

Wundt in 1861, which resulted in his important discovery of the *Zeitverschiebung*, which takes place when the observer connects clock beats heard from the seen positions of a star in apparent motion through the field of the telescope. As this *Zeitverschiebung* may be either positive or negative, it offers an explanation of the abnormal personal equations (more than a second of time) which Bessel found to take place in his own case, as compared with Argelander and Wilhelm Struve. The variations of personal equation depending on the magnitudes of the stars can most readily be studied by the help of heliometric or photographic relative right ascensions such as are now in progress of publication. The Pleiades, *Præsepe* and *Coma Berenices*, as well as the clusters in other parts of the sky which have been photographed by Rutherford, deserve careful study by transit observers. The delay in reaction caused by the faintness of the stars is now pretty well recognized by astronomers when the chronograph is used, but there are indications of a similar delay in apperception when the eye and ear method is still retained. Astronomers need to pay especial attention to those magnitudes of stars which are near the point where the observation of transits begins to become difficult.

T. H. SAFFORD.

CINNABAR AND RUTILE IN MONTANA.

TO THE EDITOR OF SCIENCE: I wish to call the attention of your readers to a new locality for cinnabar and rutile. Specimens were sent me from the placer works in the vicinity of Philipsburg, Montana, with the idea that they were hematite and emery. The cinnabar is in small rolled grains, quite pure, and the rutile in small prisms. Neither of these minerals are known to have been found in Montana before. I hope to obtain more definite information concerning the occurrence of these minerals later.

M. E. WADSWORTH.

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PYGMY VILLAGES DISCOVERED IN THE INTERIOR OF SURINAM, GUIANA.

TO THE EDITOR OF SCIENCE: Yesterday I received a letter from an American commer-

cial explorer of Guiana, who had recently met there with villages of typical pygmies, who are not over 4 feet 8 inches in height, and have a 'brilliant reddish-yellow complexion.' They seem to have come from the head waters of the Orinoco, and to be numerous enough to finally settle the problem as to the existence of dwarf races in America. Humboldt heard rumors as to them, but was unduly skeptical. I hope to be able, at the approaching meeting of the American Association at Buffalo, to submit a full description by the explorer, of his interesting discovery.

R. G. HALIBURTON.

BOSTON, MASS., July 29, 1896.

SCIENTIFIC LITERATURE.

Sporozoenkunde. VAN WASIELEWSKI. Ein Leitfaden für Aerzte, Tierärzte und Zoologen. Mit 111 Abbildungen im Text. Jena (Verlag von Gustav Fischer). 1896. Pp. 162. M. 4.

The specialist in parasitology is frequently asked by general zoologists and by physicians for a short comprehensive book, which, while not too technical and detailed, will serve as a general guide to a brief study of the Sporozoa. As a rule he recommends Balbiani's *Les Sporozoaires* (1884) and Bütschli's *Protozoa*, I. Bd., II. Abth. (1882), both of which are now rather old; Blanchard's *Traité de Zool. méd.*, I., p. 32-68, Railliet's *Traité de Zool. méd. et. agric.*, I., p. 122-160 (1893), and Braun's *Die tierischen Parasiten des Menschen*, pp. 47-106 (1895), which though excellent, do not cover the entire field; or possibly Pfeiffer's *Die Protozoen als Krankheitserreger* (1891)—a book which is very difficult to comprehend, and in which the line between fact and supposition is not always clearly drawn.

To this list of general works we can now add von Wasielewski's *Sporozoenkunde* which forms, in some respects, a very excellent compilation on these parasitic protozoa.

In a general introduction to the Sporozoa the author discusses their (1) distribution, (2) habitat, (3) form, (4) food and motion, (5) reproduction, (6) development, and (7) classification. Each group is then discussed in turn, and brief diagnoses of the more common genera and species are given. Next follows a valuable tabu-