

At the University of Virginia, Professor W. H. ECHOLS succeeded Professor C. S. VENABLE, who resigned as head of the department of pure mathematics. Dr. J. M. PAGE has been since appointed adjunct professor of mathematics.

A VACANCY was caused in the department of mathematics at Wells College by the resignation of Miss S. A. ACER. It has been filled by the appointment of Miss ANNIE L. MAC-KINNON, Ph. D. (Cornell). Miss MacKinnon's dissertation, "Concomitant Binary Forms in Terms of the Roots," appeared in the *Annals of Mathematics* for July, 1895.

PROFESSOR E. D. ROE, JR., for the last five years associate professor of mathematics at Oberlin College, has resigned his position in order to spend the next two years in travel and study abroad.

NEW PUBLICATIONS.

I. HIGHER MATHEMATICS.

- BALL (W. W. R.). *Mathematical recreations and problems of past and present times.* 3d edition. London, Macmillan, 1896. 8vo. 288 pp. 7s.
- BIANCHI (L.). *Vorlesungen über Differenzialgeometrie.* Autorisierte deutsche Uebersetzung von M. Lukat. (In 2 Lieferungen.) Lieferung I. Leipzig, Teubner, 1896. 8vo. 4 and 336 pp. Mk. 12.00
- BINDER (W.). *Theorie der unikursalen Plankurven vierter bis dritter Ordnung in synthetischer Behandlung.* Leipzig, Teubner, 1896. 8vo. 11 and 396 pp. 2 plates. Mk. 12.00
- BREGGEN (J. VAN DER). *Integraalrekening.* Versameling van opgeloste Vraagstukken. Zutphen, 1896. 8vo. 4 and 160 pp. 1 plate. Mk. 3.50
- COHN (J.). *Geschichte des Unendlichkeitsproblems im abendländischen Denken bis Kant.* Leipzig, 1896. 8vo. 7 and 261 pp. Mk. 5.00
- DEDOFF (T.). *Untersuchungen über quadratische Formen.* [Diss.] Leipzig, Teubner, 1896. 4to. 40 pp. Mk. 2.80
- FISKE (T. S.). *The straight line as a minimum length.* (*Science*, new series, Vol. IV., 1896, p. 533.)
- GOUDIN (J. B.). *Considérations élémentaires ou notions sur le calcul infinitésimal et ses dérivés.* Paris, 1896. 8vo. Fr. 2.00
- HAGEN (J. G.). *Index operum Leonardi Euleri.* Berolini, Dames, 1896. 8vo. 8 and 80 pp. Mk. 2.00
- JACOBI (C. G. J.). *Ueber die Bildung und die Eigenschaften der Determinanten (De formatione et proprietatibus determinantium. 1841.)*