in the Massachusetts Institute of Technology; Mr. F. E. Knowles as instructor in mathematics in the University of Oklahoma; Mr. W. O. Beal as instructor in mathematics in Illinois College; Mr. O. S. Stetson as instructor in mathematics in Syracuse University; Mr. J. W. Brister as associate professor of mathematics in the University of Nashville; Mr. M. A. Mackenzie, of Trinity College, Toronto, as associate professor of mathematics in the University of Toronto.

The following catalogues of second-hand mathematical works have recently been issued: B. Quaritch, 15 Piccadilly, London, catalogue No. 225, 114 numbers, mostly very rare works; Theodor Ackermann, Promenadenplatz 10, Munich, catalogue 175a, 2 pages; J. Halle, Ottostrasse 3a, Munich, catalogue 33, 317 works on mathematics, mostly rare early editions, also 443 works on applied mathematics; Anton Creutzer, Aachen, catalogue 82, mathematics and astronomy; F. L. Dames, Landgrafenstrasse 12, Berlin W., catalogue 81, mathematics and physics; Max Weg, Leplaystrasse 1, Leipsic, catalogue 91, 1581 numbers, including works in applied mathematics and 129 portraits.

MARCUS BAKER, cartographer of the U. S. Geological Survey and assistant secretary of the Carnegie Institution, died at Washington, December 12. Mr. Baker had been a member of the American Mathematical Society since 1891.

## . NEW PUBLICATIONS.

## I. HIGHER MATHEMATICS.

- Ball (R. S.). On the reflection of screw-systems and allied questions.

  Dublin, 1903. 4to. (Transactions of the Royal Irish Academy,
  Vol. 32, section A, part 6, pp. 101-154.)

  1s. 6d.
- BLICHFELDT (H. F.). On the order of linear homogeneous groups. (Transactions of the American Mathematical Society, Vol. 4, pp. 387-397.)
- Boole (M. E.). Lectures on the logic of arithmetic. Cambridge, Macmillan and Bowes, 1903. 8vo. Cloth. 2s.
- Bowden (J.). Elements of the theory of integers. New York, Macmillan, 1903. 12mo. 10 + 258 pp. Cloth. \$1.25
- Bugaiev (N. V.). Introduction to analysis and to the differential calculus. Moscow, 1902. 8vo. 204 pp., 1 plate. (Russian.)
- FIEDLER (W.). See SALMON (G.).