

of doubt whether, with the exception of two diseases (malignant pustule and splenic fever), the presence of the particular form of bacteria caused the disease, or whether it was not merely associated with the condition of the patient and the debilitated state of the system generally. In the course of his lecture, the Professor suggested that it would be profitable, in the best sense, to establish laboratories for prosecuting original scientific research by competent professors into the many wide and important questions associated with the subject of the presence of unseen enemies in the daily life of our population.

#### EFFECTS OF STARVATION AND SOME DISEASES ON THE BLOOD.

According to that valuable periodical, the *Scientific American*:—During the last hour of Dr. Tanner's forty days' fast, some of his blood was withdrawn from the hand and subjected to a careful microscopic examination. It was found to be entirely different from healthy blood. The corpuscles—otherwise smooth and round flat disks, with a depression in the centre, and of an average diameter of 1-3600th part of an inch—were found to be ragged, irregular, and shrunk to the average of about 1-5000th part of an inch in diameter, and their rough appearance was generally caused by points projecting from their surface, and looking like a fungoid growth which covered them, while in many the growth appeared to be taking place at the expense of the corpuscle itself and living on its substance, as the corpuscles most densely covered were the smallest and most irregular in shape; in fact some of them appeared to be breaking up.

It is a common law observed in organic substances that when a breaking up of a structure is im-

pending, foreign living organisms springs up, and are sustained at the expense of the decaying organic body. Mould, and all kinds of fungoid growth, originate according to this law. It appears that such growth is not confined to large masses, but is even found on the surface of such small objects as the corpuscles of the blood; this in fact has been recently investigated by microscopists, especially Korel, and such growth was found upon the blood corpuscles of patients when suffering from various malarious diseases, such as typhoid fever, etc., also in the last stages of consumption: and they agree that this growth exerts a destructive influence upon the body in which it takes root. The appearance of Dr. Tanner's blood verifies this opinion.

The effect on the blood was very perceptible twenty-four hours after breaking the fast. The fungoid spores had disappeared from a great many of the blood corpuscles, or, rather, perhaps, fresh ones had been evolved in the system, as they looked as smooth and fresh as if they were entirely new. At the second day about half of the blood had become normal, while on the third day most all the corpuscles were restored.

#### TRUE TEMPERANCE.

We have repeatedly urged in this JOURNAL the importance of sanitary work in connection with "temperance" work. Men are driven to intemperance by insanitary surroundings at home, and the want of good vigorous health caused thereby.

An esteemed contemporary, *Good Health*, Battle Creek, Michigan, observes: "We are glad to see that our temperance workers, or at least some of them, are beginning to recognize the fact that true temperance is something more than