

Some teachers withdraw models as soon as possible so that the student can be trained to read from drawings rather than models.

The book is attractively produced, contains 213 pages and 430 well-drawn figures. With such a large number of drawings, the author has evidently been obliged to concentrate on good ones, so that the wealth of descriptive material necessary can be cut down to a minimum in order to save space. On the whole he has done the job well, but the private student may find it hard going to understand all the figures from the sometimes somewhat perforce sketchy descriptions, for example in Figs. 129–131 and Fig. 324.

Chapters I, II, IV, V and VIII could be taken together, followed by Chapters III, VI and VII. Chapter X starts off with a difficult example. The photographs on page 124 are rather small, but those on pages 174A to 174D are particularly good.

The ellipse, it is stated, is most frequently used by craftsmen in the building trades. The parabola comes next in importance, and there is one application of the hyperbola in Chapter XIV.

The author warns the reader that his treatment will differ considerably from that to be expected in a book on deductive geometry, and he has concentrated on good draughtsmanship which, he maintains, can be an object of supreme beauty to anyone educated to appreciate its value. There is a wealth of experience in this low-priced book.

Altogether this is a fascinating book, and one to be recommended to teachers of geometry and building geometry. A.

CORRESPONDENCE.

PROJECTIVE GEOMETRY.

To the Editor of the *Mathematical Gazette*.

SIR,—I am grateful to Dr. E. A. Maxwell for having drawn attention to my letter which you published on p. 303 of the *Math. Gazette*, to a point at which I might have dealt more thoroughly in my article on pp. 122, *et seq.* Vol. XXX. I do not think, though, that any logical slip has been made.

The argument concerns a conic which is defined by five points, viz. the four points of the base of a pencil of conics and the two double points of the involution created by the pencil on a straight line l . Now this conic degenerates into a line l which connects two (appropriately chosen) diagonal points of the complete quadrangle of the base. In that case the four points of my theorem reduce to a well-known harmonic range on the diagonal of a complete quadrangle. I do not know of any reason why this special case of a general theorem should not be considered as legitimately implied, although simpler proofs may well be available. The present case merely requires that an equality of cross-ratios should be deemed to hold when both are zero. It seems a moot point whether such a situation can be called a breakdown, but it is in any case a breakdown of a peculiar sort, in that it leads always to correct results.

I am, Sir, Yours faithfully, S. VAJLI