



The American Academy
of
Neurological Surgery

FIFTEENTH ANNUAL MEETING
THE SANTA BARBARA BILTMORE • MONTECITO
SANTA BARBARA, CALIFORNIA

OCTOBER 12, 13, 14, 1953

④ 250 standard lobotomies, 3 deaths, 13% seizures -
has used Stranham technique on most 70 pt. (90 operations)
all lesions made in same place, just anterior and below
the tip of the frontal tip of the ventricle - reports on
30 cases & followup of 6 mo or more - checks electrode
placement & ventriculogram - dura cauterized & electrode
pushed thru & incising the dura so the dura helps
anchor the electrodes - uses Boire set & coagulation
at 20 & current applied for 30 sec. - 17 good results,
10 improved, 2 failures, 1 death -

Stranham - 195 cases - 3 deaths early in series -
pain cases could be improved by second or third
coagulation, psychotic cases not improved by reoperation

⑤ pt. had 2 febrile seizures followed by left hemiplegia -
developed seizures 3 yr. later (4 yr. of age) - 1 to 15
daily - operation at age 14 yr. - no seizures during
15 mo. since operation - less spasticity - mental
status improved -

Abstracts of Papers Appearing in
Scientific Program

OF

THE AMERICAN ACADEMY OF NEUROLOGICAL SURGERY

OCTOBER 12, 13, 14, 1953

(2) *Intracerebral Stimulation and Recording in Ambulatory Patients*

BY: HANNIBAL HAMLIN, M.D., AND WILLIAM H. SWEET, M.D.

Cinematographic film is made up of sequences showing method of intracerebral implantation of electrodes, effects of stimulation on posture and overt behavior, and recorded alterations in electrical activity of the brain. Included are shots of a patient undergoing electrolytic interruption of points in frontal fibertracts selected on the basis of focal EEG abnormality.

(3) *Electrical Activity from Chronically Isolated Monkey Cerebral Cortex
A Preliminary Report*

BY: FRANCIS A. ECHLIN, M.D.

The electrical activity was recorded from areas of monkey cerebral cortex which had been neuronally isolated, or partially isolated, three to five months previously. The investigation was designed to study particularly the spontaneous waves which were present in the partially isolated cortex and the effect of electrical stimulation, of metrazol, and of acetyl choline on this activity. The following conclusion were drawn.

CONCLUSIONS:

1. The electrical activity from the chronically partially isolated monkey cortex is very similar to that seen in monkey cortex treated with alumina cream.

tively developed suboccipital meningoceles associated with ventricular hypertension. Attempts were made in five of the six cases unsuccessfully to correct the suboccipital meningoceles by direct attack and subsequently lumbar subarachnoid peritoneal shunt was utilized and proved effective in controlling the ventricular hypertension. The cases consisted of two cerebellar hemangioblastomas, one acoustic neurinoma, one congenital glial cyst of the fourth ventricle, one posterior fossa arachnoiditis and one patient subjected to Torkildsen procedure in the surgical management of a pinealoma.

The American Academy of Neurological Surgery

Fifteenth Annual Meeting



SANTA BARBARA BILTMORE
SANTA BARBARA, CALIFORNIA

October 12, 13, and 14, 1953

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PROGRAM COMMITTEE:

Dr. Edwin B. Boldrey

Dr. William H. Sweet

Dr. C. Hunter Shelden

★ ★ ★

HOSTS:

Dr. and Mrs. Edwin B. Boldrey

Dr. and Mrs. Robert Pudenz

Dr. and Mrs. Howard A. Brown

Dr. and Mrs. Aidan A. Raney

Dr. John D. French

Dr. and Mrs. Rupert B. Raney

Dr. and Mrs. Edmond J. Morrissey

Dr. and Mrs. David L. Reeves

Dr. and Mrs. C. Hunter Shelden

① study of medial surface of temporal lobe in cats +
monkey - stimulated hippocampus in cat \bar{e} 15 cps
(square wave, Thyratron + sine wave) for 15-30 sec. -
with low

SUNDAY, OCTOBER 11, 1953

REGISTRATION — SANTA BARBARA BILTMORE

with low
voltages the
cat's behavior
was not altered

Cocktails and Supper at home of
Dr. and Mrs. David L. Reeves
109 Picacho Lane, Montecito

was tho an after discharge was produced - with larger
intensities a seizure occurred that starts with motor
movements - bilateral removal of amygdala makes
monkey tame but does not produce the hyper sexuality
seen in the Bury-Klauer series - the taming does not
occur \bar{e} bilat. removal of the lateral cortex of the temp.
lobe - produced attacks in monkey by injection of
10,000 units of penicillin - these appear after 1 hr., persist
for up to 6 hr - don't lose consciousness during these
psychomotor attacks - discharge spreads to association
areas + almost not at all in the central, visual or
auditory areas - when discharge does appear in the
motor areas consciousness is lost -

② needle electrodes inserted thru frontal bone holes - 8 pt.
(6 psychotic, 2 pain problems) - square wave stimulation -
Scoville - has removed medial surfaces of temporal lobe in
30 cases - in 2 \bar{e} removals carried further posteriorly
marked memory loss ensued - abstract

③ stab around nodes at 4 corners of area to be undercut,
elevators inserted + swept beneath cortex + up to pia against
finger placed on the surface - longest followup 5 mo -

more activity present in EEG at 5 mo. than at 1-2 mo -

(4) →

MONDAY, OCTOBER 12, 1953

Scientific Program

J. LAWRENCE POOL, M.D., PRESIDENT, *Presiding*

9:30 A.M. OPENING OF MEETING AND WELCOME

9:35 A.M. (1) Functions of the Temporal Lobe. 15 minutes
movie A. EARL WALKER, M.D.

9:55 A.M. (2) Intracerebral Stimulation and Recording in 15 minutes
Ambulatory Patients.

HANNIBAL HAMLIN, M.D., and WILLIAM H. SWEET, M.D.
movie cases studied by Delgado + Hamlin

10:15 A.M. (3) Electrical Activity from Chronically Isolated 15 minutes
Monkey Cerebral Cortex. A Preliminary Report.
FRANCIS A. ECHLIN, M.D.

10:35 A.M. DISCUSSION.
JOHN D. FRENCH, M.D., and T. C. ERICKSON, M.D.

11:15 A.M. (4) Experiences with the Grantham Technique in 15 minutes
Prefrontal Lobotomy.
HOWARD D. MCINTYRE, M.D., FRANK H. MAYFIELD, M.D., and
AURELIA P. MCINTYRE, M.D.

11:30 A.M. DISCUSSION.

11:40 A.M. (5) Hemispherectomy in the Treatment of Con- 10 minutes
vulsive Seizures and Progressive Mental Deterioration
in Infantile Hemiplegia.
movie DONALD D. MATSON, M.D.

12:30 P.M. LUNCHEON IN LOGGIA ROOM
Members, Wives, and Guests.

1:45 P.M. (6) Proximal Differential Section of the Seventh 10 minutes
Cranial Nerve in Facial Tic. — 6 cases
WILLIAM B. SCOVILLE, M.D.

(6) nerve exposed at mastoid foramen — 3/4 of the nerve cut just proximal to first major branch — cut nerve lengthwise first then turn knife & cut fibers superficial to this cut — must cut enough of the nerve to cause definite paralysis of the face —

cut segment of the nerve is turned back & sutured to muscle - 8 mo. to 6 yr. follow-up - all have had some return of the tic but in 5 the result is still good -

NOTES

⑦ abstract -

Schwartz - does then thru C1-2 laminas & bone removal - does not cut dentate attachment - cut just to the ant. root - insert knife just dorsal to the dentate - has abandoned thoracic cordotomy - does bilat. sections at this same level -

⑧ abstract -

⑨ abstract - 21 malignant tumors in 19 members of this family -

4 yr ♂ sarcoma of buttocks & undifferentiated glioma

8 yr ♀ left parietal temporal glioma - sarcoma of wrist also -

19 yr ♀ - aunt of above 2 children - left frontal astrocytoma - died 11 days postop -

♀ - aunt - CA of both breasts -

14 yr ♂ - glioma - died

⑩ 54 cases in 1 yr. - 10 were atypical facial pains, did not get as good results - 70% had complete relief of their pain - 7 temporary facial paresis -

Bradley - 6 cases - 5 complete relief - herpes more severe & more extensive -

Colburn - 5 cases - 3 had more exposure of ganglion - all had relief of pain -

- 1:55 P.M. (7) A Method of Cordotomy. *5 minutes*
 EDWARD W. DAVIS, M.D., and KENNETH E. LIVINGSTON, M.D.
- 2:00 P.M. DISCUSSION.
 RUPERT B. RANEY, M.D.
- 2:10 P.M. (8) Thrombosis of Superior Longitudinal Sinus. *10 minutes*
 WILLIAM S. KEITH, M.D.
- 2:20 P.M. (9) Familial Malignancy with Gliomata in Siblings. *10 minutes*
 WILLIAM F. MEACHAM, M.D.
- 2:30 P.M. (10) Trigeminal Nerve Root Decompression. One Year Follow Up (movie).
 ALFRED UHLEIN, M.D.
- 3:00 P.M. INTERMISSION.
- 3:30 P.M. BUSINESS MEETING. MEMBERS ONLY.

TUESDAY, OCTOBER 13, 1953

Scientific Program

- 9:00 A.M. (11) Application of 23 MEV X-rays (Betatron) to the Treatment of C.N.S. Tumors. *15 minutes*
 ARTHUR ARNOLD, M.D.
- 9:20 A.M. (12) Experimental Note on the Treatment of Advanced Malignancy by Hypophysectomy. *15 minutes*
 THEODORE B. RASMUSSEN, M.D., PAUL HARPER, M.D., and
 THELMA KENNEDY, M.D.
- 10:00 A.M. (13) Neurosurgical Experiences with Diabetes Insipidus. *15 minutes*
 E. HARRY BOTTERELL, M.D.
- 10:30 A.M. (14) Roentgenographic Aspects of Sellar and Parasellar Lesions. *30 minutes*
 JOHN D. CAMP, M.D.*

* By Invitation.

⑪ Sweet - Arsenic 74 in external localization of brain tumors - positron emitter - tumor-brain ratio is 10 to 1 at 1 hr, is 5 to 1 at 24 hr, but localization **NOTES** in muscle is much lower so temporal tumors are localized best then - automatic scanning equipment ignores scattered rays & counts only the vertical traveling gamma rays - 17 day physical half life but only 1 day biologic half life - examination takes 1 hr - $1\frac{1}{2}$ to 2 m.c. as arsenite & arsenate (25 microcuries per kilogram)
 15^{42} for slowly growing neoplasms -

⑬ abstract - 20 adult cases - 5 trauma, 2 tumor, 1 sarcoidosis, 12 undetermined -

Olivicoma - 22 cases ^{hypophysectomy} for adenoma of breast - temporary diabetes insipidus disappears in 4-6 weeks - persistent diabetes means remaining ant. lobe tissue -

⑭

⑮

abstract
⑯ 29 hydrocephalus 45 ventriculo peritoneal shunt
10 tumors 44 lumbar " "
6 pseudotumor
6 TB meningitis
55 miscellaneous porty tube becomes stiff in tissues & some of them broke -
total cases - 89 operations - 18 pt. survive -
new ones polyethylene tube that will pass thru a 13 gauge needle
only 5 infantile hydrocephalus - longest followup $2\frac{1}{2}$ yr. - hydrocephalus arrested in 4, 1 died of wound infection -

- 11:00 A.M. (15) Tumors of the Optic Chiasm (movie).
C. HUNTER SHELDEN, M.D., and ROBERT PUDENZ, M.D.
- 11:30 A.M. A Discussion of Unusual X-ray Films Presented for Diagnosis.
JOHN D. CAMP, M.D.*
- 1:00 P.M. BUSES LEAVE SANTA BARBARA BILTMORE FOR BARBECUE AT SAN MARCOS RANCH.
Members, Wives, and Guests.

WEDNESDAY, OCTOBER 14, 1953

Scientific Program

- 9:00 A.M. (16) Peritoneal Shunt in the Treatment of Hydrocephalus. *10 minutes*
IRA JACKSON, M.D., and SAMUEL R. SNODGRASS, M.D.
- 9:15 A.M. (17) Lumbar Subarachnoid Peritoneal Shunt in the Surgical Management of Postoperative Suboccipital Meningoceles. *10 minutes*
HOMER S. SWANSON, M.D.
- 9:30 A.M. DISCUSSION.
JOHN RAAF, M.D., and HENRY G. SCHWARTZ, M.D.
- 10:00 A.M. (18) Permanent Drain for Syringomyelia. *10 minutes*
DEAN H. ECHOLS, M.D., and HOMER KIRGIS, M.D.
- 10:20 A.M. (19) Chemically Induced Hypotension in Neurological Surgery. *15 minutes*
BARNES WOODHALL, M.D., and GUY L. ODOM, M.D.
- 10:35 A.M. (20) Analysis of Cause of Death in Cases of Operated and Unoperated Sacular Aneurysm. *15 minutes*
ARTHUR R. ELVIDGE, M.D.

* By Invitation.

- 13 had previous meningitis - 8 communicating - 12 operations -
4 pt. died of recurrence of infection -
5 obstructive - 11 operations -
4 living - 3 still have increased pressure -
9 associated \bar{e} spina bifida - 17 operations -

NOTES

(17) abstract -

Raaf - none of his operations work \bar{e} very great success -

Schwartz - shunts into fallopian tubes - 12 cases (8 lumbar, 4 ventricular) - tubes begin to function after 12-24 hr - no electrolyte problems - 3 mo to 3 yr. - 1 to 12 mo followups - 11 still working -

R. Raney - uses peritoneal shunt to drain subdural hematoma of infancy -

Matson - a few shunts work, many don't -

- (18) Long cyst of brain stem + cord - closed up \bar{e} recurrence of symptoms after 4 weeks - reoperation 1 mo. later \bar{e} tantalum wire drain has resulted in cure for 7 yr. to date - wire sutured to dura & run thru cavity bringing it out lower down & then anchored to dura - movement of cord on wire keeps drain working -

Stetapson - 35 cases - removes C1, 2, 3 lamina, diagnostic aspiration of cavity only - compression may be due to bone, dura, or Arnold Chiari malformation -

Drew - 8 cases - followups for up to 4 yr. - 4 arrested, 4 improved -

10:50 A.M. (21) Subdural Hematoma Associated with Intra-
cranial Aneurysm. 15 minutes

SPENCER BRADEN, M.D.

11:05 A.M. DISCUSSION.

11:30 A.M. (22) Internal Carotid Embolectomy.

FRANCIS MURPHEY, M.D.

1:00 P.M. LUNCHEON AT CORAL CASINO.

Members, Wives, and Guests.

Official photograph.

2:30 P.M. FINAL BUSINESS MEETING. MEMBERS ONLY.

6:30 P.M. COCKTAILS — BILTMORE HOTEL PRIVATE BAR. FORMAL.

Members, Wives, and Guests.

7:30 P.M. ANNUAL BANQUET IN LOGGIA ROOM. FORMAL.

Members, Wives, and Guests.

PRESIDENTIAL ADDRESS

Neurosurgery and the Mind

J. LAWRENCE POOL, M.D.

Dancing.

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EXHIBIT OF ELECTRONIC EQUIPMENT BY
THE MEDITRON COMPANY
PASADENA, CALIFORNIA

Matson - experimental production of adhesions about posterior fossa resulted in production of cavity in upper cerebral cord in 60-80% of animals - NOTES

Pool (instead of 19) followup of ant. choroidal ligation for Parkinsonism - Cooper now has done 35 cases - temporary hemianopsia clears in 2 wks - more effect on rigidity than on tremor - 3 deaths in pts. over 50 - pt. not made weaker -

Walker - 2 cases - French surgeons cauterize globus pallidus for Parkinsonism - postencephalitic case had good result - tie craniectomy opening - second branch of int. carotid is the ant. choroidal in 50% of autopsy brains, in 20% there are 2 ant. choroidal, in 20% there is no ant. choroidal coming from int. carotid - second case, older woman had no change after operation -

Wihlin - 4 cases done by McCarty - 1 death on 4th postop day - infarct in globus pallidus - good result only in 1 post-encephalitic case, a young man -

(20) review of last 30 autopsy cases -

18 cases of sacular aneurysms of ant. circle of Willis - all had middle cerebral infarction in addition to hemorrhage in some cases +

(21) 3 cases - no contiguity between aneurysm + the subdural hematoma - Mayfield - 5 cases -

(22) 2 cases - thrombus 4-5 cm long after int. carotid ligation - 10 cm thrombus removed from second case after trapping operation -

Program of The Ladies' Auxiliary
of
The American Academy of Neurological Surgery

PRESIDENT — MRS. ALTA RANEY

SUNDAY, OCTOBER 11TH

6:00 P.M. COCKTAILS AND SUPPER AT HOME OF
DR. AND MRS. DAVID L. REEVES
109 PICACHO LANE, MONTECITO

MONDAY, OCTOBER 12TH

8:00-9:30 A.M. REGISTRATION, MEMBERS AND GUESTS.

11:00-12:00 NOON REGISTRATION, LADIES.

12:30 P.M. COCKTAILS AND LUNCHEON IN LOGGIA ROOM.
Members, Wives, and Guests.

AFTERNOON FOR THE LADIES.

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SHOPPING IN SANTA BARBARA

A FEW OF THE INTERESTING SHOPS

EL PASEO SHOPS
I. MAGNIN & CO.
THE CHILDREN'S SHOP
FLORENCE BOYD'S CHILDREN'S SHOP
ELIZABETH CLEMENS' SHOP
ELLIS HYDE'S SHOP
EL PRESIDIO SHOPS

FOUR INTERESTING ANTIQUE SHOPS

114 E. DE LA GUERRA STREET
730 ANACAPA STREET
39 E. DE LA GUERRA STREET
924 ANACAPA STREET

TUESDAY, OCTOBER 13TH

1:00 P.M. BUSES LEAVE BILTMORE HOTEL FOR BARBECUE
AT SAN MARCOS RANCH.
Members, Wives, and Guests.

SAN MARCOS RANCH

This barbecue is being held on a part of what is known as the San Marcos Ranch. From 1786 until 1833 this ranch was under the jurisdiction of the Santa Barbara Mission. The ruins of an old Franciscan Chapel are just across the highway. The Franciscans held this property as trustees for the Indians, and it was their plan to educate the Indians in the care of livestock and in farming and then allot to each Indian family a certain acreage; however, this never came to pass for the reason that in 1833 the Franciscan Church properties were confiscated by the Mexican Government.

The San Marcos Ranch consisted of 35,000 acres—the Santa Ynez River running through the entire property from East to West. In the year 1846 the Mexican Governor of California, Pio Pico, arranged to dispose of the San Marcos Ranch to Nicholas and Richard Den for a price of \$1,500.00, and it might be of interest to know how this transaction was completed. After the agreement between the Dens and the Governor of California regarding the purchase of the San Marcos Ranch was made, it was necessary for the purchasers to appear before Judge Carrillo of the District of Santa Barbara to obtain a legal title to the property. The Judge, therefore, ordered a survey of the ranch, and two men were appointed by him to make this survey. They were supplied with a rope 135 feet in length to be used in measuring the property, and they accomplished this task on horseback. A description was then prepared of the boundaries from this survey, and a deed was given to the Dens by Judge Carrillo. However, in order to show that the Dens were in physical possession of the property it was necessary to follow another procedure customary at that time which is described as follows:

Judge Carrillo, accompanied by witnesses and the Dens, went to the San Marcos Ranch and the Dens broke branches of trees, scattered handfuls of earth, and pulled plants from the ground. This demonstration established the Dens as the true owners of the San Marcos Ranch.

The Dens stocked the ranch with cattle, and the record shows that Richard Den, who lived on the San Marcos Ranch, reported it was not a safe place for man or beast to live due to the great number of ferocious bear.

The ranch has changed hands four times since the original purchase by the Dens. Much of the San Marcos Ranch is now to be used as a reservoir for the Cachuma Dam—a 35 Million Dollar Project—which is nearing completion.

WEDNESDAY, OCTOBER 14TH

1:00 P.M. LUNCHEON AT CORAL CASINO.
Members, Wives, and Guests.
Official photograph.

Swimming in the Casino pool,
Golf at the Valley Club, or
Sight-seeing tour of Santa Barbara.

6:30 P.M. COCKTAILS — BILTMORE HOTEL PRIVATE BAR.
Members, Wives, and Guests.

7:30 P.M. FORMAL BANQUET AND DANCING.
BILTMORE HOTEL LOGGIA ROOM.
Members, Wives, and Guests.

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TRANSPORTATION WILL BE FURNISHED FOR ALL SOCIAL EVENTS

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NOTES

1952-1953

THE AMERICAN ACADEMY OF NEUROLOGICAL SURGERY

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Vice-President, RUPERT B. RANEY

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RUPERT B. RANEY

THEODORE B. RASMUSSEN ✓

HENRY G. SCHWARTZ

GUY L. ODOM

HONORARY MEMBERS

1. Dr. Winchell McK. Craig, Mayo Clinic, Rochester, Minnesota.
2. Sir Geoffrey Jefferson, Department of Neurosurgery, The Royal Infirmary, Manchester 13, England.
3. Dr. W. Jason Mixter, Nobska West, Woods Hole, Massachusetts.
4. Dr. R. Glen Spurling, 405 Heyburn Bldg., Louisville 2, Kentucky.

EMERITUS MEMBER

1. Dr. Olan R. Hyndman, Veterans Adm. Hosp., Iowa City, Iowa.

ACTIVE MEMBERS

1. Dr. Eben Alexander, Jr., Bowman Gray School of Medicine, Winston-Salem 7, North Carolina.
2. Dr. George S. Baker, Section on Neurological Surgery, Mayo Clinic, Rochester, Minnesota.
3. Dr. H. Thomas Ballantine, Jr., Massachusetts Gen. Hosp., Boston 14, Massachusetts.
4. Dr. William F. Beswick, 685 Delaware Ave., Buffalo 9, New York.
5. Dr. Edwin B. Boldrey, Univ. of Calif. Medical School, San Francisco 22, California.
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9. Dr. Howard A. Brown, 384 Post St., San Francisco 8, California.
10. Dr. Harvey Chenault, 200 West Second St., Lexington 6, Kentucky.

11. Dr. Donald F. Coburn, 221 Plaza Time Bldg., Country Club Plaza, Kansas City 2, Missouri.
12. Dr. Edward W. Davis, 806 S. W. Broadway, Portland 5, Oregon.
13. Dr. Francis A. Echlin, 555 Park Ave., New York 21, New York.
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15. Dr. Arthur R. Elvidge, Montreal Neurological Institute, 3801 University St., Montreal 2, Quebec.
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17. Dr. Joseph P. Evans, Cincinnati General Hospital, Dept. of Surgery, Cincinnati 29, Ohio.
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25. Dr. Jess D. Herrmann, 525 Northwest Eleventh St., Oklahoma City 3, Oklahoma.
26. Dr. Henry L. Heyl, Hitchcock Clinic, Hanover, New Hampshire.
27. Dr. William S. Keith, Toronto Western Hosp., 399 Bathurst St., Toronto 2B, Ontario.
28. Dr. George L. Maltby, 203 State St., Portland 3, Maine.
29. Dr. Donald D. Matson, 300 Longwood Ave., Boston 15, Massachusetts.
30. Dr. Frank H. Mayfield, 2314 Auburn Ave., Cincinnati 19, Ohio.
31. Dr. Augustus McCravey, 540 McCallie Ave., Chattanooga 3, Tennessee.
32. Dr. William F. Meacham, 2122 West End Ave., Nashville 5, Tennessee.
33. Dr. John M. Meredith, 1200 E. Broad Street, Richmond 19, Virginia.
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39. Dr. John Raaf, 1010 Medical Dental Bldg., Portland 5, Oregon.
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41. Dr. Rupert B. Raney, 1136 W. Sixth St., Los Angeles 17, California.
42. Dr. Theodore B. Rasmussen, 950 E. 59th St., Chicago 37, Illinois.
43. Dr. David L. Reeves, 316 W. Junipero St., Santa Barbara, California.

44. Dr. R. C. L. Robertson, 411 Hermann Professional Bldg., 6410 Fannin St., Houston 5, Texas.
45. Dr. Stuart N. Rowe, 516 Medical Arts Bldg., 3700 Fifth Ave., Pittsburgh 13, Pennsylvania.
46. Dr. Henry G. Schwartz, Dept. of Surgery, Washington Univ., St. Louis 10, Missouri.
47. Dr. William B. Scoville, 85 Jefferson St., Hartford 14, Connecticut.
48. Dr. C. Hunter Shelden, 696 E. Colorado St., Pasadena 1, California.
49. Dr. Samuel R. Snodgrass, Univ. of Texas Medical Branch, Galveston, Texas.
50. Dr. Homer S. Swanson, 384 Peachtree St., N. E., Atlanta 3, Georgia.
51. Dr. William H. Sweet, Massachusetts General Hospital, Boston 14, Massachusetts.
52. Dr. Alfred Uihlein, Section on Neurological Surgery, Mayo Clinic, Rochester, Minnesota.
53. Dr. A. Earl Walker, Johns Hopkins Hospital, Division of Neurological Surgery, 601 N. Broadway, Baltimore 5, Maryland.
54. Dr. Exum Walker, 133 Doctors Bldg., Atlanta 3, Georgia.
55. Dr. Thomas A. Weaver, Suite 521, Third National Bldg., Dayton 2, Ohio.
56. Dr. Benjamin B. Whitcomb, 85 Jefferson St., Hartford 14, Connecticut.
57. Dr. Barnes Woodhall, Duke University—School of Medicine, Durham, North Carolina.

NOTES

GUESTS OF THE ACADEMY—1953

Frank M. Anderson, Los Angeles, Calif.

M. Hunter Brown, Los Angeles, Calif.

John D. Camp, Los Angeles, Calif.

Ralph B. Cloward, Honolulu, T.H.

Herbert G. Crockett, Los Angeles, Calif.

Henry M. Cuneo, Los Angeles, Calif.

John H. Drew, Mercer Island, Wash.

Howard W. Ducker, North Hollywood, Calif.

Capt. Richard Garrity, M.C., U.S.N.

John R. Green, Phoenix, Ariz.

Jerome F. Grunnagle, Pittsburgh, Pa.

Wolfgang Klemperer, Seattle, Wash.

Carl W. Rand, Los Angeles, Calif.

Robert W. Rand, Los Angeles, Calif.

A. T. Rasmussen, Pasadena, Calif.

William Trowbridge, Long Beach, Calif.

Arthur E. Wentz, Santa Barbara, Calif.

NOTES