

# The Canada Lancet

A Monthly Journal of Medical and Surgical Science, Criticism  
and News.

Advertisements inserted on the most liberal terms. All Cheques, Express and P.O. Orders to be made payable to THE CANADA LANCET PUBLISHING CO., 11½ Janes Building, Toronto.

The Largest Circulation of any Medical Journal in the Dominion.

## EDITORIAL.

### THE BACTERIAL SYSTEM OF SEWAGE DISPOSAL.

In the purification and disposal of sewage, a most important branch of preventive medicine, science has not lagged much behind other branches of medicine, even surgery. The bacterial system of purification now seems to have practically disposed of this long unsettled and troublesome question. It may be made applicable to large cities as well as to smaller towns and country residences.

The purification is all accomplished by bacterial action. The first process, that of complete liquification of the sewage, is most simply accomplished by anaërobic bacteria, in what is termed the "septic tank." The tank is made, preferably, long and shallow, and of such capacity as to hold a twenty-four hours' outflow of sewage. It is tightly covered to exclude air and sunlight as far as possible, and it is not allowed to get full.

The solids of the sewage, after this has entered the still water of the tank, below the surface, are in a measure set free, some floating, some sinking to the bottom of the tank, according to their specific gravity. All are at once attacked by the micro-organisms present and are soon dissolved, the heavier particles settling to the bottom. A sort of leathery scum is formed on the top of the sewage. Gaseous bubbles are formed from the organic particles at the bottom of the tank, which rise, carrying up solid particles, squeeze through this thin scum and soon burst, under the cover of the tank. The solids so carried up being thus set free, settle to the bottom again, and the air-bubble process is repeated until the whole of the organic matter has been disposed of, and all that remains is inorganic ash at the bottom of the tank, on which bacteria cannot feed.