

large number of congenitally deficient children brought for an opinion as to their future prospects in life, and many suffering from moral deficiency and vicious propensities are brought for treatment, in order that they may develop a well balanced character, not given to fury of temper, idleness, untruthfulness, or dissolute habits. Some of these children are of the lowest poor, and if their condition were not discovered they might grow up a menace to society, the boys becoming tramps and criminals, the girls becoming mothers of illegitimate children or taking to the streets."

Many patients are broken down in physical health and, having worried over family misfortunes or other personal affairs, their mental balance has given way. With proper directions for home care and home treatment, or in suitable cases for family care, in cottages in the country, their health is restored and the much-dreaded asylum avoided.

There are many persons in the preliminary stages of insanity, and others suffering from nervous derangements, who are thus treated without deprivation of their liberty, and if more such institutions existed so that the public in cases of mental breakdown would feel they could get treatment without the restrictions of an asylum, which call for a struggle and resistance even in the mentally sane, Dr. Hollander thinks it will be much easier to induce the patients themselves to submit to treatment, and thus the happiness of the insane poor will be increased, many good workers will be saved by timely and suitable aid, and the public will be relieved of a steadily-growing expenditure.

Hand Disinfection.

At a recent clinical meeting of the medical board of the Massachusetts General Hospital, U.S.A., says the *International Hospital Record*, Dr. P. W. Harrison presented the following report on hand disinfection:—

The work here reported was an effort to ascertain the best method of disinfecting the hands between ward dressings. The procedure was simple. A liberal amount of a culture of bacillus prodigeosus was placed on the hands, which were then vigorously scrubbed. At intervals, a wad of sterile gauze was rubbed over the hands and dropped entire into a bouillon tube. These tubes were taken at once to the laboratory, mixed, gauze wad and all, with agar, previously melted and cooled. The cultures were kept for three days or longer at room temperature. Among the numerous colonies of tapwater bacteria, the red colonies of bacillus prodigeosus show beautifully.

The first series of cultures were made with bare hands, scrubbing in running water.

Culture after 15 seconds scrubbing in running water: Many red colonies.

Culture after 30 seconds scrubbing in running water: Many red colonies.

Culture after 1 minute scrubbing in running water: Moderate number red colonies.

Culture after 2 minutes scrubbing in running water: Few red colonies.

Culture after 4 minutes scrubbing in running water: No red colonies.

To make the matter more precise, two further experiments were done, with cultures taken at intervals of fifteen seconds. The red colonies became few and scattering after from one and a-half to two-minute scrubbing. Occasionally colonies persisted up to four minutes, and in one case up to four and one quarter minutes. Apparently, then, four minutes' scrubbing in running water will render the bare hands very nearly clean, from a surgical standpoint.

The second series of experiments was made wearing rubber gloves. Running water was used in one part of these experiments. In a second series the hands were scrubbed in still water, changed every fifteen seconds, at which intervals the cultures were taken.

Technic as stated above. Unpatched rubber gloves. Still water changed every fifteen seconds.

15 sec. Many colonies.

30 " Few colonies.

45 " Very few colonies.

1 min. 4-5 colonies.

1.15 min. 4-5 colonies.

1.30 " No red colonies.

1.45 " One colony.

2 " No red colonies.

This same experiment was repeated with carefully patched gloves, with practically the same results.

In a further series of experiments with the gloves, running water was used. Technic as above. Cultures every fifteen seconds.

Cultures after scrubbing in running water 15 seconds: No red colonies.

Cultures after scrubbing in running water 30 seconds: No red colonies.

Cultures after scrubbing in running water 45 seconds: No red colonies.

Cultures after scrubbing in running water 1 minute: No red colonies.

The culture of bacillus prodigeosus used for this experiment was tested in the same media used in the experiment, and found to grow vigorously. Evidently vigorous scrubbing for fifteen seconds in running water was sufficient to remove all of the bacteria in question from the gloves. The same experiment with gloves patched gave identical results.

The same experiment was repeated on rubber

[previous page](#)

[next page](#)