental School, the position which he now holds. He is in private practice of endodontics in Dallas, Texas.

DR. IVAR MJOR

Dr. Ivar Mjor was born in 1933 and graduated with a B.D.S. degree with commendation, Dundee Dental School, University of St. Andrews, Scotland, 1957. He received his M.S.D. degree (Periodontics) 1960, and an M.S. degree (Anatomy) 1961, from the University of Alabama. He was a lieutenant, Dental Corps, Royal Norwegian Army and a Research Fellow, Norwegian Institute of Dental Research. In 1961 he was appointed to the Dental Faculty in the department for General Dental Research.

His publications consist of two Master's Theses and several publications on the structure of the perilacunar and pericanalicular bone matrix, and changes in dentin and pulp following various experimental procedures.

DR. NGUYEN THANH NGUYEN

Dr. Nguyen Thanh Nguyen received his A.B. degree from Hanoi University, Viet Nam, 1940, and his D.D.S. degree from Tokyo Dental School, Tokyo, Japan, 1945. In 1955 he obtained his American D.D.S. degree from the University of California. He is a member of Omicron Kappa Upsilon, National Scholastic Honor Society, and F.A.C.D. He was past-president, Northern California Academy of Endodontists. At the present time he is Associate Clinical Professor in Operative Dentistry, Chairman of Section on Endodontics, University of California. He divides his time between teaching and private practice with emphasis on endodontics.

COMMANDER MARVIN H. SCOTT

Commander Marvin H. Scott is a graduate of the University of Nebraska College of Dentistry, 1944, with B.S. and D.D.S. degrees. His interest in endodontics was motivated by Dr. W. Clyde Davis, our first president of the American Association of Endodontists, who taught at the University of Nebraska. Commander Scott attended a 10 month post-graduate period of instruction at the U. S. Naval Dental School in 1954. Before and after his assignment to sea duty his practice has been limited to endodontics. He is at present stationed at the U. S. Naval Station, San Diego, California.

FRIDAY, APRIL 30, 1965

BREAKFAST FOR NEW MEMBERS

7:15 A.M.—8:15 A.M.

Reception

Invocation

Introduction of Officers of A.A.E.

Purpose and History J. B. FREEDLAND

Board Qualifications RALPH SOMMER

Charge to New Members HENRY S. SCHMIDT

"LUNCHEON WITH LEARNING" 12:15 P.M.

In order to expedite registration for this portion of the program, please indicate your first, second or third choice of the topic of preference. Reservations will be honored on the basis of the earliest requests.

Mail your selections now to secure your assignment by sending a check for \$5.00 to Dr. Harold Maxmen, 601 Northland Medical Building, 20905 Greenfield at W. 8th Mile Road, Southfield, Michigan.

SCIENTIFIC EXHIBITS

ENTRANCE TO CRYSTAL BALLROOM

Friday through Sunday

EXHIBITORS

	27111211 2 112
Murray Ziontz and Jerry Smith	Interrelationship of Pulp and Periodontal Disease.
	Double Canals in Single Roots.
David Green	Classification of Major and Accessory Apical Foramina.
JAMES K. AVERY	Nerves in Teeth.
SAMUEL SELTZER	
Walter Soltanoff and Irwin Freedman	Periapical Tissue Reactions to Endodontic Procedures.
ROBERT KRASNY	Radiologic Misinterpretation of Root Canal Anatomy.
Ivar A. Mjor	Steroid-Antibiotic Compounds on Normal Pulps.
DONALD SCOTT	Physiologic Analysis of Sensory Mechanisms In Dentin.
MARVIN H. SCOTT	Artifistulation.
R. L. de C. H. SAUNDERS	X-ray Microscopy of Human Dental Pulp.
HAROLD STANLEY	The Response of the Human Dental Pulp to High Speed Instrumentation.
PETER KAPSIMALIS	Research Studies in Endodontic Cements.
Louis J. Fenech	Endodontics — A Clinical Conference of Case

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The Following Exhibitors

in the

Normandie Room and Parlor C

Thursday through Sunday

Lester A. Dine Inc.

Kerr Manufacturing Co.

J. P. Lippincott Co.

Charles C. Schwed Co.

Star Dental Manufacturing Co.

Premier Dental Products Co.

Mynol Chemical Co.

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Vincent B. Milas

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Freekland

Necrology

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Program Editor

19.60

I. B. Bender

NOTES