## BULLETIN

### OF THE

# AMERICAN MATHEMATICAL SOCIETY

EDITED BY

EARLE R. HEDRICK DAVID R. CURTISS WILLIAM R. LONGLEY

WITH THE ASSISTANCE OF

HAROLD T. DAVIS THEOPHIL H. HILDEBRANDT JOHN R. KLINE HARRY W. KUHN DERRICK N. LEHMER HENRY L. RIETZ

VOLUME XLI, NUMBER 11

NOVEMBER, 1935

PUBLISHED BY THE SOCIETY MENASHA, WIS., AND NEW YORK 1935

Whole No. 434

\$9.00 a Year

#### PUBLISHED MONTHLY

Entered as second class matter April 24, 1926 at the post office at Menasha, Wis., under the act of August 24, 1912. Acceptance for mailing at the special rate of postage provided for in the act of February 28, 1925, embodied in paragraph 4, section 538, P. L. and R., authorized May 9, 1935.

### AMERICAN MATHEMATICAL SOCIETY

- Mail Address: Low Memorial Library, Columbia University, New York, N. Y., for the Secretary, Treasurer, Librarian, and Clerk.
- Office: Room 306, Low Memorial Library, Columbia University, New York City.
  - President: Professor S. Lefschetz, Princeton University, Princeton, N.J.
  - Secretary: Dean R. G. D. Richardson, Brown University, Providence, R.I.
  - Associate Secretaries: Professor M. H. Ingraham, University of Wisconsin, Madison, Wis.; Professor J. R. Kline, University of Pennsylvania, Philadelphia, Pa.; Dean T. M. Putnam, University of California, Berkeley, Calif.
  - Treasurer: Professor G. W. Mullins, Barnard College in Columbia University, New York City.
  - Librarian: Professor R. C. Archibald, Brown University, Providence, R.I.
  - Clerk: Miss Evelyn M. Hull, Low Memorial Library, Columbia University, New York City.
  - Editor-in-Chief of the Bulletin: Professor E. R. Hedrick, University of California at Los Angeles, Los Angeles, Calif.
  - Managing Editor of the Transactions: Professor R. D. Carmichael, University of Illinois, Urbana, Ill.
  - Chairman Colloquium Editorial Committee: Professor Oswald Veblen, The Institute for Advanced Study, Princeton, N.J.
  - Managing Editor of the American Journal of Mathematics: Professor Abraham Cohen, Johns Hopkins University, Baltimore, Md.
  - Representatives of the Society in the Division of Physical Sciences of the National Research Council: Professor Marston Morse, Dean R. G. D. Richardson, and Professor J. H. Van Vleck.
  - Representatives on the Council of the American Association for the Advancement of Science: Professors M. H. Ingraham and C. N. Moore.
  - Chairman, Committee on Arrangements for the Semi-Centennial: Professor T. S. Fiske, Columbia University, New York City.