relative sizes are preservable, that is, that similar figures exist*. This is an assumption we are all ready to make, for the adequate reason that we are acting on it throughout our daily lives, but the fact that we find it satisfactory locally, or in other words that we are small in the world, does not imply that geometry without it is logically impossible, while the fact that it is equivalent to the axiom of parallels was pointed out by Wallis long ago.

There is no fear that axioms as bizarre as Dodgson's will ever be adopted seriously, and the teacher who has understood that an element of postulation is necessary even in regard to the existence of congruent figures is not likely to give a higher status to the existence of similar figures. The really dangerous theory of parallels is the direction theory, exposed brilliantly and wittily by Dodgson himself, refuted again and again, but continually revived by the " practical " teacher , in this theory the fundamental assumption is always hidden instead of being displayed. The fallacies are so various in form that I cannot attempt to deal with them, and I will conclude by saying quite seriously that any teacher who has followed a few such arguments on this subject as are in the M.A. Report, and is nevertheless unable to discover for himself the fallacy in any theory of parallels which claims to dispense with an assumption equivalent to Euclid's, had better leave to a colleague the difficult beginnings of geometry ; he will be a better and a more inspiring teacher of mathematics if he gives up the attempt to exercise a faculty which he does not possess, and which is, as I said an hour ago, utterly distinct from the power to handle geometrical material.

E. H. N

CORRESPONDENCE.

Dec. 13*th*, 1933.

To the Editor of the *Mathematical Gazette.*

DEAR SIR,—With regard to the erroneous article in my *Coordinate Geometry*, noticed by " A. R." in his recent review in your columns, I should be greatly obliged if you would let your readers know that the error was found almost immediately on publication, and that a correct version was printed off on two pages, 95, 96, of which I have several copies. The erroneous article only appears in the review copies and the first fifty or so that were sold.

If anyone possesses one of these copies, in which an *inequality* forms the last line of page 95 instead of the equations,

$$x'/a' = y'/b' = -c'/(a'^2 + b'^2),$$

I shall be only too pleased to send them a copy of this pair of pages, so that they can cut out the erroneous page, leaving a tab formed by the inner white margin, to which the new sheet can be pasted.

Yours very faithfully,

J. M. CHILD.

* This too was said to Dodgson, who missed the point childishly, and protested that as he had nowhere equated the angles of different tetragons, the question of whether tetragons of different sizes are similar was irrelevant. But his figure consists not of a tetragon alone, but of tetragon and circle. The question is : Why is his axiom plausible ? And the answer : Because it is true for figures sufficiently small.