THE FIFTH INTERNATIONAL CONGRESS OF MATHEMATICIANS. SECTION I: ARITHMETIC, ALGEBRA, ANALYSIS.

PROFESSORS E. B. Elliott, E. Landau, É. Borel, E. H. Moore, and H. von Koch acted as chairmen. Following is the list of papers, with abstracts, so far as they have been furnished by the writers.

HARDY, G. H. and LITTLEWOOD, J. E.: " Some problems of Diophantine approximation."

DRACH, J.: " Sur l'intégration logique des équations différentielles."

MOORE, E. H.: " On the fundamental functional operation of a general theory of integral equations."
In this paper Professor Moore states the principal general theorems involving the functional operation J of the system Σ_5 of terms and postulates defined in his paper in the April, 1912, number of the BULLETIN. On the basis of these theorems one may, along the lines of Fredholm, Plemelj, Hilbert, E. Schmidt, Goursat, Landsberg and I. Schur, develop a general theory of linear integral equations which contains as instances current theories of the equations I, II_n, III, IV defined in the previous paper.

BERNSTEIN, S.: " Sur les recherches récentes relatives à la meilleure approximation des fonctions continues par des polynomes de degré donné."

SILBERSTEIN, L.: " Some applications of quaternions."
In the absence of Professor Silberstein this paper was read by title.

MACFARLANE, A.: " On vector analysis as generalized algebra."
The ordinary algebraic quantities may be taken as numbers or as vectors having a common direction. The corresponding elements of the generalized algebra are vectors