

THE METRIC FALLACY.

TO THE EDITOR OF SCIENCE: Evidently Mr. Samuel S. Dale, in the issue of SCIENCE of March 3, 1905, under the above title, failed to recognize his own mathematical proof of the amount of saving in time that might accrue in school with the use of the decimal system.

His error probably arose through the use of an artificial week by the board of education merely for their own convenience in assigning the proportion of time in school for each study. The time a child actually spends in school is a small part of the year and it would be a confusion of units to compare this schedule week with a regular week because the same word is used.

The only way a comparison can rightly be made is to take Mr. Dale's statement of what the schedule week is in years—that is, for elementary mathematics thirty-four and one eighth schedule weeks require eight years' work. On this basis 6.825 schedule weeks will require one and three fifth years' work in mathematics.

It is, however, not necessary to introduce this schedule week. The pupil actually spends eight years, according to Mr. Dale, on the text-books mentioned. As arithmetic during all this time is a major study, it is taught to the full capacity of the average child. Now if twenty per cent. of this time, as is allowed by Mr. Dale, is spent on tables of weights and measures, evidently these will require all the time available for mathematics during 1.6 years.

It is probable that a child could easily learn the decimal system in less than half the time it takes to learn both the decimal system and the several other unconnected tables. Accepting Mr. Dale's own figures, it seems, therefore, reasonable to suppose that the average pupil would save from two thirds of a year to one year of the one and three fifth years, now required, and would be about a year ahead in mathematics at the end of the eight years if he had only the decimal system to learn.

I do not desire to enter upon any discussion as to the merits of the metric system, but simply to point out the mathematical error in Mr. Dale's reasoning and to show that if

his argument was worth anything at all, it really proved the very statement he was trying to refute.

HENRY B. HEDRICK.

U. S. NAVAL OBSERVATORY,
WASHINGTON, D. C.,
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A REQUEST FOR MATERIAL.

I HAVE been at work for some time upon the problem of double monsters among animals and would be grateful for any material coming under this head. I wish instances of genuine double monsters, *i. e.*, those involving the doubling of some axial part of any vertebrate, embryonic or adult (naturally, not too large specimens), and am just now especially desirous of cases among birds. As this is the time of year at which embryological laboratories run their incubators, it seems likely that several such instances will be found by those not especially interested in the subject and who do not care to investigate them. If any such material appears superfluous I will try to make good use of it.

HARRIS HAWTHORNE WILDER.

SMITH COLLEGE,
NORTHAMPTON, MASS.

SPECIAL ARTICLES.

ELLIPTICAL HUMAN ERYTHROCYTES. (A SUPPLEMENTARY STATEMENT.)

ON March 18, 1904, I published in SCIENCE a note describing an unusual variation in the shape of human erythrocytes. As was stated in that article, the blood of a student at the Ohio State University contained elliptical red corpuscles, whose average length was 10.3 microns and whose average width was 4.1 microns. About 90 per cent. were thus deformed. The observation attracted considerable attention, Professor Austin Flint being one among several who wrote to me for a specimen of the blood. There resulted some correspondence between Professor Flint and myself, and in a letter to him I remarked that some time after my observations had been made the young man having these elliptical corpuscles had died. Since the claim had been made that the young man (a mulatto)