

7. The appearance of any of the protozoan forms under consideration, excepting *Amœba*, in appreciable numbers at the bottom is most often coincident with, or immediately subsequent to, its surface maximum, and portends its more or less rapid elimination as an important factor in the life of the infusion.

8. Numerous abnormal individuals and cysts are frequently to be found at the bottom in great abundance immediately after the surface maximum.

9. Emphasis is put upon the strictly biological interrelations (*e. g.*, those involving food and specific excretion products) of the various forms as the most important determining factors in the observed sequence.

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The experimental demonstration of the identity of so-called Brill's disease to typhus fever.

By **J. F. ANDERSON** and **J. GOLDBERGER**.

[*From the Hygienic Laboratory.*]

The rhesus monkey is susceptible to infection by inoculation with the blood from a case of "Brill's disease." One attack of the disease in the monkey induces a definite immunity to a subsequent infection with virulent blood of the same strain. Monkeys recovered from an infection with "Brill's disease" have been found to be immune to a subsequent infection with virulent blood from a case of Mexican typhus fever. Monkeys recovered from an infection with Mexican typhus fever have been found to be immune to a subsequent infection with "Brill's disease."

From the above results we conclude that the disease described by Brill is identical with the typhus fever of Mexico, and inasmuch as the New York strain is undoubtedly of European origin, we may also conclude that the typhus of Europe and the tabardillo of Mexico are identical. If this conclusion is correct, typhus fever has been present in New York City for a number of years and, according to verbal reports made to us, has occurred in other large cities of the United States. These results make the clinical recognition and study of typhus fever of increased importance and necessitate the exercise of appropriate prophylactic measures.

It is not intended to exaggerate the menace of this disease to the public health. Nevertheless, although the disease in New York City has apparently been mild and has shown little tendency to spread, it is apparently on the increase there and the possibility should be borne in mind that it may acquire virulence and epidemic prevalence.

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The relation of the parathyroid glands to electrical hyperirritability.

By **HERBERT B. WILCOX.**

[From the Laboratory of Clinical Pathology of the College of Physicians and Surgeons, N. Y. C.]

The following observations were undertaken for the purpose of obtaining information as to the relation between parathyroid lesion and infantile tetany and of the value of the galvanic reaction as a diagnostic sign of the disease.

In all 25 operations were done on 18 dogs, tests being carried on during August and September, 1910, and from March, 1911, to the present time.

Information was sought on the following points:

1. The limits of response to be expected in peripheral galvanic stimulation of the normal dog.
2. The influence of age upon this galvanic response.
3. The comparability of electrical response in the dog to that of man.
4. The incidence of electrical hyperirritability and tetany following injury to or removal of 1, 2, 3 or all of the parathyroid glands.
5. The time of appearance of these evidences after operation.
6. The length of time by which the electrical evidences precede the physical signs of tetany in their appearance.
7. The constant or varying qualities of the changes of response to electrical stimulation.
8. The frequency of the presence of the electrical evidences of tetany when all other signs are absent.