XIII. The statement of the principle of Gibbs and its bearing on the behavior of gaseous mixtures is treated with exceptional clearness, and the fundamental fact that the theory of such mixtures depends on only three laws (those of Mariotte, Joule, and Gibbs) is so emphasized that no reader can miss it or fail to see its significance.
E. B. Wilson.

## NOTES.

The opening (January) number of volume 29 of the American Journal of Mathematics contains the following papers: "The groups which contain less than fifteen operators of order two," by G. A. Miller ; "Concerning the improper definite integral," by N. J. Lennes; "On the congruence of axes in a bundle of linear line complexes," by O. P. Akers; "On septic scrolls having a rectilinear directrix," by C. H. Sisam. This number also contains a portrait of Professor David Hilbert, of the University of Göttingen.

The April number contains: "Beiträge zur nicht-euklidischen Geometrie, I, II, III," by E. Study ; "Certain triply orthogonal systems of surfaces," by L. P. Eisenhart.

The April number (volume 8, number 3) of the Annals of Mathematics contains: "Note on the use of group theory in elementary trigonometry," by G. A. Miller ; "The asymptotic lines on the anchor ring," by M. B. White ; "On certain theorems of mean value for analytic functions of a complex variable," by D. R. Curtiss; "Note on regular polygons," by C. A. Scott ; "The revolution of a dark particle about a luminous center," by E. B. Wilson.

At the meeting of the London mathematical society, held on March 14, the following papers were read: By G. W. EvansCross, "Exhibition of a new calculating mảchine"; by T. Stuart, "On the reduction of the factorization of binary septans and octans to the solution of indeterminate equations of the second degree"; by L. E. Dickson, "Invariants of the general quadratic form modulo 2 "; by J. Brill, "On partial differential equations of the first order."

