

(g) Treating effluent from (e) on fine Bacteria Beds, and not on land.

The capacity of the tanks was 144,593 gallons, area of coarse beds one-tenth of an acre, and area of fine beds 150 square yards. From 62,000 gallons to 429,000 gallons (in storms) was treated per day.

He obtained the best results by using either the Detritus tank (closed or open) followed by treating the sewage on coarse Bacteria Beds then on land, the beds being worked on the intermittent system.

The following table shows the degree of purification obtained, the quantities being given in grains per gallon :—

	Crude Sewage	Effluent from		
		Detritus Tank.	Bacteria Beds.	Grass Land.
Suspended Matters.	43.7	20.32	4.87	0.385
Alb. Ammonia.	1.182	0.893	0.343	0.156
Oxygen absorbed.	7.442	5.795	2.145	0.663

The Leicester sewage is strong, particularly in albumenoid Ammonia.

The purification effected before reaching the grass land averaged 77 per cent.

Land purification is now recognized as being due to bacterial action, as in the Sutton system, but in the majority of cities and towns a sufficient area of suitable land is not available within a reasonable distance, or at such an elevation that the sewage can be conveyed to it by gravity.

At Manchester, the experts engaged by the city have advised the adoption of the double contact beds preceded by a septic tank, and state that this system is not only the best for Manchester but for the whole world.

The construction of Bacteria Beds and of Septic Tanks are simple problems in Engineering, but the areas and capacities of tanks and beds, the materials and grade of the filling materials, and method of working, must be determined in each case by an