- Retiring Vice-president, W. A. Oldfather, University of Illinois, Urbana, Ill.
- Secretary, Frederick E. Brasch, Library of Congress, Washington, D. C.
- Section M (Engineering):
 - Vice-president, C. R. Richards, Lehigh University, Bethlehem, Pa.
 - Retiring Vice-president, C. R. Richards, Lehigh University, Bethlehem, Pa.
 - Secretary, N. H. Heck, U. S. Coast and Geodetic Survey, Washington, D. C.

Section N (Medical Sciences):

- Vice-president, Rufus I. Cole, Rockefeller Hospital, New York City.
- Retiring Vice-president, A. J. Carlson, University of Chicago, Chicago, Ill.
- Secretary, A. J. Goldforb, College of the City of New York, New York City.
- Section O (Agriculture):
 - Vice-president, C. F. Marbut, U. S. Department of Agriculture, Washington, D. C.
 - Retiring Vice-president, C. V. Piper, deceased.
- Secretary, P. E. Brown, Iowa State College, Ames, Iowa.
- Section Q (Education):
 - Vice-president, Melvin E. Haggerty, University of Minnesota, Minneapolis, Minn.
 - Retiring Vice-president, Otis W. Caldwell, Columbia University, New York City.
 - Secretary, A. S. Barr, University of Wisconsin, Madison, Wis.

Permanent Secretary³

Burton E. Livingston, Johns Hopkins University, Baltimore, Md. (Association mail address: Smithsonian Institution Building, Washington, D. C.)

General Secretary³

W. J. Humphreys, U. S. Weather Bureau, Washington, D. C.

$Treasurer^3$

John L. Wirt, Carnegie Institution of Washington, Washington, D. C.

Secretary of the Council and Program Editor

Sam F. Trelease, Columbia University, New York City.

Executive Assistant

Sam Woodley, Smithsonian Institution Building, Washington, D. C.

Auditor

R. B. Sosman, Geophysical Laboratory, Washington, D. C.

News Manager

Austin H. Clark, U. S. National Museum, Washington, D. C.

³ The permanent secretary, the general secretary and the treasurer are each elected for a term of four years; their terms of office expire at the end of the fifth New York meeting.

Manager of Exhibition

H. S. Kimberly, Smithsonian Institution Building, Washington, D. C.

Members of the Executive Committee of the Council for the Calendar Year 19264

See the Council Roll and the Roll of the Executive Committee given below.

THE COUNCIL ROLL AT PHILADELPHIA

The affairs of the association are entirely in the charge of the council, which consists of the president, the fifteen vice-presidents, the treasurer, the general secretary, the permanent secretary, the fifteen section secretaries, the council representatives of the affiliated societies and state academies, the eight selected council members and those members of the executive committee who are not otherwise members of the council. Past presidents of the association and the presidents of the divisions and local branches are officially invited to attend council sessions.

Each affiliated organization is asked each year, about March 1, to name its council representative or representatives for the year and for the next annual meeting. Each representative holds office till his successor is named and each is *ex officio* a member of the section committee to which his scientific work is most closely related.

It is desirable that affiliated organizations should name as their council representatives persons who are likely to attend the annual meeting and who will be able to take part in the proceedings of the council.

The complete roll of the council for the eighty-third meeting is shown below, arranged alphabetically. Each member's name is followed by an italic phrase, showing his status in the council. The record of attendance at the five Philadelphia sessions is shown by numerals that precede the members' names, these numbers representing, respectively, the sessions on Monday, Tuesday, Wednesday, Thursday and Friday, December 27 to December 31. Thus, the numerals 2 and 3 before a name indicate that the member whose name is so marked was present at the Tuesday and Wednesday sessions but was absent from the other sessions. Each member's record of attendance was submitted to him by mail before this list was prepared, with the request that needed corrections be made, but it is possible that a few errors may still require correction. In such cases the permanent secretary's office should be promptly informed, so that the official record of attendance at the Philadelphia council sessions may be entirely correct. A few substitutes were named for members who could not come

⁴ The number in parentheses denotes the calendar year at the end of which the member's term of office expires. to Philadelphia, and these are named and so indicated in the list.

The council holds sessions only at the annual meetings of the association and attendance at these sessions should be as full as possible. The published records of attendance at council sessions furnish a means by which members of the association and of the affiliated organizations may be informed as to which council members are most regular in attendance and which ones name substitutes when they are themselves unable to attend. It should be noted that the first council session, on the afternoon preceding the opening session of the annual meeting, is generally the most important, but weighty matters are considered at the later session as well.

MEMBERS AND INVITED GUESTS OF THE COUNCIL FOR THE FIFTH PHILADELPHIA MEETING, WITH NOTES

AS TO THEIR STATUS AND RECORDS

OF THEIR ATTENDANCE

Aitken, Robert G., Vice-President for Section D.

- Alexander, William H., Rep. Ohio Acad. 1, 2, 3, 4, 5 Science.
 - Anderson, John E., Rep. Amer. Psychol. Assoc.
 - 1 Archibald, R. C., Secretary of Section A.
- 1 Ashley, G. H., Vice-President for Section E. 1,2,3,4,5 Bailey, L. H., President of the Association. Baker, O. E., Rep. Assoc. Amer. Geographers. Bakké, A. L., Rep. Honor Soc. Phi Kappa Phi
 - Ball, C. R., Rep. Honor Soc. Phi Kappa Phi.

 - Barr, A. S., Secretary of Section Q.
 Battle, H. B., Rep. Amer. Oil Chemists' Soc.
 Bean, R. Bennett, Vice-President for Section H and Rep. Virginia Acad. Science.
 1, 2, 4, 5 Bergey, David H., Rep. Soc. Amer. Bacteri-colorists ologists.
 - Berkey, Charles P., Rep. Geol. Soc. Amer. (Fred. E. Wright, substitute for the Philadelphia meeting.)

Boggs, G. H., Rep. Georgia Acad. Science. Boring, Edwin G., Rep. Amer. Psychol. Assoc

Bowie, William, Rep. Amer. Soc. Civil Engineers.

Bowman, Isaiah, Rep. Amer. Geographical Soc.

- 1, 2, 3, 4, 5 Brasch, Frederick E., Secretary of Section L. 1,4 Breed, Robert S., Rep. Soc. Amer. Bacteri
 - ologists. Britton, W. E., Rep. Amer. Assoc. Econ.
 - Entomol.
 - 3,4,5 Brown, P. E., Secretary of Section O. Buchner, E. F., Rep. National Soc. College Teachers of Education.
 - 2 Cady, H. P., Rep. History Science Soc. (Substitute for F. B. Dains.)
 - Cairns, W. D., Rep. Math. Assoc. Amer. (C. H. Yeaton, substitute for the Philadelphia meeting.)
 - Cajori, Florian, Rep. History Science Soc. 1, 2, 4, 5 Caldwell, Otis W., Rep. National Education
 - Assoc. Calver, Homer N., Rep. Amer. Public Health Assoc.

- 3,4 Calvert, P. P., Rep. Entomol. Soc. Amer. Campbell, W. W., Past President (1915). Case, E. C., Rep. Michigan Acad. Science.
 2,4,5 Cattell, J. McKeen, Exec. Comm. Member
- 1.2.4.5and Past President (1924).
 - Chamberlin, T. C., Past President (1908). Chance, H. M., Rep. Amer. Inst. Mining and Metállurgical Engineers.
 - Clinton, G. P., Rep. Amer. Phytopathol. Soc. 1, 3, 4
 - Cole, Leon J., Rep. Amer. Genetic Assoc. Cole, Rufus I., Vice-President for Section N. Compton, K. T., Rep. Optical Soc. Amer. 1, 2, 3 Coulter, John Merle, Rep. Amer. Assoc. Univ. Professors and Past President (1918).
 - Courtis, Stuart L., Rep. National Soc. Study 3 of Education.
 - Crittenden, E. C., Rep. Illuminating Engineering Soc.
- 1, 2, 3, 4, 5
- Crocker, William, Rep. Bot. Soc. Amer. Cunningham, Bert, Rep. North Carolina 1, 2, 3, 4 Acad. Science.
 - 1,3 Curtis, Winterton C., Vice-President for Section F.
 - Dains, F. B., Rep. History Science Soc. (H. P. Cady, substitute for Philadelphia meeting.)
 - 1, 3, 4 Dean, George A., Rep. Amer. Assoc. Econ. Entomol.
 - Dellinger, J. H., Rep. Inst. Radio Engineers. Dietrichson, Gerhard, Secretary of Section C.
 - 1, 2, 3, 4 Drushel, J. Andrew, Rep. Amer. Nature-Study Soc. Duane, William, Vice-President for Section B.
 - Dublin, L. I., Rep. Amer. Public Health Assoc.
 - Duggar, B. M., Vice-President for Section G 3,4 and Rep. Amer. Soc. Naturalists.
- 1, 2, 3, 4, 5 Eichelberger, W. S., Rep. Amer. Astronom. Soc.
 - Eiesland, John A., Rep. West Virginia Acad. 1.2.3Science. Ellery, Edward, Rep. Sigma Xi.
 - 1, 2, 3, 4Enders, Howard E., Rep. Indiana Acad. Science.
 - 1, 4, 5 Estabrook, Arthur H., Rep. Eugenics Res. Assoc.
 - Fairchild, H. L., Elected Member and Exec. Comm. Member.
 - 1, 2, 3, 4 Fenneman, Nevin M., Rep. Assoc. Amer. Geographers.
 - Flagg, A. L., President of the Southwestern Division.

 - 1, 2, 4
- Flexner, Simon, Past President (1919). Focke, T. M., Rep. Math. Assoc. Amer. Fox, Philip, Secretary of Section D and Rep. 1, 2, 3, 4, 5 Astronom. Soc. Pacific.
- Freeman, Frank N., Secretary of Section I. Garber, R. J., Rep. Amer. Soc. Agron. Gardner, Wright A., Rep. Alabama Acad. 1, 2, 3, 4, 5
 - Science.
 - Gerould, John H., *Rep. New Hampshire* Acad. Science. (Gordon F. Hull, substitute for the Philadelphia meeting.
 - Gibbs, George, Rep. Amer. Soc. Civil Engi-4 neers.
 - Gibson, Arthur, Rep. Canadian Soc. Tech. 1 Agriculturists.
 - 1, 2 Goldforb, A. J., Secretary of Section N.
 - Haggerty, Melvin E., Vice-President for Sec-3,4 tion Q.
 - Hall, M. C., Rep. Amer. Soc. Parasitologists. (É. E. Tyzzer, substitute for the Philadelphia meeting.)
 - Hallowell, A. I., Rep. Amer. Anthropol. Assoc.

- 2, 3, 4, 5 Hancock, Harris, Rep. Amer. Assoc. Univ. Professors.
- Hargitt, Geo. T., Secretary of Section F. Heck, N. H., Secretary of Section M. 1, 2, 3, 4
 - 1, 2, 4 Hedrick, William A., Rep. Amer. Fed. Teachers of Math. and Nat. Sciences.
 - Hegner, R. W., Rep. Amer. Soc. Naturalists. Hibbard, R. P., Rep. Amer. Soc. Plant Physi-2.4ologists.
 - Hoffman, F. L., Secretary of Section K. 1 Hollis, Ira N., Rep. Amer. Soc. Mech. Engineers.
- 1, 2, 3, 4 Howard, L. O., Elected Member and Past President (1920).
- 2 Hughes, A. L., Secretary of Section B. 1, 2, 3, 4 Hull, Gordon F., Rep. New Hampshire Acad. Science. (Substitute for \mathbf{John} H. Gerould.)

Humphreys, Alex. C., Rep. Amer. Soc. Mech. Engineers.

- 1, 2, 3, 4, 5 Humphreys, W. J., General Secretary of the Association and Rep. Amer. Meteorol. Soc. Huntington, Edward V., Vice-President for 3 Section A.

 - 1, 2, 3, 5
- Illick, J. S., Rep. Soc. Amer. Foresters.
 Ingraham, M. H., Rep. Amer. Math. Soc. (Substitute for R. G. D. Richardson.)
 Jackson, Hartley H. T., Rep. Amer. Soc. 1, 3, 4Mammalogists.
 - Johannsen, O. A., Rep. Entomol. Soc. Amer. Jones, Arthur J., Rep. National Soc. College 2, 3, 4 Teachers of Education.
 - 1,4 Jones, Lauder W., Vice-President for Section C.
 - Jordan, David Starr, Past President (1909). 1, 3, 4Juday, Chancey, Rep. Wisconsin Acad.

Sciences.

Kellogg, Vernon, Exec. Comm. Member. Knipp, Charles T., Rep. Illinois Acad. Science.

- 1 Kober, George M., Rep. Amer. Medical Assoc.
- 1, 2, 4 Koch, Julius A., Rep. Amer. Pharmaceutical Assoc.
 - 3, 4
- La Rue, G. R., Rep. Amer. Microscopical Soc. Laughlin, H. H., Rep. Eugenics Res. Assoc. Lawson, Andrew C., Rep. Geol. Soc. Amer. 1, 2
- Leighty, C. E., Rep. Amer. Genetic Assoc. 1, 2, 3, 4
- 1 Lidbury, F. A., Rep. Amer. Electrochem. Soc.
- 1, 2, 3, 4, 5 Livingston, Burton E., Permanent Secretary of the Association.
 - 1, 3, 4 Loomis, F. B., Rep. Paleontological Soc. Amer.
- 1, 2, 3, 4, 5 Love, H. H., Rep. Amer. Soc. Agron. 1 MacDougal, D. T., Elected Member. 1, 2 Macelwane, James B., Rep. Seismol. Soc. Amer.
 - Mansfield, G. R., Secretary of Section E. 3,4
 - 1, 4Marbut, C. F., Vice-President for Section O.
- Mason, J. Alden, Rep. Linguistic Soc. Amer. McGill, John T., Rep. Tennessee Acad. 1, 2, 3, 4, 5 1, 2, 3, 4, 5
 - Science.
 - 1, 2, 3, 4 McHatton, T. H., Rep. Amer. Soc. Horticultural Science. McMurrich, J. Playfair, Rep. Amer. Assoc. Anatomists and Past President (1922). Merriam, John C., Elected Member.
 - Metcalf, M. M., Rep. Amer. Soc. Zoologists. Michelson, A. A., Past President (1910). 1,3
 - Middleton, Austin R., Rep. Kentucky Acad. (Substitute for A. M. Peter.) 1, 2, 4
 - Miller, Dayton C., Rep. Amer. Physical Soc. Miller, G. A., Elected Member. 1 Miller, W. Lash, Rep. Amer. Electrochem. Soc.

- 1 Mitchell, H. H., Rep. Amer. Math. Soc.
- Moore, E. H., Past President (1921). Morehouse, D. W., Rep. Iowa Acad. Science. Moseley, H. W., Rep. New Orleans Acad. 4.5Sciences.
- Moulton, F. R., Exec. Comm. Member and Rep. Sigma Xi. 1, 2
- 1, 2, 3
- Nabours, B. K., Rep. Kansas Acad. Science. Neal, H. V., Rep. Amer. Soc. Zoologists. 2, 3, 4 Nicholas, Francis C., Rep. Maryland Acad. Sciences. Nichols, E. L., Past President (1907). Norris, James F., Rep. Amer. Chem. Soc. Noyes, A. A., President of the Pacific
 - Division.

 - Noyes, W. A., Exec. Comm. Member. Oldfather, W. A., Elected Member. Parsons, Charles L., Rep. Amer. Chem. Soc.
 - Pearse, A. S., *Rep. Ecol. Soc. Amer.* Peltier, G. L., *Rep. Nebraska Acad. Science.* (Paul B. Sears, substitute for Philadelphia meeting.)
 - Peter, A. M., Rep. Kentucky Acad. Science. (Austin R. Middleton substitute for the Philadelphia meeting.)
 - 2
 - Piersol, George M., Rep. Amer. Med. Assoc. Pupin, M. I., Exec. Comm. Member, Rep. Inst. Electrical Engineers, and Past Presi-4 dent (1925).
- Reddick, Donald, Rep. Amer. Phytopath. Soc. Remsen, Ira, Past President (1902). 1, 2, 3, 4
 - 5 Reynolds, E. S., Rep. North Dakota Academy of Science.
- Richards, A., Rep. Oklahoma Acad. Science. Richards, C. R., Vice-President for Sec-tion M. 1, 2, 3, 4, 5

Richards, Theodore W., Past President (1917).

- Richardson, R. G. D., Rep. Amer. Math. Soc. (M. H. Ingraham substitute for the Philadelphia meeting.)
- Richtmyer, F. K., Rep. Optical Soc. Amer. Rufus, W. Carl, Vice-President for Section L. Sapir, E., Rep. Amer. Anthropol. Assoc.
- 1 Sauveur, Albert, Rep. Amer. Inst. Mining and Metallurgical Engineers.
- Schramm, J. R., Rep. Bot. Soc. Amer. Schroeder, E. C., Rep. Amer. Veterinary Med. 3, 42
 - Assoc. Sears, Paul B., Rep. Nebraska Acad. Sci. (Substitute for G. L. Peltier.) Senior, H. D., Rep. Amer. Assoc. Anatomists. Sharp, Clayton H., Rep. Illuminating Engi-
- neering Soc. Slocum, Frederick, Rep. Amer. Astronom. 2, 3, 4, 5Soc.
 - 2, 3, 4
- Stewart, G. W., Elected Member. Stone, Witmer, Rep. Amer. Soc. Mammalogists.
 - Studebaker, J. W., Rep. National Education Assoc.
 - Taylor, John B., Rep. Amer. Inst. Electrical 1, 2Engineers.
 - Terry, R. J., Secretary of Section H. 3 Tillotson, E. Ward, Rep. Amer. Ceramic Soc. Townley, S. D., Rep. Seismol. Soc. Amer. Trelease, Sam F., Secretary of Section G.
- 1, 2, 3, 4, 5
- 1, 2, 3, 4, 5
 - True, Rodney H., Elected Member. Tyzzer, E. E., Rep. Amer. Soc. Parasitolo-2,3
 - gists. (Substitute for M. C. Hall.) Van Cleave, H. J., Rep. Amer. Microscopical 1, 3, 4 Soc.
 - Van Horn, Frank R., Rep. Mineralogical Soc. Amer.
 - Walcott, Charles D., Past President (1923).
- Ward, Henry B., Exec. Comm. Member. 1, 2, 3, 4, 5

SCIENCE

Warwick, C. L., Rep. Amer. Soc. Testing Materials.

- 2 Washburn, Margaret Floy, Vice-President for Section I.
 - Weaver, J. E., Rep. Ecol. Soc. Amer.
- Webb, Harold W., Rep. Amer. Physical Soc. 1 Welch, William H., Past President (1906). 1, 2, 4 Whipple, Guy M., Rep. National Soc. Study
 - of Education. White, David, Rep. Paleontological Soc.
 - Amer. Willits, Joseph H., Vice-President for Section K.
 - Wilson, Edmund B., Past President (1913). 3 Wilson, Edwin B., Exec. Comm. Member.
 - Wirt, John L., Treasurer of the Association. 1,2 Wright, Fred. E., Rep. Geol. Soc. Amer. (Substitute for Charles P. Berkey.)
- 1, 2, 3, 4 Yeaton, C. H., *Rep. Math. Assoc. Amer.* (Substitute for W. D. Cairns.)

THE ROLL OF THE EXECUTIVE COMMIT-TEE AT PHILADELPHIA

The executive committee held sessions on Monday, Tuesday, Wednesday and Thursday mornings. The first session was in the Bellevue-Stratford Hotel, while the others were in the council room in Bennett Hall, the University of Pennsylvania. Following is the roll of the committee. The numbers preceding each name indicate the sessions at which the member was present, as in the case of the council roll above. The number in parenthesis after each name denotes the calendar vear at the end of which the member's term of office was to expire. Drs. Cattell and Ward automatically retired from the committee at the end of this Philadelphia meeting. They were reelected to succeed themselves.

- 1, 2, 3, 4 J. McK. Cattell (1926), chairman, Garrison-on-Hudson, N. Y.
- 1, 2, 3, 4 L. H. Bailey (1926), president of the association, Ithaca, N. Y
 - W. J. Humphreys (1928), general secretary of the association, Washington, D. C. 1, 2, 3
- 1, 2, 3, 4 Burton E. Livingston (1928), permanent sec-retary of the association, Baltimore, Md., and Washington, D. C.
 - Herman L. Fairchild (1927), Rochester, N. Y. Vernon Kellogg (1928), Washington, D. C. F. R. Moulton (1929), Chicago, Ill. W. A. Noyes (1927), Urbana, Ill. 2, 3

 - 1, 3, 4
- Michael I. Pupin (1929), New York City. Henry B. Ward (1926), Urbana, Ill. Edwin B. Wilson (1928), Boston, Mass. 1, 2, 3, 4
 - 3

LEGISLATIVE AND EXECUTIVE PROCEED-**INGS AT PHILADELPHIA**

The executive committee of the council met in the Bellevue-Stratford Hotel on Monday morning, December 27, and held a session in the council room at the University of Pennsylvania following the council meeting on each of the three succeeding days. The council met in the council room on the afternoon of Monday and at 9 on Tuesday, Wednesday, Thursday and Friday. No business was transacted at any of the general sessions of the Philadelphia meeting. The following paragraphs summarize the Philadelphia business proceedings:

(1) The council minutes of January 1 and of December 27, 28, 29 and 30, 1926, were approved.

(2) The audited report of the treasurer for September 30, 1926, was accepted by the council and ordered to be printed in SCIENCE in the usual manner.

(3) The audited financial report of the permanent secretary for September 30, 1926, was accepted and ordered to be printed in SCIENCE.

(4) The report of the secretary-treasurer of the Pacific Division was presented to the council and was ordered to be printed in SCIENCE as usual.

(5) The treasurer, with the advice of the finance committee, was specially empowered by the council to dispose of any securities belonging to the association, for the purpose of reinvestment.

(6) A treasurer's reserve fund was established by the council, to amount generally to about \$2,500, and it was voted that unexpended balances of appropriable funds in the hands of the treasurer be added to the reserve fund at the end of each fiscal year. The reserve fund is to be temporarily invested or held in the savings bank, and interest received from it is to be added to the fund itself.

(7) The following appropriations from the treasurer's available funds were made by the council:

- \$3,000 for allotment by the Committee on Grants.
- 500 to the Naples Zoological Station.
- \$ 200 to the Annual tables of Physical and Chemical Constants.
- \$1,000 for the operations of the Committee of One Hundred on Scientific Research.

(8) The following three members were elected to emeritus life membership according to the provisions of the will of the late Jane M. Smith:

Monroe B. Snyder, member since 1875 and fellow since 1882.

- Ormond Stone, member since 1875 and fellow since 1876.
- George E. Blackham, member since 1876 and fellow since 1883.

(9) Two hundred and thirty-eight fellows of the association were elected by the council, on nominations previously approved by the sections in the regular way. These are distributed among the sections as follows:

Section A, 3	Section F, 3
Section B, 28	Section G, 45
Section C, 2	Section L, 1
Section D, 3	Section N, 123
Section E, 28	Section O, 2

(10) With the approval of the editor of SCIENCE and The Scientific Monthly the council voted that any member of the association may receive either of these journals, in addition to the one received on account of his membership, on payment of three dollars. That is, any person may have membership and both journals by paying