IX.—NOTES AND NEWS.

CERTAINTIES, IMPOSSIBILITIES AND VARIABLES.

The misleading statement of his position (unconsciously misleading, of course) by Mr. MacColl in the postscript to his article in the Oct. number of *MIND* ought not, I think, to pass without notice. In the first place he leads his readers to suppose that if he can make good his position on the question of 'impossibilities' he will have refuted the whole of my criticism. Secondly, by drawing attention to the word 'impossibility' rather than the word 'certainty' he makes the case against him much less clear than it really is. And, thirdly, in confining himself to this word, he quotes a sentence from me, which, though explicitly given by me as a rendering of his 'impossibilities,' he presents to the reader as having reference to events which are at the present time impossible.

Now there are two other very important points in which I disagree with Mr. MacColl, and he ought to have said so. One of these has reference to the Universe of Discourse, in his account of which I maintain he is involved in self-contradiction. Here Mr. Russell and I are, I believe, in complete agreement that Mr. MacColl has failed to distinguish between philosophical and logical existence. This question of existence is of fundamental importance.

As regards 'impossibilities,' which Mr. MacColl denotes by η , and 'certainties,' which he denotes by ϵ , he accuses me of mixing up logic and psychology. The matter amounts to this: when Mr. MacColl says 'it is certain that x is y ,' he holds that there is here no reference to any thinker. I hold that there is such a reference. To say that a proposition is certain means that *all persons are so constituted that they must believe that the proposition is true.*

And, thirdly, Mr. MacColl reads the sentence which he quotes from me as though it referred to events which are at the present time impossible, while it explicitly refers to what he means by the term 'impossible'. It is well to dwell upon his criticism here, because it shows what an illusion he is under as to the value of his classification of propositions. On page 496 of *MIND*, N.S., No. 24 he says: "We have often to consider not merely whether a statement is *true* or *false*, but whether it is a *certainty*, like $2 + 3 = 5$; an *impossibility*, like $2 + 3 = 8$; or a *variable* (neither always true nor always false), like $x = 4$ ". Now $2 + 3 = 8$ is not an impossibility of the kind that "old women ride through the air on broomsticks" is: the former is a proposition whose truth is inconceivable, while the latter is merely a statement of something which, so far as we know, is physically impossible. Hence I hold that $2 + 3 = 8$ may be rendered "a person is so constituted that he cannot believe that $2 + 3 = 8$," or "a person who believes that $2 + 3 = 8$ does not exist". I do *not* hold that the statement of the physical

impossibility can be rendered "a person who believes that old women ride through the air on broomsticks does not exist". Mr. MacColl should have kept to his own use of the word 'impossibility,' and then he would perhaps have seen that my rendering of it is adequate, and thus that his 'impossibilities' can be brought within the scope of the ordinary Symbolic Logic.

By way of bringing this question to a final settlement, we may take Mr. MacColl's statement about figure 3 on page 507 of the same article. Here he says "neither α nor β can possibly be true . . . so that we have $\alpha\beta$," i.e., α is an 'impossibility'. In other words his 'impossibility' is "what cannot possibly be true," and this refers to such statements as $2 + 3 = 8$, and not to statements about old women and their methods of locomotion.

A. T. SHEARMAN.

MIND ASSOCIATION.

THE Annual General Meeting will be held in Balliol College, Oxford, on Saturday, 1st June, at 5 P.M.

The following gentlemen have joined the MIND Association since the printing of the last number :—

Moberly (W. H.), Lincoln College, Oxford.

Osgood (G. L.), Rue Bellot, Geneva, Switzerland.

Waterton (S. P.), 17 Wilmslow Road, Withington, Manchester.