

upon the question at issue, we would quote from the journal :

"On Saturday, July 7th, the Association of Public Sanitary Inspectors paid a visit to the Croydon Sewage Farm at Beddington, at the invitation of and under the guidance of Dr. Alfred Carpenter. As this farm has been in existence for more than thirty years, and now disposes of the sewage of nearly 100,000 people, a short account of it—for much of it we are indebted to a statement compiled by Mr. Alderman Grundy, chairman of the Beddington Farm Committee—may prove interesting to our readers. The farm, which lies in the parish of Beddington, about two miles from Croydon, consists of about 600 acres of land, 500 acres being used for irrigation, but not more than 75 acres being under sewage at one time. The soil is fairly light, with a gravel sub-soil. The land has an easy natural fall to the River Wandle, so that no pumping is necessary at any point after the sewage leaves the town. Croydon is for the most part sewered on the separate system, but during times of heavy rainfall—as during the past week—the sewage, of which the average dry weather flow is about four million gallons daily, is much increased in volume, even to more than double the above-mentioned quantity, and it is then allowed to flow over three acres of osier beds, which will take any quantity of sewage without injury to the crop, or, failing this, over the land where it will do least damage. There are no storm overflows, so that all the sewage, even during the wettest periods, must pass over land—none can enter the stream untreated.

Before arriving at the farm, the coarser solid bodies are removed from the sewage in the outfall sewer by means of a Latham's extractor. The sewage is then passed over the land, which is laid out for broad or surface irrigation. As a rule the treatment adopted is as follows:—The crude sewage enters the subsidiary carriers from the main carriers, and is then forced by the lowering of sluice board; to flow down open grips at right angles to the carriers, from which it flows over the surface of the field when backed up by boards placed in the grips. The effluent sewage is brought back to mix with the crude sewage, and this weakened sewage is passed twice again over the land. In the first field all floating particles are arrested by the rye-grass, and the sewage is partly purified. From the

second field the water passes off clear; from the third field, which is permanent pasture at the lower end of the farm, the effluent comes off clear, of a yellowish tint, but free from sewage odour, and is then discharged through a channel into the River Wandle. The lower part of the farm, near the river, is underdrained, at a depth of 5 or 6 feet; but the larger portion is undrained, so that the purification is chiefly by surface flow, and by means of the growing vegetation, which absorbs impurities through its roots, and not to any large extent by filtration of the sewage through the soil. Italian rye-grass having a large capacity for absorbing sewage, which benefits it at all stages of growth, forms the staple crop of the farm. It is cut green when the seeds begin to grow, and is sold to cowkeepers, who cart it away. Mr. Dibbins, a dairy farmer who has cowsheds for 200 head of cattle at the south-west corner of the farm, is a large customer for rye-grass and mangolds. Three or four crops, averaging 10 tons an acre, are produced yearly. Any rye-grass not sold is made into hay, but, except in a very dry season, haymaking is a very tedious process, involving much labor. Rye-grass is only made into hay from necessity. Ensilage has been tried, but has not been persevered with. When the land has been under rye-grass for three years it is ploughed up, and crops of mangolds, beets, vegetables, and corn are grown, but these take little or no sewage. They, however, serve a useful purpose in exhausting the sewage left in the land by the rye-grass. After two or three years of these crops rye-grass is again grown. The corporation do not now keep live stock, but horses and cattle are taken in to graze on the pasture lands, and most of the produce of the land is sold to dairy farmers. The Association inspected Mr. Dibbin's 200 head of cattle, including numerous milch cows, in his admirably constructed and appointed cowsheds, and the beasts, which are at this time of the year fed on sewage-grown rye-grass and grains, were all in prime condition and free from any trace of disease. As to the cost of the farm to the corporation, the surplus of receipts over payments for the year ending Lady Day, 1888, was a little over £1,000; the surplus for the present year, which has every prospect of being a bad one for sewage farming, is estimated at about the same figure. This does not include anything for interest on the capital sunk in the purchase of the farm. The