of from 200 to 800 cc. per minute. In this range the float moves through a distance of 125 mm. This

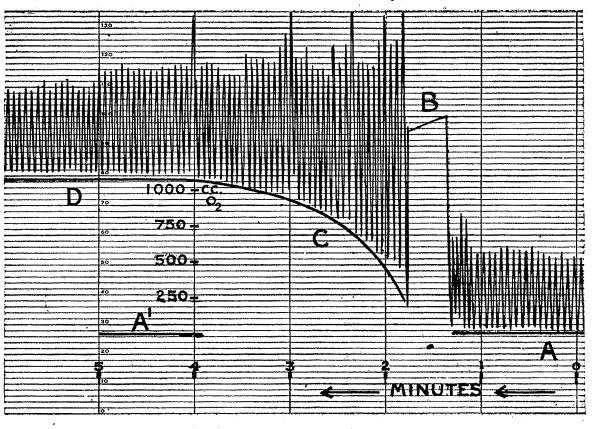

FIG. 2. A kymographic recording of the effect of a stair-climbing exercise on metabolism. Note recovery period as shown by the curve (C).

Rotameter was designed to measure small flows of liquids used in aviation equipment. Obviously, a tube of greater length with a similar range of delivery would aid in more precise reading.

Corrections for temperature and pressure for the Rotameter delivery are negligible and may be disregarded. Such corrections, however, are necessary for gas in the spirometer.

My principal purpose in designing the modification was for use in connection with class work of a course called "Applied Physiology." The report is given here with the thought that investigators more especially interested in metabolism studies may be better able to further develop the present modification. Our experience with the apparatus as shown in Fig. 1 indicates the desirability of redesigning other parts of the apparatus, especially for use with the Rotameter. One modification we have tried is the substitution of a respiratory bellows in place of the water spirometer. This makes respiratory movements much easier on the subject but increases difficulty of computations. Refinements in the construction and assembly of the apparatus would obviously contribute to greater accuracy and also further broaden its application.

Letters to the Editor

The McDonald Observatory

Your announcement of appointments at the Yerkes and the McDonald Observatories (*Science*, 1946, 103, 80), should be corrected to the effect that the McDonald Observatory is a part of the University of Texas and not of the University of Chicago. Appointments for both observatories are made by the University of Chicago, but the University of Texas owns the McDonald Observatory and approves the appointments.

OTTO STRUVE, *Director*
The W. J. McDonald Observatory, Fort Davis, Texas

Museum of Science and Industry

In *Science* (1946, 103, 17) you refer to our sister institution in New York as "The Museum of Science and Industry." This is misleading even though you add the words "Rockefeller Center, New York." We feel, in view of the history of the two institutions, that we are entitled to have our museum associated with that name.

The New York museum was founded under the name of "The Museum of the Peaceful Arts," while ours carried the name "The Rosenwald Industrial Museum." When we changed our name to "The Museum of Science and Industry," they changed to "The New York Museum of Science and Industry." At that time we protested the close copy of our name, but they declined to change, claiming that the qualifying words "New York" made the distinction clear. Certainly, to leave off these words is unfair to this institution, which considers itself entitled to its proper designation before the public. We will appreciate your consideration of this point.

RUSSELL H. ANDERSON
Museum of Science and Industry, Chicago

Malaria and Rainfall Periodicity in Palestine

The war has demonstrated the vital necessity of medico-geographical work. Yet, in order to be useful, it seems to us that future work in this field should avoid some of the pitfalls found in Dr. H. de Terra's "Rainfall periodicity in relation to malaria and agriculture in the Near East" (*Science*, 1945, 101, 629–631).

Studies in medical geography should be based not only on geography, but equally on medicine. Of course, excessive or insufficient regional rainfall is one of the causal factors of malaria epidemics, and such correlations have been attempted since the time of Hippocrates. (A. Hirsch has provided a survey of such attempts, which were particularly numerous about a hundred years ago, in *Handbook of Geographical and Historical Pathology*. London, 1883, Vol. I, pp. 258 ff.) It is not possible, however, to predict malaria epidemics simply on the basis of probable maxima of rainfall, for to do so is to reduce the complicated process underlying a malaria epidemic to one simple factor: the quantity of anopheles. (I. J. Kligler, who is one of Dr. de Terra's main sources, makes the follow-