

frontal convolution. A paper by Dr. John Punton follows, treating of mysophobia, with a report of a case, and emphasizing the close relation which exists between the so-called neurasthenias and insanity. Dr. Theodore A. Hoch's paper on acute anterior poliomyelitis, begun in the previous number, is concluded, with an exhaustive bibliography, and Dr. William W. Graves contributes a short paper on anesthesia associated with hyperalgesia sharply confined to the areola-nipple area of both breasts, which his experience leads him to consider as a pathognomic and practically constant stigma in hysteria.

WE learn from the *British Medical Journal* that the publication of a quarterly periodical, to be called the *Journal of Tropical Veterinary Science*, has been undertaken by Messrs. H. T. Pease, principal of Lahore Veterinary College; F. S. H. Baldry, professor of sanitary science, Punjab Veterinary College, and R. E. Montgomery, assistant imperial bacteriologist, Imperial Bacteriological Laboratory, Muktesar, U. P. Each number will, as far as possible, consist of original articles of scientific interest, with reviews and extracts from current literature. Nothing of a personal or political nature will appear in the journal. Amongst the subjects to be dealt with in the forthcoming numbers, for which arrangements have already been made, will be a series of articles on the anatomy, physiology, and pathological conditions of the camel and the elephant; the intestinal and other parasites of animals; the biting flies and the ticks of India, together with their importance in the transmission of disease. The first number will appear on January 1, 1906. The publishers are Messrs. Thacker, Spink and Co., Calcutta.

DISCUSSION AND CORRESPONDENCE.

CYANIDE OF POTASSIUM.

TO THE EDITOR OF SCIENCE: Recently when at Minas Prietas, Sonora, at the cyanide plant of Charles Butters, Limited, I observed in one of the settling tanks which was nearly full of pulverized ore, known metallurgically as 'slime,' that the surface of this material, which was saturated with and covered by a

solution of cyanide of potassium, was pitted by holes and marked by trails, which I assumed to belong to some small invertebrate. That they were of organic origin seemed too obvious to be worthy of question.

There was no opportunity for me to wait until the solution was drawn down sufficiently to permit of a careful examination of the surface of the pulverized material, so it remains for some future observer to determine the identity of the form which produced the markings.

The observation is communicated to you in the hope that it may invoke a communication of similar observations on the part of others. What seemed remarkable to the writer was that any form of animal life could exist in a solution of cyanide of potassium.

F. J. H. MERRILL.

SPECIAL ARTICLES.

THE PARACHUTE EFFECT OF THISTLE-DOWN.

THE importance of the down of the Canada thistle (*Carduus arvensis*) for seed distribution is a matter of common knowledge, but it may not be quite so well known just how this is accomplished from a mechanical point of view.

When the head of the Canada thistle is mature and the day dry (moisture closes up the head even though mature), the scales of the involucre spread and expose the fluffy mass to the air. At this time the achenes may be detached from the receptacle by the slightest force, permitting them to float away attached to the down. This closing of the head is brought about by the unequal turgescence of the cells in the bracts of the involucre.

The down which grows on the receptacle—not on the achenes—serves the function of helping to keep water from entering the head, thus permitting the achenes to become thoroughly dry, though the weather may be damp at the time. Dampness tends to hold the achenes fast to the receptacle, and this tends, in some measure, to defeat the purpose of the down, because it may become detached from the achene and float away without its precious burden. Both the calyx-down and the recep-