Note 2. Some of the alternative formulae to Fig. 21 have strange coincidences which might be worth investigating. My attention was drawn to them by seeing *HAG* written on the top of the left, bottom of the right and again in the dead centre—investigation showed that there were 18 such repetitions, vertically and horizontally, but no other quite so calculated to catch ones eye !

In conclusion, I must thank Miss E. M. Renwick for her helpful and encouraging correspondence and to Dr. G. A. Garreau for his very very great help in getting my notes into order for printing.

[*Note*. Since writing the above, I discovered that some of these ninth order squares are far more wonderful than I ever realised ! If one chooses the variables so that the centre is 41, then one gets a *much* smaller number (96 I think) of *much* more interesting squares of which Fig. 19 is a sample. Here any two numbers placed diagonally opposite and equidistant from the centre add up to 82. In addition *any* 3 by 3 square adds up to 369 and *not* just the ones I made to do so. Even more unexpected, I found that any 3 by 3 square with what might be described as single square spacing, or with double square spacing etc., . . . in fact I think that there are at least 288 ways of getting 369 without deliberately making use of the pairs that add up to 82 : this includes cases such as 3 by 3 squares with three square spacing, of which only one does not, as it were, go off one edge and re-appear on the other side ; the one normal case being that of four corners, four mid-points of sides and centre of square.]

C. Dudley Langford.

CORRESPONDENCE

To the Editor of the *Mathematical Gazette*.

Dear Sir,—Readers will probably be interested to hear that the design in Note 2530 is illustrated on page 101 (Fig. 124) of *New Mathematical Pastimes*, by Major P. A. Macmahon (Camb. Univ. Press, 1921). The author goes on to show how the design can be made the basis of many other pavement types of pattern. The equal-sided pentagon that will fit in this way can, I think, be most easily drawn thus. Construct a right-angled isosceles triangle CRQ, right-angled at C. On RQ construct a triangle RQP having $QP=QR$ and $RP=CR=CQ$. On QP draw a right-angled isosceles triangle QPA having a right angle at A. Then of necessity $QA=AP=RP=CR=CQ$. This uses the figure on p. 104 (Fig. 127) of Major MacMahon's book, but not his method. It seems to me surprising that no firm has ever made coloured glazed tiles of this shape since they are so " versatile " : maybe they would need more than the average labourer to lay them successfully!

Yours etc., C. Dudley Langford.

THE HISTORICAL ASSOCIATION, 1906–1956

The jubilee of the Historical Association has been marked by the publication of a pamphlet (56 pp., 2s. 6d., George Philip & Son, Ltd.) describing the origin and development of that Association. Its organisation, with meetings in and out of London, vigorous local Branches, journal and reports, suggests a parallel with our Association ; its membership, some 8000, an example to be imitated.