

MR. PAASWELL'S APPEAL TO PRODUCING
MATHEMATICIANS.

BY PROFESSOR C. N. HASKINS.

It is always a service to the scientific world to set before it a definite statement of some of its important unsolved problems. Such a service Mr. Paaswell has rendered,* in calling attention to certain outstanding mathematical problems of engineering. His thesis is, essentially, that the available mathematical analysis of these problems is, (a) exact, but impracticably complex; or, (b) practicably simple, but inexact; or, (c) non-existent, save for empirical formulas. He therefore urges producing mathematicians to turn their attention to bettering this state of affairs.

The question naturally arises, "Why does not the engineer himself supply the needed remedy?" Mr. Paaswell suggests several answers, viz.,

(1) The mathematical curricula of the schools of applied science are not sufficiently intensive or extensive.

(2) Modern mathematical treatises and dissertations are so written as to be incomprehensible to those not already familiar with the subject.†

(3) "Hardly any treatise has attempted to discuss or analyze the serious problems of the applied science professions."

Of these answers (3) is in effect merely a restatement of the thesis. The suggestion (1) deserves careful consideration. The required mathematical courses of the better schools of engineering represent very nearly the maximum, both in depth and extent, of what can be effectively assimilated and used by the average student in such schools. An increase of significant amount in these required courses would result either in depriving the engineering profession of many useful and successful members, or in lowering the general standard of attainment demanded in those courses. Unquestionably the student engineers of real mathematical aptitude would benefit by the suggested increase. On the other hand a large number of

* BULLETIN, vol. 21 (1914), p. 127.

† Mr. Paaswell also contends that "the tone of modern works is not that of disseminating new ideas, but rather that of clothing ideas already familiar to readers in slightly different form." This position seems hardly tenable. Witness, for example, the monographs of the Borel series.