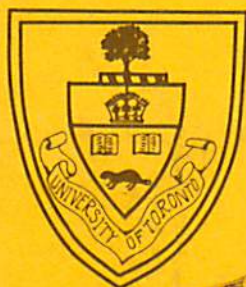


# THE AMERICAN ACADEMY OF NEUROLOGICAL SURGERY

*Theodore Rasmussen*



*HOSPITAL FOR SICK CHILDREN*

**Twentieth Annual Meeting**  
**TORONTO, ONTARIO**

**November 6 - 8, 1958**



THE AMERICAN ACADEMY  
OF NEUROLOGICAL SURGERY

Twentieth Annual Meeting



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# The American Academy Of Neurological Surgery

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Morley -

- NOTES -

No data on medulloblastoma -

Ezrin -

Carbohydrate containing

Thyroid

follicle

luteum

Carbohydrate free

growth

prolactin

ACTH

# Scientific Program

**THURSDAY, NOVEMBER 6, 1958**

***New Lecture Theatre, Toronto General Hospital***

**8:30 A.M. - Registration**

**MORNING SESSION - 9:00 A.M.**

## **1. STUDIES OF TISSUE CULTURES OF CEREBRAL TUMOURS**

*T. P. Morley, Toronto*

Tissue culture morphology from 50 gliomas and 20 meningiomas will be presented with special reference to a) identification of individual cells and b) the possibility of pathological diagnosis from the culture material. The place of the tissue culture method in the study of tumours will be discussed and its advantages and limitations examined. A preliminary report will be given on work in progress on the transference to rats and mice of human intracranial tumours both direct and from tissue culture.

## **2. HYPOTHALAMIC HYPOPHYSEAL INTER-RELATIONSHIPS**

*W. J. Horsey and C. Ezrin, Toronto*

The influence of the hypothalamus on the adeno-hypophysis is dependent upon an intact hypophyseal portal circulation. Numerous workers have demonstrated that experimental lesions in the hypothalamus and section of the hypophyseal stalk reduce the activity of the endocrine glands.

In a series of experiments on cats, posterior hypothalamic lesions were made using the Horsley-Clarke stereotactic instrument. Thyroid function was studied before and after operation using the protein-bound iodine level in the blood as an index of thyroid activity. Lesions placed in the premammillary area resulted in a significant sustained rise in the protein-bound iodine, suggesting an increase in thyroid activity. Standard histological techniques did not show any structural alterations of the pituitary or thyroid glands of these animals, when compared with those of control and normal cats. The physiological significance of these findings is discussed.

Of the six well recognized adeno-hypophyseal hormones, growth hormone, prolactin and ACTH are simple proteins and FSH, LH and TSH are glyco-proteins. The latter hormones or their precursors should be demonstrable in fixed tissues by the periodic acid-Schiff stain which

Delta cells most sensitive to pressure, trauma, etc. -

- NOTES -

Scott -

renders carbohydrate granules red. The classical basophils are strongly PAS positive but some cells which would be classified as chromophobes with standard stain also contain PAS positive granules. With an iron PAS stain two types of heavily granulated PAS cells can be distinguished and are referred to as beta and delta cells. The lightly granulated PAS positive cells are called gamma cells. The alpha cells are classical acidophils which do not take up the PAS stain. Chromophobes are cells without obvious granulation.

Evidence obtained from the literature and from our own work suggests that:

- 1) The alpha cells probably produce growth and prolactin.
- 2) Beta cells are linked with ACTH production.
- 3) Delta cells are held to be the source of one or more of the gonadotrophic hormones.
- 4) Gamma cells are the degranulated form of all of the heavily granulated types and their number is an index of the secretory activity of the adenohypophysis.

### 3. EXPERIMENTAL STUDY OF URETERAL REFLUX

*J. W. Scott, H. J. Hoffman and E. A. Silverstein*

A review of patients who have been paraplegic for more than ten years shows that hydronephrosis occurs in more than 40%. More than half of the deaths of paraplegic patients can be attributed to urological disease and hydronephrosis is a common feature. The hydronephrosis has been attributed to the damage to the wall of the ureter by infection, obstruction from a stone or stricture, or from reflux from a distended bladder although regurgitation of urine is seldom demonstrated.

In order to investigate the development of hydronephrosis, simultaneous recordings of the pressure within the ureter and bladder and electromyograms of the ureter of dogs were made while the bladder was being distended per urethra. The pressure within the ureter rose in parallel to the bladder pressure, but reflux did not occur. The ureter distended in proportion to the pressure of its contents. A bladder pressure exceeding 100 mm. of mercury would prevent urine entering the bladder from the ureter and the ureter would distend with freshly secreted urine until the pressure within the ureter reached about 100 mm. of mercury. Subsequent experiments showed that when the ureter was ligated the kidney would continue to secrete, distending the ureter until the pressure in the renal pelvis rose to over 90 mm. of mercury. Pressures of this order would prevent urine formation.

These experiments indicate that a bladder pressure of 100 mm. of mercury obstructs the ureter which distends with freshly secreted urine until kidney function is suppressed.

**COFFEE BREAK – South Classroom**



# Drake

- NOTES -

movie of 2 pt. - excellent cosmetic results  
with fairly good emotional movements

Lougheed - dogs - LP pressure measured -  
burr hole (dental drill - 3 mm) put in roof  
of mouth in front of pituitary - 5 cc blood  
injected - drowsy dogs all had elevated LP  
pressure - those with normal LP pressure were  
all alert & well -

Birse - 19 pt. - died TGH over 18 months -  
some treated conservatively, some surgically -  
results same in both groups - report concerns 8  
of conservatively treated group - 37-78 yr -  
2 had hypothermia - sections made of area of supply  
of 3 major cerebral arteries of each side, basal ganglia,  
& various arteries & the aneurysms - cerebral infarction  
found in 7 of the 8 cases, in area of supply of all  
vessels, usually microscopic - not correlated to  
size of subarachnoid hemorrhage - no emboli  
found - part. cerebral area infarcts probably due to  
brain swelling & compression of part. cerebral  
arteries of one or both<sup>8</sup> sides - in other areas,  
infarcts elsewhere due to ? ① spasm ② vascular disease  
③ hypertension - 2 pt. had no angiograms -

#### **4. INTRACRANIAL REPAIR OF THE FACIAL NERVE WITH AUTOGENOUS GRAFT FOLLOWING TOTAL REMOVAL OF ACOUSTIC NEUROMA**

*C. G. Drake, London, Ontario*

The glial cuff of the facial nerve extends only a few mms. beyond its emergence from the pons. Beyond this the nerve fibres assume a neurilemmal sheath, and theoretically regrowth through a graft is possible. In three patients following removal of an acoustic neuroma varying lengths of the facial nerve were saved. A length of the lateral femoral cutaneous nerve was united to the stump of the facial nerve by one or two sutures and then carried through the floor of the posterior fossa and left coiled in the wound just behind the mastoid process. At a separate procedure two weeks later, the peripheral end of the graft was jointed to the facial nerve, which had been divided just outside the stylomastoid foramen. Some return of facial function has been noted, and the degree of voluntary and emotional movement will be assessed.

#### **5. EXPERIMENTAL STUDY OF BLOOD IN THE SUBARACHNOID SPACE (A PRELIMINARY REPORT)**

*W. M. Lougheed and M. I. Tom, Toronto*

A method is presented of introducing blood into the subarachnoid space in the region of the Circle of Willis without creating any other physiological abnormalities. The effects of introduction of blood into the subarachnoid space, as well as gross and microscopic studies of the specimens, will be discussed.

#### **6. STUDIES OF THE CEREBROVASCULAR EFFECTS OF RUPTURE OF A BERRY ANEURYSM IN UNOPERATED CASES**

*Sheila Birse and M. I. Tom, Toronto*

#### **7. FUTURE PROGRESS REPORT OF EXPERIENCES WITH ANEURYSMS USING HYPOTHERMIC ANAESTHESIA**

*E. H. Botterell, Toronto*

The results of the aneurysms operated upon and unoperated during the past year will be reported and compared with the experience of previous years.

#### **8. ACUTE MENINGOENCEPHALITIS, MYELITIS AND POLYNEURITIS**

*J. C. Richardson, Toronto*

A multitude of clinical pictures are presented by the nervous system reactions to virus infections. The main syndromes are acute lympho-

→ others had hypogam or 9 meningococcal contrast studies -

Botterell - has stopped operating on ant. comm. aneurysms if pt. is very drowsy - <sup>NOTES</sup> - muscle wrapped aneurysms all died from recurrent bleeding in a few weeks - not happy about operating in 1<sup>st</sup> week after rupture if pt. is very drowsy -

78 cases - 29 dead - operated in 1<sup>st</sup> week

20 " - 14 " - conservating R<sub>x</sub>

45 cases - 3 died - operated after 1<sup>st</sup> week

Richardson -

Welch - 42 pt. - 30 to 89 yr. of age - 34 ♂, 8 ♀ -

Svien - retinal diastolic pressure 45% of brachial arterial pressure - normally equal in 2 eyes in 90% of normal - maximal difference 8 mm difference in 2 eyes in normal people - after carotid ligation (internal) diastolic retinal pressure 1 week later was 15-30 mm lower than on normal side - this has persisted in long term checkups (up to 10 yr) -

Boldrey - need to know condition of vertebrae as well as both carotids -

Murphey - doubts efficacy of anticoagulant therapy - doesn't operate if pt has complete hemiplegia - embolization, not to be done within 1 week of the carotid occlusion - pt. kept on anticoagula -

cytic meningitis, encephalitis, myelitis and toxic polyneuritis - (Guillain-Barre syndrome). Such acute neurological illnesses may provide difficult diagnostic problems with features mimicking surgical emergencies. Acute meningoencephalitis may present with focal seizures and asymmetrical cerebral swelling to resemble a cerebral tumour. A recent case of post-vaccinal encephalitis had focal brain stem features like an acoustic neuroma. Papilloedema and ataxia occurring with the Guillain-Barre' syndrome presented another similarity to cerebral tumour. Acute myelitis may have a sudden dramatic onset with back pain much like the myelopathy of a spinal tumour or pathological vertebral fracture. Diagnostic procedures such as pneumoencephalography, arteriography and myelography are frequently necessary in these cases but sometimes with deleterious effects. Illustrative cases will be reported.

## DISCUSSION

LUNCH    12:45                      Cafeteria, Toronto General Hospital

AFTERNOON SESSION    2:00 P.M.

SYMPOSIUM ON CAROTID INSUFFICIENCY    2:00 - 3:30 P.M.

### 9. SYMPTOMATOLOGY OF CAROTID INSUFFICIENCY

*Keasley Welch, Denver*

### 10. OPHTHALMODYNAMOMETRY IN CAROTID INSUFFICIENCY

*Hendrik J. Svien and Alfred Uihlein, Rochester*

### 11. ARTERIOGRAPHY IN CAROTID INSUFFICIENCY

*Edwin B. Boldrey, San Francisco*

### 12. INDICATIONS FOR AND RESULTS OF SURGICAL TREATMENT OF CAROTID INSUFFICIENCY

*Francis Murphey, Memphis*

DISCUSSION                              3:00 - 3:30

To be opened by: *Henry Barnett, Toronto, William H. Sweet, Boston and Homer S. Swanson, Atlanta*

### 13. TEMPORAL LOBE EPILEPSY CAUSED BY SMALL FOCAL LESIONS

*Murray Falconer, London, England*

*pp 24*

DISCUSSION

To be opened by: *T. A. Rasmussen, Montreal*

EXECUTIVE MEETING              4:00

*(page 24)*

Hendrick - 4 burr hole ~~epidural~~ - open dura in  
- NOTES -  
each case, because subdural hematoma has been  
found in several of these 20 cases - 2 deaths -  
residual 3<sup>rd</sup> nerve palsy in 1 pt. - otherwise the  
18 survivors are all well - follow up - hypothermia  
up to 38 days for cerebral edema when hematoma not found -  
Matson - in young infants blood should be started before  
any scalp incision is started -

Keith - no true tic douloureux in his 3 cases or in  
those reported by Jefferson & Siren - some sensory  
deficit in 20 of 22 pt. - 12 had erosion of  
pituitary tip - oval enlarged in 6 -

Jefferson - trigeminal neurinomas  $\frac{1}{20}$  as frequent  
as acoustic neurinomas -

Namby - has seen 2 pt., discovered accidentally when  
operating for tic douloureux -

McKenzie - has cut sensory root only for small tumors -  
8 yr. later pt still well & no sign of pressure  
from the tumor -

**FRIDAY, NOVEMBER 7, 1958**

**Lecture Theatre, The Hospital for Sick Children**

**MORNING SESSION - 9:00 A.M.**

#### **14. EXTRADURAL HEMATOMA IN CHILDHOOD**

*E. B. Hendrick, Toronto*

Twenty cases of epidural hematoma appearing in children over an 18 month period at the Hospital for Sick Children have been reviewed. The multiplicity of presenting signs will be discussed, and the method of treatment carefully appraised. Follow-up reports in these children from over a period of two to three years will be described in detail.

#### **15. NEURINOMA OF THE TRIGEMINAL NERVE**

*W. S. Keith, Toronto*

The first patient, an eleven year old girl was admitted to the Hospital for Sick Children in March, 1946, complaining of headache and loss of vision of the right eye due to a cataract. There was loss of function in the first and second divisions of the right trigeminal nerve. There was sharpening and elevation of the right anterior clinoid process. Exploration revealed a firm tumour occupying the bottom and medial part of the right middle fossa. This was a benign neurinoma. Subsequently this child has been found to be suffering from multiple intracranial and intraspinal neurinomas and meningiomas.

The second patient was a forty-eight year old woman who complained of headache and failing vision. There was diminished function in the whole of the right trigeminal nerve. There was erosion of a good deal of the inner end of the right petrous bone. A considerable amount of tumour tissue was removed from Meckel's cave through an extradural approach in the middle fossa. A year later the patient was bed-ridden with marked ataxia. Ventriculography was followed by posterior fossa exploration, with complete removal of a large neurinoma from the site of Meckel's cave. The patient made a good recovery.

The third patient was a sixty-four year old man, who had complained of a change in feeling in the right forehead for about three years. He gradually lost all sensation in the right side of his face and tongue. X-ray examination of the skull in May, 1958, showed a great deal of loss of the inner end of the right petrous bone. Films taken fourteen months earlier showed considerably less destruction of bone. Middle fossa exploration in June, 1958, revealed a large cystic space occupying Merckel's cave. The thin capsule enclosing this fluid was composed of neurinomatous tissue.

Feindel - 1st pt. had much night pain -  
pain relieved by section of fascia compressing  
ulnar nerve at elbow - nerve swollen just  
proximal to point of compression - total 5 cases -

NOTES -

Fisher - urea effect not due to diuresis, since it  
persists despite nephrectomy in monkeys (David)  
verified in cats - alkaline phosphatase is in  
blood vessel walls - succinic dehydrogenase located  
mainly in spinal cells - carbonic anhydrase  
is in red cells + spinal cells - latter is  
more active in choroid plexus than in kidney -  
CSF flow markedly reduced - returns to normal  
in 40-80 minutes - repeat injection has same  
effect - urea used in 15 pt. w/ head injury or trauma

Nashold - injections made q. 2-3 days -  
0.05 cc/min. - total of 2 cc injected over 20 min. -  
bilateral injections in 5 pt. - unilateral in 6 pt. -  
no changes in blood pressure - prothrombin time  
reduced in 4 pt. following injection, returned to  
normal subsequently - 10% concentration of acetyl  
choline -

## 16. COMPRESSION OF THE ULNAR NERVE IN THE CUBITAL TUNNEL

*W. Feindel, Saskatoon*  
*Introduced by Arthur Elvidge*

This is a review of a brief series of cases in which we have decompressed the nerve at the elbow rather than carry out the standard transplant to the anterior aspect of the arm. We have noted that the nerve was constricted just at the point where it passes from a superficial course to a deep submuscular plane under the aponeurotic arch attached to the olecranon and medial epicondyle. This arch joins the two heads of attachment of the flexor carpi ulnaris. The floor of this tunnel is formed by the medial ligament of the elbow joint. From anatomical dissection and the operative findings, it seems clear that some cases of tardy ulnar palsy, even without a history of definite injury to the elbow, can result from compression of the nerve in this tunnel.

## 17. THE EFFECT OF UREA ON CHOROID PLEXUS FUNCTION

*R. G. Fisher and J. H. Copenhauer, Ph. D., Hanover*

The choroid plexus of the cat shows a high degree of metabolic activity. It is more active than many areas of the brain and at least one-half to two-thirds as active as the kidney and liver.

Because of the recent work on urea reducing intracerebral tension, preliminary studies were made to determine what role urea has, if any, on the metabolic activity of the plexus. No changes have been found to date.

Javid has indicated that bilateral nephrectomy does not alter this effect of urea. Confirmation was made of this statement.

One presumes that the effect of urea must be based on intravascular osmotic changes. Studies involving concentrations of urea in the carotid artery and the CSF will be made.

## COFFEE BREAK

## 18. THE EFFECTS OF CHOLINERGIC AND ANTICHOLINERGIC AGENTS INJECTED INTO THE REGION OF THE GLOBUS PALLIDUS OF MAN // AM

*B. S. Nashold, Jr., North Carolina*  
*Introduced by Barnes Woodhall*

Few observations have been made on the effects of drugs introduced directly into specific regions of the central nervous system. The present report concerns observations in man after the intracerebral injection of acetylcholine chloride, oxyphenonium bromide, mecholyl, prostigmine, and normal physiological saline.



Bertrand - pt. less sensitive to benzidrine & more sensitive to chlorpromazine - mid point of forearm of Muenro is used as the reference point -

The drugs were injected into the region of the globus pallidus in persons with Parkinson's disease. Seven patients have been studied. Acetylcholine has been injected over 40 times, oxyphenonium bromide (Atropine) 20 times, prostigmine twice, mecholyl twice and saline 15 times. (Antrenyl)

The patients were alert and cooperative during the injection period. The immediate and prolonged effect of the agent on tremor and rigidity was studied using numerous objective measures. The blood pressure, pulse, respiration, and vasomotor changes were recorded. Psychological effects were noted. Movies were taken before, during, and after injections.

→ anticholinergic drug

Injection of the globus pallidus with saline produced no effect. Oxyphenonium bromide reduced the rigidity in the contralateral limbs with little effect on the tremor. Acetylcholine had a paradoxical effect depending on the concentration. Low concentrations have increased the tremor while higher concentrations reduced both tremor and rigidity without changing motor power. The effects may persist for as long as three months.

Injections of oxyphenonium into or near the internal capsule produced no effect. Acetylcholine in this area results in dysfunction of the cortical-spinal tracts. This is characterized by motor weakness, decrease in rigidity and tremor, Hoffman and Babinski signs in the contralateral extremities, and increased sweating over the contralateral half of the body. These signs always clear but may persist for as long as three weeks.

Acetylcholine in or near the hypothalamus or third ventricle resulted in sudden unconsciousness and signs of parasympathetic dysfunction which cleared in a matter of minutes.

### 19. STEREOTAXIC ELECTROLYTIC LESIONS OF THE GLOBUS PALLIDUS

*C. Bertrand, Montreal  
Introduced by Arthur Elvidge*

A review of the measurements used in some 80 cases of Parkinson's disease suggests that in most individuals, the lesion must be centered 15 mm. from the midline, 10 mm. below and 8 to 10 mm. behind the center of the foramen of Monro. Accurate localization is desirable if one is to avoid changes in behavior which may follow large lesions within the major hemisphere and particularly, bilateral lesions, as well as damage to surrounding structures such as the cortical-spinal and optic tracts. With the pneumotaxic guide the point to be studied is brought in line with the central ray of a standard X-ray tube; thus, in the lateral projection distances can be measured on a superimposed grid directly on the X-ray film with a minimal amount of magnification. In the antero-posterior projection, the needle electrode and the leucotome are introduced parallel to the sagittal plane at a measured distance from the midline.

Hayes - long tract signs due to pressure of tentorium  
on cerebral peduncle of side contralateral to the lesion -

- NOTES -

Hill - electrophoresis study - CSF protein probably  
comes from 2 sources, one within the ventricle &  
one from the subarachnoid space -

Visual, face and leg responses can be obtained from front to back along the postero-internal border of the globus pallidus. The optimum site for lesions lies just above and in front of the point for motor face stimulation. In most individuals this point falls at 15 mm. from the mid-line, 10 mm. below and 8 to 10 mm. behind the center of the foramen of Monro. Within these limits the section is centered slightly more posteriorly for tremor than for rigidity. A section so situated will produce marked hypotonia and good to excellent results. Destruction slightly more posteriorly may cause transitory choreiform movements. To be effective in choreoathetosis, the lesion must be carried further back and involve the corticospinal tract.

Lesions 12 mm. in diameter seem to produce durable results but the minimal effective lesion is still undetermined.

## DISCUSSION

### 20. THE SYNDROME OF ARTERIO-VENOUS ANOMALIES OF THE FUSIFORM GYRUS

*Lt. Col. G. J. Hayes, Washington, D. C.  
Introduced by Earl Walker*

Headache, confusion, long tract signs, which may be sensory or motor but are ipsilateral to the lesion with contralateral upper quadrant anopsia, and subarachnoid hemorrhage constitute a pattern which suggest arteriovenous anomaly of the fusiform gyrus. Four patients with arteriovenous anomalies located in the fusiform gyrus have presented these clinical findings, which have differed in degree but not in kind. Explanation for the syndrome is offered and one case is presented in detail.

### 21. AMERICAN ACADEMY OF NEUROLOGICAL SURGERY AWARD PAPER

#### CEREBROSPINAL FLUID PROTEINS GLYCOPROTEINS AND LIPOPROTEINS IN OBSTRUCTIVE LESIONS OF THE CENTRAL NERVOUS SYSTEM

*Norman Hill, Rochester, Minnesota*

### 22. CHIASMAL TUMORS

*Sir Geoffrey Jefferson, Manchester, England*

*pp. 24*

LUNCH

12:30

The Hospital for Sick Children

EXECUTIVE MEETING

De Saussure - 5 transient hemiparesis -  
- NOTES -

French - general anesthesia - at brachial artery -  
2 cm incision at mid point of upper arm - 18 needle  
in children, 15 in adults - bull dog clamps on artery  
distally - 20-30 cc hypaque in adults, 8-10 cc in  
children - first film exposed at end of injection -  
occasionally need to put a suture thru adventitia -  
has done bilateral injections at one sitting

Nulsen - happy with this technique -

Hayes - (for Murphy) polyethylene catheter advanced  
down the superficial temporal artery to the subclavian  
artery - has seen several films & excellent filling - in  
children - catheter admits 18 needle -

Sweet - difficult to get catheter down the artery in adults  
due to its tortuosity -

Alexander - transient hemiparesis in about 2% of cases -  
does film of abdomen immediately after the skull films  
found polycystic kidneys in 2 pt & aneurysms -

Uihlein - uses 3-4 cc of hypaque & does minimal number  
of injections -

SATURDAY, NOVEMBER 8, 1958

*Toronto General Hospital*

MORNING SESSION - 9:00 A.M.

SYMPOSIUM ON CEREBRAL ARTERIOGRAPHY

23. ARTERIOGRAPHY IN PATIENTS OVER SEVENTY

*R. L. De Saussure, Memphis*  
*Introduced by Francis Murphey*

71

1696

This is a review of our experiences with arteriography and, particularly, with Hypaque. From 1951 to January 1958, 1316 patients had cerebral angiograms performed at the Baptist Memorial Hospital. Most of these patients had at least four injections of dye and many of them had more than that. In this series, there were 110 patients who were 65 years old or older and 55 patients 70 years old or older, who were summarized. The only reactions which we have had have been in this group. Three deaths occurred following angiography but in only one of these was the death felt directly due to the angiogram. One patient is believed to have had a myocardial infarction and the second patient was moribund prior to arteriography and this was only carried out as a heroic measure. On this basis, it is our feeling that the mortality rate in patients over 70 is less than 2 per cent.

1.5%

24. VERTEBRAL ARTERIOGRAPHY

*L. French, Minneapolis*

This report concerns our experiences with cerebral angiography performed by injecting refluxly up the brachial artery. This procedure has been used by us since 1952 and with it successful filling can be obtained not only of the vertebral-basilar system but also of the carotid system. It has been used in adults as well as in children. The procedure is of value to outline the intracranial vascular tree; it can also be used to visualize the great vessels in the neck and has the advantage over the injection of the carotid or the vertebral artery separately in that visualization can usually be obtained with one injection. The only complication that has been observed is a diminution in the size of the radial pulsations persisting for a period of several months after the procedure. These patients showed no indications, however, of vascular insufficiency to the hand.

Murphy - injected subclavian artery beneath the scalenus  
anticus for complete - NOTES - angiography - no  
trouble in 2 pt - done by DeBakey (JAMA) -  
paresthesias in arms troublesome -  
Svenson - one lot of hypaque i.v. was slightly murky -  
killed dogs  $\bar{c}$  injection

Evans - unbuffered methylene blue in spinal canal  
produces paraplegia

## 25. RETROGRADE CEREBRAL ANGIOGRAPHY

*J. P. Murphy, Washington, D. C.  
Introduced by Wesley Gustafson*

Catheterization of the superficial temporal arteries under local or general anesthesia permits simple and accurate contrast visualization of the carotid and vertebral intracranial arterial circulations by means of retrograde injection. The procedure is not time-consuming and is practical.

## 26. COMPLICATIONS OF ARTERIOGRAPHY

*B. B. Whitcomb, Hartford*

Fortunately these complications have come to a rather abrupt halt since the use of Hypaque. Our series will be reviewed since our last publication on the topic.

### DISCUSSION

To be opened by: *William Meacham, Nashville*

### OPENING OF NEW NEUROSURGICAL UNIT

TORONTO GENERAL HOSPITAL

10:30

*Chairman of Meeting*

**Dr. E. H. Botterell**

*Opening of the Unit*

**Norman C. Urquhart**

*Chairman, Board of Trustees, Toronto General Hospital*

*Speakers:*

**Dr. Claude Bissell**, *President, University of Toronto*

**Dr. K. G. McKenzie**

**Sir Geoffrey Jefferson**

**Dr. Wilder Penfield**

**Dr. Jess Herrmann**

**Dr. F. G. Kergin**

*The Neurosurgical Unit on the 11th and 12th floors, and the Operating Rooms on the 2nd floor, open for visitors.*



Falconer - 2/3 incusural sclerosis -  
- NOTES -

Jefferson - 54 cases - histological verification in 49 -  
11 von Recklinghausen -  
27 astrocytomas of tubercal region -

# Program of The Women's Auxiliary

of

THE AMERICAN ACADEMY OF NEUROLOGICAL SURGERY

President: Mrs. Wesley Gustafson

WEDNESDAY, NOVEMBER 5, 1958

8:00 P.M. Keith's and Botterell's "At home" at the Botterells, Apt. 601, The Balmoral, 150 Balmoral Ave.

Suggested for Dinner: Imperial Room or Venetian Room, Royal York Hotel. Mary Millichamp's on Cumberland Avenue. Winston's on King Street. Park Plaza Hotel Roof Restaurant.

THURSDAY, NOVEMBER 6, 1958

11:00 A.M. Registration, The York Room, The Royal York Hotel.

12:00 Noon Sherry Party, Park Plaza Hotel.

1:00 P.M. Lunch and Fashion Show by "Creed's", Park Plaza Hotel.

6:00 P.M. President's Cocktail Party and Buffet Dinner, The Toronto Hunt. (Busses leave just East of Front Street entrance, Royal York Hotel, 5:45 P.M.).

FRIDAY, NOVEMBER 7, 1958

12:30 P.M. Cocktails and Luncheon, York Club.

Afternoon suggestions: Shopping, University Campus, Royal Ontario Museum, Art Gallery.

6:30 P.M. Annual formal banquet, Roof Garden, Royal York Hotel.

SATURDAY, NOVEMBER 8, 1958

A. M. Free.

8:00 P.M. Hockey Game - Boston vs Toronto, Maple Leaf Gardens. (Tickets available for those who wish to attend.)

before + after arteriogram + for 2 months after  
operation

-NOTES-

- 40 pt. - 45 arteries -
- 24 total occlusions - circulation restored in 8
- 21 arteries showed stenosis -
- 29 good results - arteries patent after 2 months -
- 8 pt. (11 arteries) normal now -
- 4 pt. - complications - 3 hematomas in neck - 2 died -
- 1 complete hemiplegia due to embolus -

Barnett - all cases investigated  $\bar{c}$  angiograph -  
~~suggested~~ certain cases selected for operation +  
others for anticoagulant Rx -

Sweet - in occasional cases the arterial vessels may  
show a pressure when the intra carotid pressure is  
unusually low - starts anticoagulant Rx after  
12-24 hr. postop - heparin stopped  $\frac{1}{2}$ -1 hr after  
arterial suture, wound packed open + closed only after  
heparin was stopped -

Swanson -

# Membership Roster

of

## THE AMERICAN ACADEMY OF NEUROLOGICAL SURGERY

FOUNDED OCTOBER 28, 1938

### HONORARY MEMBERS - 5

	<u>ELECTED</u>
<b>Dr. Winchell McK. Craig</b> Mayo Clinic, Rochester, Minnesota	1942
<b>Sir Geoffrey Jefferson</b> Department of Neurosurgery, The Royal Infirmary Manchester 13, England	1951
<b>Dr. W. Jason Mixter (deceased)</b> Nobska West, Woods Hole, Massachusetts	1951
<b>Dr. R. Eustace Semmes</b> 899 Madison Ave., Memphis 3, Tennessee	1955
<b>Dr. R. Glen Spurling</b> 405 Heyburn Bldg., Louisville 2, Kentucky	1942

### CORRESPONDING MEMBERS - 1

<b>Dr. O. William Stewart (deceased)</b> Montreal, Quebec	1948
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### SENIOR MEMBERS - 1

<b>Dr. Olan R. Hyndman</b> Veterans Administration Hospital Iowa City, Iowa	1941
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### ACTIVE MEMBERS - 66

<i>Member's Name</i> <i>Office Address</i>	<i>Wife's Name</i> <i>Home Address</i>	<i>Year</i> <i>Elected</i>
<b>Dr. Eben Alexander, Jr.</b> Bowman Gray Sch. of Medicine Winston-Salem 7, No. Carolina	<b>Betty</b> 521 Westover Ave. Winston-Salem, No. Carolina	1950
<b>Dr. George S. Baker</b> Section on Neurological Surgery Mayo Clinic Rochester, Minnesota	<b>Enid</b> Salem Road, Route 1 Rochester, Minn.	1940
<b>Dr. H. Thomas Ballantine, Jr.</b> Massachusetts General Hospital Boston 14, Massachusetts	<b>Elizabeth</b> 15 Common Street Dedham, Massachusetts	1951

<i>Member's Name—Office Address</i>	<i>Wife's Name—Home Address</i>	<i>Year Elected</i>
<b>Dr. William F. Beswick</b> 685 Delaware Avenue Buffalo 9, New York	<b>Phyllis</b>	<b>1949</b>
<b>Dr. Edwin B. Boldrey</b> Univ. of Calif. Medical School San Francisco 22, California	<b>Helen</b> 924 Hayne Road San Mateo, California	<b>1941</b>
<b>Dr. E. Harry Botterell</b> Medical Arts Building 280 Bloor Street, West Toronto 5, Ontario	<b>Margaret</b> 2 Meredith Crescent Toronto, Ontario, Canada	<b>1938</b>
<b>Dr. Spencer Braden</b> 1304 Hanna Building Cleveland 15, Ohio	<b>Mary</b>	<b>Founder</b>
<b>Dr. F. Keith Bradford</b> 410 Hermann Professional Bldg. 6410 Fannin Street Houston 25, Texas	<b>Byra</b> 3826 Linklea Drive Houston 25, Texas	<b>1938</b>
<b>Dr. Howard A. Brown</b> 384 Post Street San Francisco 8, California	<b>Dorothy</b> 127 San Pablo Avenue San Francisco, California	<b>1939</b>
<b>Dr. Harvey Chenault</b> 200 West Second Street Lexington 6, Kentucky	<b>Margaret</b> Alleghan, Nicholasville Rd. Lexington, Kentucky	<b>1949</b>
<b>Dr. Donald F. Coburn</b> 221 Plaza Time Building Country Club Plaza Kansas City 2, Missouri	<b>Max</b>	<b>1938</b>
<b>Dr. Edward W. Davis</b> 806 S. W. Broadway Portland 5, Oregon	<b>Barbara</b> 1714 N. W. 32nd Avenue Portland 10, Oregon	<b>1949</b>
<b>Dr. Francis A. Echlin</b> 164 East 74th Street New York 21, New York	<b>Letitia</b>	<b>1944</b>
<b>Dr. Dean H. Echols</b> 3503 Prytania Street New Orleans, Louisiana	<b>Fran</b> 1428 First Street New Orleans 13, Louisiana	<b>Founder</b>
<b>Dr. Arthur R. Elvidge</b> Montreal Neurological Institute 3801 University Street Montreal 2, Quebec		<b>1939</b>
<b>Dr. Theodore C. Erickson</b> 1300 University Avenue Madison 6, Wisconsin	<b>Emily</b>	<b>1940</b>

<b>Dr. Joseph P. Evans</b> University of Chicago Clinics Chicago 37, Illinois	<b>Hermene</b> 1234 East 56th Street Chicago, Illinois	<b>Founder</b>
<b>Dr. Robert W. Fisher</b> Hitchcock Clinic Hanover, New Hampshire	<b>Constance</b> 11 Ledyard Lane Hanover, New Hampshire	<b>1958</b>
<b>Dr. John D. French</b> Veterans Administration Hospital Long Beach 4, California	<b>Dorothy</b> 10772 Chalon Road Los Angeles 27, California	<b>1951</b>
<b>Dr. Lyle A. French</b> 2910 46th Avenue South Minneapolis 6, Minnesota	<b>Gene</b> 2868 West River Road Minneapolis 6, Minnesota	<b>1954</b>
<b>Dr. James G. Galbraith</b> 2020 15th Avenue South Birmingham, Alabama	<b>Peggy</b> 4227 Altamont Road Birmingham, Alabama	<b>1947</b>
<b>Dr. Everett G. Grantham</b> 405 Heyburn Building Louisville 2, Kentucky	<b>Mary Carmel</b> 410 Mockingbird Hill Road Louisville 7, Kentucky	<b>1942</b>
<b>Dr. John R. Green</b> 550 West Thomas Road Patio A, Suite 202 Phoenix, Arizona	<b>Georgia</b> 88 Country Club Drive Phoenix, Arizona	<b>1953</b>
<b>Dr. James Greenwood, Jr.</b> 1105 Hermann Prof. Bldg. 6410 Fannin Street Houston 25, Texas	<b>Mary</b> 3394 Chevy Chase Blvd. Houston 19, Texas	<b>1952</b>
<b>Dr. Wesley A. Gustafson</b> 700 North Michigan Avenue Chicago 11, Illinois	<b>Jennie</b> 2129 Central Park Evanston, Illinois	<b>1942</b>
<b>Dr. Wallace B. Hamby</b> 140 Linwood Avenue Buffalo 9, New York	<b>Hellyn</b> 19 Middlesex Road Buffalo 16, New York	<b>1941</b>
<b>Dr. Hannibal Hamlin</b> 270 Benefit Street Providence 3, Rhode Island	<b>Margaret</b>	<b>1948</b>
<b>Dr. Jess D. Herrmann</b> 525 Northwest Eleventh Street Oklahoma City, 3, Oklahoma	<b>Mary Jo</b> 1519 Glenwood Oklahoma City, Oklahoma	<b>1938</b>
<b>Dr. Henry L. Heyl</b> Hitchcock Clinic Hanover, New Hampshire	<b>Katharine</b> Norwich, Vermont	<b>1951</b>

<i>Member's Name – Office Address</i>	<i>Wife's Name – Home Address</i>	<i>Year Elected</i>
<b>Dr. William S. Keith</b> Toronto Western Hospital 399 Bathurst Street Toronto 2B, Ontario	<b>Eleanor</b>	<b>Founder</b>
<b>Dr. Ernest W. Mack</b> 505 Arlington Ave., Suite 212 Reno, Nevada	<b>Roberta</b>	<b>1956</b>
<b>Dr. George L. Maltby</b> 203 State Street Portland 3, Main	<b>Sim</b> Falmouth, Foreside, Maine	<b>1942</b>
<b>Dr. Donald D. Matson</b> 300 Longwood Avenue Boston 15, Massachusetts	<b>Dorothy</b> 44 Circuit Road Chestnut Hill 67, Mass.	<b>1950</b>
<b>Dr. Frank H. Mayfield</b> 506 Oak Street Cincinnati 19, Ohio	<b>Queenie</b> 3519 Principio Avenue Cincinnati 26, Ohio	<b>Founder</b>
<b>Dr. Augustus McCravey</b> 540 McCallie Avenue Chattanooga 3, Tennessee	<b>Helen</b> 130 North Crest Road Chattanooga, Tennessee	<b>1944</b>
<b>Dr. Robert L. McLaurin</b> Cincinnati General Hospital Cincinnati, Ohio	<b>Katherine</b> 2461 Grandin Road Cincinnati 8, Ohio	<b>1955</b>
<b>Dr. William F. Meacham</b> 2122 West End Avenue Nashville 5, Tennessee	<b>Alice</b> 3513 Woodmont Blvd. Nashville 12, Tennessee	<b>1952</b>
<b>Dr. John M. Meredith</b> 1200 East Broad Street Richmond 19, Virginia	<b>Etta</b> 3 Greenway Lane Richmond, Virginia	<b>1946</b>
<b>Dr. Edmund J. Morrissey</b> 450 Sutter Street, Suite 520 San Francisco 8, California	<b>Kate</b> 2700 Vallejo Street San Francisco, California	<b>1941</b>
<b>Dr. Francis Murphey</b> Suite 525, Physicians & Surgeons Building Memphis 3, Tennessee	<b>Roder</b>	<b>Founder</b>
<b>Dr. Frank E. Nulsen</b> Division of Neurosurgery University Hospitals Cleveland 6, Ohio	<b>Ginny</b> 2691 Landon Shaker Heights, Ohio	<b>1956</b>
<b>Dr. Guy L. Odom</b> Duke Univ. School of Medicine Durham, North Carolina	<b>Suzanne</b> 2812 Chelsea Circle Durham, North Carolina	<b>1946</b>

<b>Dr. J. Lawrence Pool</b> 710 West 168th Street New York 32, New York	<b>Angelino</b>	<b>1940</b>
<b>Dr. Robert Pudenz</b> 744 Fairmount Avenue Pasadena 1, California	<b>Ruth</b> 2036 San Pasqual Pasadena 10, California	<b>1943</b>
<b>Dr. John Raaf</b> 1010 Medical Dental Building Portland 5, Oregon	<b>Lorene</b> 390 S. W. Edgecliff Road Portland 1, Oregon	<b>Founder</b>
<b>Dr. Aiden A. Raney</b> 2010 Wilshire Blvd. Los Angeles 57, California	<b>Mary</b>	<b>1946</b>
<b>Dr. Rupert B. Raney</b> 2010 Wilshire Blvd. Los Angeles 57, California	<b>Alta</b> 435 S. Curson Avenue Los Angeles 36, California	<b>1939</b>
<b>Dr. Theodore B. Rasmussen</b> Montreal Neurological Institute 3801 University Street Montreal 2, Quebec, Canada	<b>Catherine</b> 29 Surrey Drive Montreal 16, Quebec, Canada	<b>1947</b>
<b>Dr. David L. Reeves</b> 316 West Junipero Street Santa Barbara, California	<b>Marjorie</b> 595 Picacho Lane, Montecito Santa Barbara, California	<b>1939</b>
<b>Dr. R. C. L. Robertson</b> 411 Hermann Professional Bldg. 6410 Fannin Street Houston 25, Texas	<b>Marjorie</b>	<b>1946</b>
<b>Dr. Stuart N. Rowe</b> 302 Iroquois Building 3600 Forbes Street Pittsburgh 13, Pennsylvania	<b>Elva</b> 6847 Reynolds Street Pittsburgh 8, Pennsylvania	<b>1938</b>
<b>Dr. Henry G. Schwartz</b> Department of Surgery Washington University Saint Louis 10, Missouri	<b>Reedie</b> 2 Briar Oak Saint Louis 24, Missouri	<b>1942</b>
<b>Dr. William B. Scoville</b> 85 Jefferson Street Hartford 14, Connecticut	<b>Emily</b>	<b>1944</b>
<b>Dr. C. Hunter Shelden</b> 744 Fairmount Avenue Pasadena 1, California	<b>Betty</b> 1345 Bedford Road San Marino, California	<b>1941</b>



<b>Dr. Samuel R. Snodgrass</b> Univ. of Texas Medical Branch Galveston, Texas	<b>Margarot</b>	<b>1939</b>
<b>Dr. Hendrik J. Svien</b> 200 First Street, S.W. Rochester, Minnesota	<b>Nancy</b> 827 8th Street, S.W. Rochester, Minnesota	<b>1958</b>
<b>Dr. Homer S. Swanson</b> 384 Peachtree Street, N.E. Atlanta 3, Georgia	<b>La Myra</b> 1951 Mt. Paran Road, West Atlanta, Georgia	<b>1949</b>
<b>Dr. William H. Sweet</b> Massachusetts General Hospital Boston 14, Massachusetts	<b>Mary</b> 35 Chestnut Place Brookline 46, Massachusetts	<b>1950</b>
<b>Dr. Alfred Uihlein</b> Section on Neurological Surgery Mayo Clinic Rochester, Minnesota	<b>Ione</b> Sunny Slopes, Route 1 Rochester, Minnesota	<b>1950</b>
<b>Dr. A. Earl Walker</b> Johns Hopkins Hospital Division of Neurological Surgery 601 N. Broadway Baltimore 5, Maryland	<b>Terryo</b>	<b>1938</b>
<b>Dr. Exum Walker</b> Suite 423, 340 Boulevard, N.E. Atlanta 12, Georgia	<b>Frances</b> 1819 Greystone Road, N.W. Atlanta, Georgia	<b>1938</b>
<b>Dr. Arthur A. Ward, Jr.</b> Univ. Of Wash. Sch. of Medicine Division of Neurosurgery Seattle 5, Washington	<b>Janet</b>	<b>1953</b>
<b>Dr. Thomas A. Weaver</b> 146 Wyoming Street Dayton 2, Ohio	<b>Mary</b>	<b>1943</b>
<b>Dr. Keasley Welch</b> 420 East 9th Street Denver 20, Colorado	<b>Elizabeth</b> 2432 South Birch Street Denver, Colorado	<b>1958</b>
<b>Dr. Benjamin B. Whitcome</b> 85 Jefferson Street Hartford 14, Connecticut	<b>Margaret</b> 38 High Farms Road West Hartford, Connecticut	<b>1947</b>
<b>Dr. Barnes Woodhall</b> Duke Univ. School of Medicine Durham, North Carolina	<b>Frances</b> 4006 Dover Rd., Hope Valley Durham, North Carolina	<b>1941</b>

# Guests of The Academy

1957

- DR. H. J. M. BARNETT . . . . . Toronto, Ontario  
✓ DR. CLAUDE BERTRAND . . . . . Montreal, Quebec  
DR. SHEILA BIRSE . . . . . Toronto, Ontario  
DR. CLAUDE BISSELL . . . . . Toronto, Ontario  
DR. JOE W. CLUFF . . . . . Vancouver, B. C.  
DR. GEORGE A. COHN . . . . . Buffalo, N. Y.  
DR. RICHARD De SAUSSURE . . . . . Memphis, Tennessee  
DR. CHARLES G. DRAKE . . . . . London, Ontario  
DR. CAL EZRIN, . . . . . Toronto, Ontario  
MR. MURRAY FALCONER . . . . . London, England  
✓ DR. WILLIAM FEINDEL . . . . . Saskatoon, Saskatchewan  
DR. ROSS FLEMING . . . . . Toronto, Ontario  
DR. S. S. B. GILDER . . . . . Toronto, Ontario  
DR. W. A. HAWKE . . . . . Toronto, Ontario  
COLONEL GEORGE HAYES . . . . . Washington, D. C.  
DR. BRUCE HENDRICK . . . . . Toronto, Ontario  
DR. ROBERT HETHERINGTON . . . . . Kingston, Ontario  
DR. NORMAN HILL . . . . . Rochester, Minnesota  
DR. W. J. HORSEY . . . . . Toronto, Ontario  
✓ DR. ROBERT HUGHES . . . . . Hamilton, Ontario  
DR. H. H. HYLAND . . . . . Toronto, Ontario  
DR. A. T. JOUSSE . . . . . Toronto, Ontario  
DR. FRED KERGIN . . . . . Toronto, Ontario  
DR. GEORGE LIVESAY . . . . . Chicago, Illinois  
DR. W. M. LOUGHEED . . . . . Toronto, Ontario  
DR. J. A. MacFARLANE . . . . . Toronto, Ontario  
DR. C. P. McCORMICK . . . . . Toronto, Ontario  
DR. K. G. McKENZIE . . . . . Toronto, Ontario  
DR. T. P. MORLEY . . . . . Toronto, Ontario  
✓ DR. J. P. MURPHY . . . . . Washington, D. C.  
DR. BLAINE NASHOLD . . . . . Durham, North Carolina  
DR. A. M. PARK . . . . . Toronto, Ontario  
DR. WILDER PENFIELD . . . . . Montreal, Quebec  
DR. J. S. PRICHARD . . . . . Toronto, Ontario  
DR. J. C. RICHARDSON . . . . . Toronto, Ontario  
DR. JOHN SCOTT . . . . . Toronto, Ontario  
DR. JACK SHARPE . . . . . Toronto, Ontario

**DR. J. L. SILVERSIDES . . . . . Toronto, Ontario**  
**DR. W. D. STEVENSON. . . . . Halifax, Nova Scotia**  
**DR. R. R. TASKER. . . . . Toronto, Ontario**  
**DR. CHARLES TAYLOR . . . . . Calgray, Alberta**  
**DR. MARY TOM. . . . . Toronto, Ontario**  
**DR. NORMAN URQUHART. . . . . Toronto, Ontario**  
**DR. J. ALLAN WALTERS. . . . . Toronto, Ontario**  
**DR. PETER WESTHAYSEN. . . . . Hammond, Indiana**

## Past Meetings of The Academy

Hotel Netherland Plaza, Cincinnati, Ohio . . . . .	October 28-29, 1938
Roosevelt Hotel, New Orleans, Louisiana . . . . .	October 27-29, 1939
Tudor Arms Hotel, Cleveland, Ohio . . . . .	October 21-22, 1940
Ambassador Hotel, Los Angeles, California . . .	November 11-15, 1941
The Palmer House, Chicago, Illinois . . . . .	October 16-17, 1942
Hart Hotel, Battle Creek, Michigan . . . . .	September 17-18, 1943
Ashford General Hospital	
White Sulphur Springs, West Virginia . . . . .	September 7-9, 1944
The Homestead, Hot Springs, Virginia . . . . .	September 9-11, 1946
Broadmoor Hotel, Colorado Springs, Colorado . .	October 9-11, 1947
Windsor Hotel, Montreal, Canada . . . . .	September 20-28, 1948
Benson Hotel, Portland, Oregon . . . . .	October 25-27, 1949
Mayo Clinic, Rochester, Minnesota . . . . .	September 28-30, 1950
Shamrock Hotel, Houston, Texas . . . . .	October 4-6, 1951
Waldorf Astoria Hotel, New York City . .	September 29-October 1, 1952
Biltmore Hotel, Santa Barbara, California . . . . .	October 12-14, 1953
Broadmoor Hotel, Colorado Springs, Colorado . . .	October 21-23, 1954
The Homestead, Hot Springs, Virginia . . . . .	October 27-29, 1955
Camelback Inn, Phoenix, Arizona . . . . .	November 8-10, 1956
The Cloister, Sea Island, Georgia . . . . .	November 11-13, 1957

### PAST PRESIDENTS

DEAN ECHOLS – 1938-39
SPENCER BRADEN – 1940
JOSEPH P. EVANS – 1941
FRANCIS MURPHEY – 1942
FRANK H. MAYFIELD – 1943
A. EARL WALKER – 1944
BARNES WOODHALL – 1946
WILLIAM S. KEITH – 1947
HOWARD BROWN – 1948
JOHN RAAF – 1949
E. HARRY BOTTERELL – 1950
WALLACE B. HAMBY – 1951
HENRY SCHWARTZ – 1952
J. LAWRENCE POOL – 1953
RUPERT RANEY – 1954
DAVID L. REEVES – 1955
STUART N. ROWE – 1956
ARTHUR ELVIDGE – 1957

### PAST VICE-PRESIDENTS

FRANCIS MURPHEY – 1941
WILLIAM S. KEITH – 1942
JOHN RAAF – 1943
RUPERT B. RANEY – 1944
ARTHUR ELVIDGE – 1946
JOHN RAAF – 1947
ARTHUR ELVIDGE – 1948
F. KEITH BRADFORD – 1949
DAVID L. REEVES – 1950
HENRY SCHWARTZ – 1951
J. LAWRENCE POOL – 1952
RUPERT B. RANEY – 1953
DAVID L. REEVES – 1954
STUART N. ROWE – 1955
JESS D. HERRMANN – 1956
GEORGE BAKER – 1957

### PAST SECRETARY-TREASURERS

FRANCIS MURPHEY – 1938-39-40
A. EARL WALKER – 1941-42-43
THEODORE C. ERICKSON – 1944-46-47
WALLACE B. HAMBY – 1948-49-50
THEODORE RASMUSSEN – 1951-52-53
EBEN ALEXANDER, Jr. – 1954-55-56-57

