STATE ACADEMIES

THE VIRGINIA ACADEMY OF SCIENCE

THE Virginia Academy of Science held its thirteenth annual meeting at the University of Richmond on May 2 and 3, 1935, with a registration of 503.

The address at the open meeting Friday night was delivered by Alexander Wetmore, director of the U. S. National Museum, and 168 papers were read before the various sections.

The annual prize of fifty dollars was awarded to Margaret Hess for a paper entitled "Edema and General Atrophy in *Stenostomum oesophagium* Associated with Atrophy of the Protonephridium." Honorable mention was also accorded two other papers, one by Herbert Trotter, Jr., on the "Acceleration of Electrons to High Energies" and the other by Robert E. Lutz and Fred S. Palmer on "The Structures of the Dimolecular Reduction Products of Dibenzoylethylene."

The research committee reported that grants in aid of research had been made during the year to J. W. Beams, W. B. Bell, Walter S. Flory, H. B. Haag, C. C. Speidel and Edward Steidtmann.

The officers elected for the coming year are as follows: Ida Sitler, of Hollins College, becomes president, having been president-elect for the past year; H. E. Jordan, of the University of Virginia, president-elect; E. C. L. Miller, secretary-treasurer; W. H. Keeble, of Randolph-Macon College, councilor.

The following officers of sections were elected:

Astronomy, Mathematics and Physics: Mary J. Cox, *chairman;* R. C. Weaver, *secretary.*

Biology: Harry G. Walker, *chairman;* Robert F. Smart, *subchairman;* George W. Chappelear, Jr., *secretary.*

Education: J. L. Manahan, *chairman;* William L. Prince, *secretary.*

Chemistry: R. E. Hussey, *chairman;* Roy S. Cook, *secretary.*

Geology: Arthur Bevan, *chairman;* William M. McGill, *secretary.*

Medical Sciences: L. E. Starr, *chairman;* H. B. Haag, *secretary.*

Psychology: John M. McGinnis, *chairman;* R. C. Sommerville, *secretary.*

At the close of the meeting the members of the geology section made a field trip to the topaz deposits in Amelia County, and the members of the biology section made a field trip to the Dismal Swamp.

E. C. L. MILLER,
Secretary

THE KANSAS ACADEMY OF SCIENCE

THE sixty-seventh annual meeting of the Kansas Academy of Science was held at Lawrence, Kansas, from March 28 to 30. Professor Wm. H. Matthews, associate professor of physics, Kansas State Teachers College, Pittsburg, Kansas, presided, and Dr. F. C. Gates, professor of botany, Kansas State College, served as secretary *pro-tem,* following the death of Dr. George E. Johnson. Two hundred and eighty persons registered for the meetings. There were 138 papers listed on the general and sectional programs, and four high schools gave demonstrations for the Junior Academy meeting, of which Dr. Hazel Branch, of the University of Wichita, has general charge.

Sectional meetings were held for botany, zoology, medical science, chemistry, physics, psychology, entomology and the Junior Academy of Science. Special tribute was paid to the late Dr. Geo. E. Johnson, who served admirably as secretary since 1928, for his untiring efforts in behalf of the academy.

The following addresses were special features of the meeting: "Glimpses of Germany," by Dr. Ralph H. Major, Kansas University; the presidential address by President Matthews on "Scientific Development and Investigation in Southeast Kansas," and "Tree Rings and Climate in Relation to Civilizations of the Southwest," by Dr. A. E. Douglass, University of Arizona.

The new officers elected are: W. J. Baumgartner, *president;* L. Oncley, *first vice-president;* H. H. Hall, *second vice-president;* Roger C. Smith, *secretary;* H. A. Zinszer, *treasurer,* and F. C. Gates, *editor-in-chief* of the *Transactions* of the Kansas Academy of Science, whose term of office is three years. W. J. Baumgartner was elected managing editor, and four associate editors were chosen. They are C. A. Kelly, E. O. Deere, W. W. Floyd and Robert Taft.

Chairmen of sections for 1935–1936 are: L. E. Melchers, botany; C. H. Whitnah, chemistry; Kathleen Doering, entomology; H. A. Zinszer, physics; Bert Nash, psychology; James E. Ackert, zoology; Hazel Branch, Junior Academy.

The next annual meeting of the academy will be at the Kansas State Teachers College, Emporia, Kansas, in the spring of 1936.

ROGER C. SMITH,
Secretary

THE ARKANSAS ACADEMY OF SCIENCES, ARTS AND LETTERS

THE nineteenth annual meeting of the Arkansas Academy of Sciences, Arts and Letters was held at Henderson State Teachers College on Friday and Saturday, April 19 and 20. A very satisfactory representation of the membership was in attendance.

On Friday evening, Professor H. L. Minton, of the Arkansas State Teachers College of Conway, delivered an illustrated public address on "The Tornado in the United States." On Saturday morning, a field trip was led by the state geologist, Dr. George C. Branner, to the Magnet Cove region.

Officers elected for the ensuing year are as follows:

President, Dr. Hugh H. Hyman, Henderson State Teachers College.

Vice-president, Professor W. C. Munn, Magnolia A. and M. College.

Secretary, Dr. Lewis M. Turner, University of Arkansas.

Treasurer, Dr. William R. Horsfall, Monticello A. and M. College.

Editor, Professor M. Dennison, Henderson State Teachers College.

The meeting next year will be at Monticello A. and M. College at Monticello.

LEWIS M. TURNER,
Secretary

THE SOUTH DAKOTA ACADEMY OF SCIENCE

THE twentieth annual meeting of the South Dakota Academy of Science was held at Dakota Wesleyan University, Mitchell, South Dakota. The attendance was unusually good. Twenty-nine papers were read by members. The guest speaker was Dr. J. Howard Mathews, director of the course in chemistry at the University of Wisconsin, who spoke on the subject, "The Use of Scientific Methods in the Detection of the Criminal."

The following officers were elected for the year 1935–36:

President, Wm. H. Powers, South Dakota State College.

First Vice-president, Gregg M. Evans, Yankton College.

Second Vice-president, Charles A. Hunter, University of South Dakota.

Secretary-treasurer, A. L. Haines, University of South Dakota.

A. L. HAINES,
Secretary-Treasurer

SCIENTIFIC APPARATUS AND LABORATORY METHODS

A NEW MATERIAL FOR CORROSION PREPARATIONS

CORROSION preparations have yielded a great deal to our knowledge of the vascular system and to our knowledge of hollow organs. The general technique and the limitations of the method are fairly well defined through many years of use. To state the procedures briefly, a vessel or cavity is first filled with a solidifying mass and then the soft tissues, or both the soft tissue and bone, surrounding the mass, are removed.

A wide variety of solidifying masses have been used; waxy or fatty masses, alloys of low fusion point and masses prepared from guncotton. These guncotton masses have found considerable favor because, in contrast to the metallic or wax masses, they may be injected cold. Further, they are commonly less fragile than the wax masses and more complete than the metallic injections. Originally introduced, at least into the literature, by Schiefferdecker[1] with the use of celloidin, the materials have been widely altered. One common method, especially about hospital laboratories, is to make use of discarded x-ray films as a base for preparing the mass. In 1929, at the meeting of the American Association of Anatomists at Rochester, I demonstrated the use of the then recently introduced brush pyroxylin lacquers in the preparation of corrosions.[2] The arteries of the white rat were used for demonstration. Such fine details as the glomeruli of the kidney were beautifully shown. The use of these commercial lacquers had the advantage that the pigments were already provided. The disadvantage was that the solvent was not completely miscible with water, and as a result the mass would set slowly. Recently these lacquers are no longer readily available, except through the automobile paint trade. Various modifications have been tried, such as allowing these commercial lacquers to solidify in air and then suspending the solids in acetone. The results are satisfactory, but the method is troublesome.

The disadvantage of pyroxylin masses had always been due to the low percentage of concentration that it was possible to use. This resulted in great shrinkage, particularly noticeable in the larger blood vessels. The working rule of those who have pursued the corrosion method has always been to use wax or metal for studying larger structures and pyroxylin masses for studying the finer ramifications.

This difficulty of shrinkage has been in part overcome, and a very satisfactory and easily working mass has been simply obtained by using one of the guncottons devised for the lacquer industry. Use has already been made of low viscosity guncotton for microscopic technique.[3] The feature of this material is that a solution containing approximately 50 per cent. solids can

[1] Schiefferdecker, *Arch. Anat. Phys.*, 1882; *Anat. Abt.*, p. 201.

[2] *Anat. Rec.*, 42: 1, March, 1929.

[3] Saul Ruby, *Anat. Rec.*, 55: sup. 74, 1933.