machines to solve new problems. Other topics I would like to mention include determinants and matrices, vectors, and Fourier series and integrals.

In conclusion, Sir, may I wish the Mathematical Association all good luck in its efforts to improve the understanding of technical mathematics at all levels. Yours sincerely,

P. J. WALLIS.

AN OLD PROBLEM.

To the Editor of the *Mathematical Gazette*.

SIR,—I have been interested lately by the old unsolved problem of placing n points in m straight lines of p in a line, so that m is a maximum. I should be grateful if any members could inform me of the literature on the subject : I believe both Newton and Sylvester studied it.

It might interest some of your readers to try their hands at the following selection of possibilities, to each of which I have at least one solution. The numbers are the values of p, n, and m, in that order. 3, 11, 16 ; 3, 12, 19 ; 4, 18, 18 ; 4, 24, 28 ; 4, 25, 30 ; 4, 36, 55 ; 5, 22, 15 ; 5, 26, 21 ; 5, 30, 26.

The question originally proposed was to find n_0, the minimum value of n for which $m \geqslant n$ for any value of p. When $p = 3$, $n_0 = 9$, and when $p = 4$, $n_0 = 18$, so it is tempting to guess that when $p = 5$, $n_0 = 36$ and, in general, $n_0 = 9 \cdot 2^{p-3}$, but I have not so far found such a solution even for $p = 5$.

Yours,   R. H. MACMILLAN.

SIXTH FORM SYLLABUSES

To the Editor of the *Mathematical Gazette*.

SIR,—There is temerity in commenting at a distance on the discussion about Sixth Form syllabuses recorded in the *Mathematical Gazette* for October, especially as the clearly valuable report on the training of physicists is not available here, nor are the Cambridge Entrance Scholarship papers which are so highly praised. But our experience for a score of years with Descriptive Mathematics appears to be relevant, and some attempt may be made to state its significance for the changing situation in England.

The discussion concerned two subjects which are well and clearly distinguished, the mathematical preparation best for various future courses of study, and that for winning scholarships with a view to the study of mathematics. Only to the former can I refer, though I note no reference to the consequences of concentration on scholarship work for those who fail to get a scholarship, and though I gather from the constitution of the Joint Advisory Committee the impression that University representation is rather strong. About this I feel that teachers should have clearer views as to aims in teaching which are not too directly linked to the study of advanced mathematics ; University teachers can keep in touch with such aims, and help to determine them, but for this they need not have great voting strength on committees.

First, I note too little emphasis, notwithstanding the prominence given to Statistics and the mention of actuarial mathematics, on the uses of mathematics in connection with the social sciences. Not forgetting Marshall's warnings, it may be said that these uses are specially urgent now in regard to Economics. (An example of fumbling may be easily seen at p. 285 of *Employment, Interest and Money*.*) We need a committee or group of

* More positively, there is the apparent fact that *Econometrica* flourishes in the U.S.A., and it is doubtful if it is appreciated as generally in England.