Wundt in 1861, which resulted in his important discovery of the Zeitverschiebung, which takes place when the observer connects clock beats heard with 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 Rutherfurd, 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.

MICHIGAN MINING SCHOOL,
HOUGHTON, MICH.

PYGMY VILLAGES DISCOVERED IN THE INTERIOR OF SURINAM, GUIANA.

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

lar list of the parasites, arranged according to their hosts, and finally brief remarks on technique and a short bibliography.

The author recognizes the orders *Gregarinæ*, *Hæmosporidia*, *Coccidia*, *Acystosporidia*, and *Myxosporidia*, while the *Sarcosporidia*, *Amœbosporidia* and *Serosporidia* are given in an 'Anhang.'

In discussing the *Gragarinæ* Léger's classification is adopted. The chapter on *Hæmosporidia* is based almost entirely upon Labbé's writings; in this order the author recognizes only one family the *Drepanididæ*. In the classification of the *Coccidia*, A. Schneider is followed. Labbé's (1894) order *Gymnosporidia* appears as the *Acystosporidia*, and in it are placed the malarial parasites, the parasite of Texas fever and allied forms. In the chapter on the *Myxosporidia* Thélohan is followed.

While the general discussion of the groups is interesting, and the numerous illustrations give the reader unacquainted with these forms a very good idea of the Sporozoa, it is necessary to exercise considerable care in accepting the nomenclature adopted by the author, and further, not to assume that the numerous species mentioned by him in his compendium represent a complete list of the known forms. The reader should, therefore, be warned that this work is more fitted for use in obtaining a knowledge of the morphology and biology than of the classification of the *Sporozoa*. The generic and specific names adopted in many cases, and the authorities to which the binomials have been attributed, do not seem to have been determined by any particular principle. *Pyrosoma* Smith, for instance, is rejected as name of the parasite of Texas fever, on the grounds that it is preoccupied, while *Apiosoma* Wandolleck, (which is also preoccupied) is adopted, and the name *Piroplasma* is overlooked. The parasite of malaria is given as *Hæmamœba laverani*, although neither this generic nor this specific name can stand. *Balbiania gigantea* is quietly included in *Sarcocystis tenella*, notwithstanding the lack of grounds for so doing, while quite a number of other Sarcosporidia which have been described and named as belonging to three different genera are mentioned as '*Sarcocystis spec. inc.*'

It is possibly unfair to criticise these details adversely, yet, as the author includes the zoologists among the persons for whom his work is written, he should have had more regard for zoological customs. On the whole, von Wasielewski's Sporozoenkunde will be a welcome guide to those who desire to study this group, but who are unable to consult the original papers. CH. WARDELL STILES.

Report of the Government Entomologist for the Year 1895, Cape of Good Hope, Department of Agriculture. By C. P. LOUNSBURY.

This little volume illustrates three interesting points: First, that the Government of Cape Colony is an enterprising one, and will not allow itself to fall behind other governments in matters which affect the welfare of the agricultural community; second, that in appointing an entomologist it was considered to be for the best interests of the Colony that an American, trained in recent American methods in the warfare against insects, should be chosen; and third, that this American has in so short a time familiarized himself with the needs of the Colony in his own special line of work, and has presented as his first report a most excellent account of the species which are attracting particular attention at the present time in that country. The report is largely general and much attention is paid to the subject of the importation of injurious insects and of the desirability of legislation to check importation and spread. The species especially considered are certain scale insects, the peach maggot, codling moth, pear slug, the apple and quince borer and the so-called American blight, which is the name generally used in English colonies for the wooly root-louse of the apple, Schizoneura lanigera. The Government of Cape Colony is to be congratulated upon its appointment.

L. O. H.

Tenth Annual Report of the New York State Entomologist. By J. A. LINTNER, PH.D.

It is always a pleasure to receive a new report from Dr. Lintner. The full and careful articles which the reports of this writer always contain are models in style and treatment for the younger generation of economic entomolo-