vegetation, it is purified and then flows through the sub-soil drains into the nearest water-course. The same process is repeated on another portion of the land and then on another, and by the time the whole surface has been treated in this manner, the first portion is ready again to receive the sewage, the soil having had time to dry and re-absorb air. By this method, which is known to sanitarians as "intermittent downward filtration," the soil can never get soaked with water and the organic impurities are thoroughly destroyed by the action of the air and the roots of vegetation.

The requisite extent of filtering area, as estimated by the Rivers Pollution Commissioners (England), is one acre drained to a depth of six feet for every 3,300 of the population, but this ratio must vary according to the nature of the soil.

The soil should be porous and have an easy slope.

Irrigation.

When used as manure the fields are irrigated with the liquid, either by means of surface trenches or open-jointed drain-tile pipes, laid about a foot below the surface. The former method is the cheapest and requires less care to maintain it in good working order. The soil should be under-drained and the sewage should be applied on the intermittent downward-filtration principle explained above.

Sewage farms have been worked for a good many years in England and on the Continent of Europe, and although at first they were looked upon in many instances as public nuisances, yet of late years, with increasing experience and resulting improved methods, they have been gradually growing in public favour. It seems to be the general testimony of medical men, chemists and others, that, when properly managed, they are in no wise injurious to the health of the people in the neighbourhood, and that the produce of such farms, both animal and vegetable, is fully as wholesome as that of any other.

On a sewage farm there should be at least three sets of fields, viz.: one for summer irrigation, a second for winter irrigation, and a third for what may be called storm-water and residual irrigation.

The fields for summer irrigation are treated regularly with the sewage during the growing period of the crop. When the harvesting of the crop or other circumstances render it necessary to stop the irrigation on the fields, it is directed on to the residual irrigation fields. This is also done during storms or floods, in cases where the storm-water passes through the sewers, when the volume of sewage is too great to be used on the ordinary fields. The fields for residual irrigation are best kept in grass and may be used for pasture.

During the winter the sewage is directed on to another set of fields. These are ploughed in the spring and cultivated during the ensuing season without any further addition of sewage: that received during the winter generally proving sufficient.

The experience of Dantzic on the Baltic has shown that winter irrigation is possible even in a cold climate. The mercury is said to fall to 6° or 8° below zero every winter, and in the winter of 1874-5, when it reached 17° below zero, the irrigation was interrupted only three times, and only for a few days each time. "The ground is usually frozen to a depth of three or four feet for about three months; the snow is often several feet deep. The sewage flows out under the snow through the many furrows pre-