No. 877,569. PATENTED JAN. 28, 1908.

A. I. JOSEPH.

APPARATUS FOR TREATING SEWAGE.

APPLICATION FILED DEC. 29, 1906.

2 SHEETS—SHEET 1.

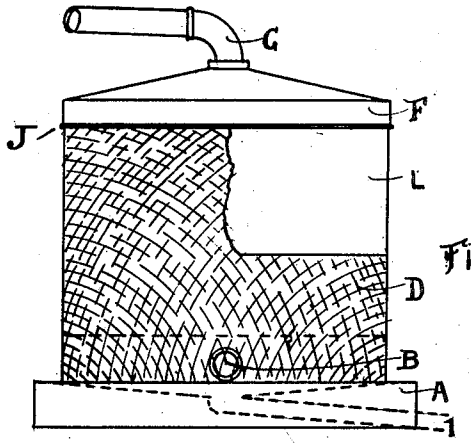


Fig 1

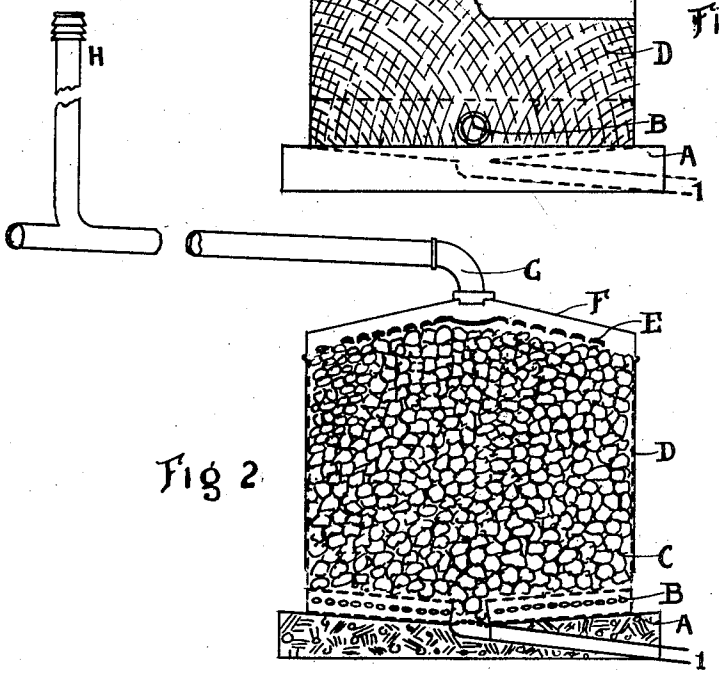


Fig 2

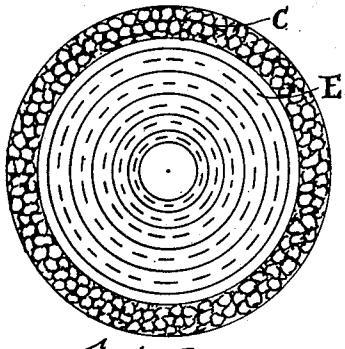


Fig 3

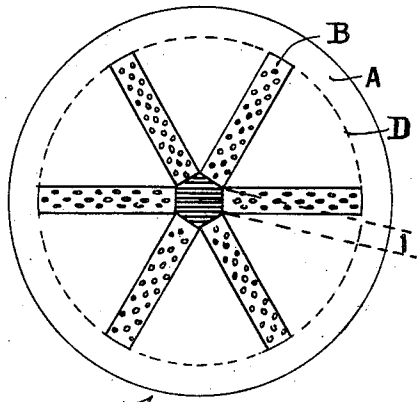
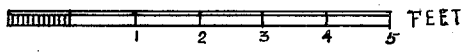


Fig 4



Witnesses
Alfred & Co.
Carried Swift

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2 SHEETS—SHEET 2.

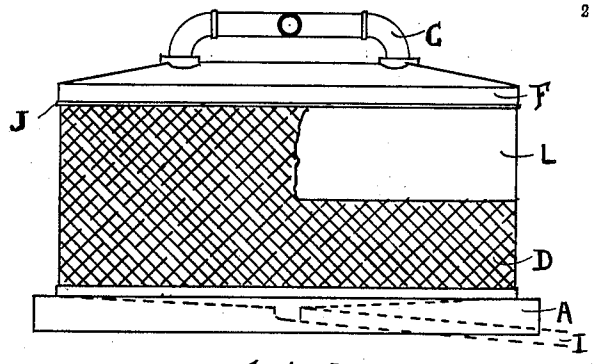


Fig 5

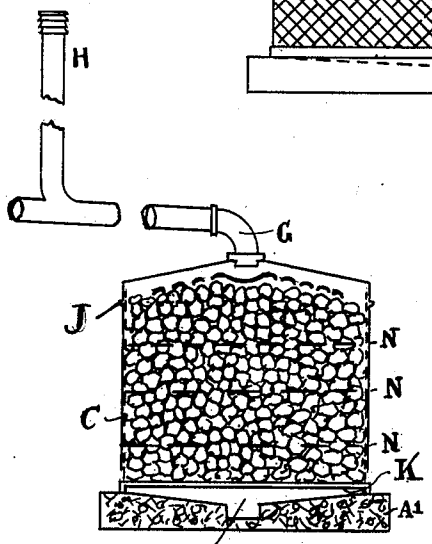


Fig 6

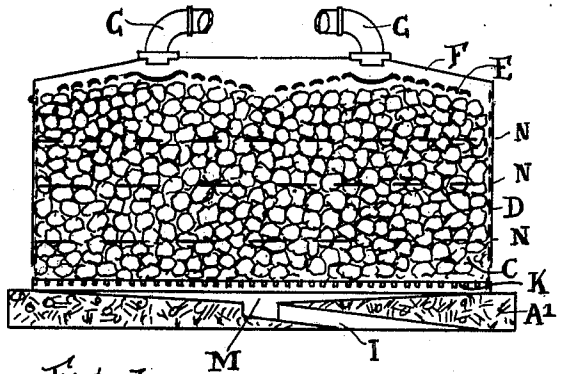


Fig 7

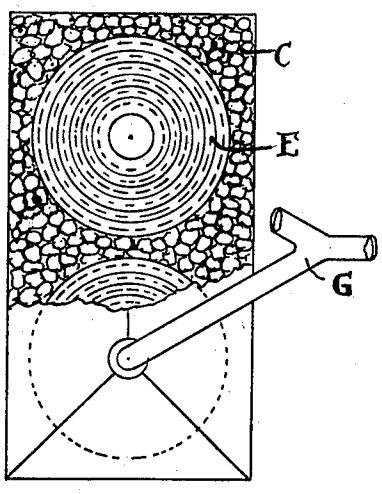


Fig 8

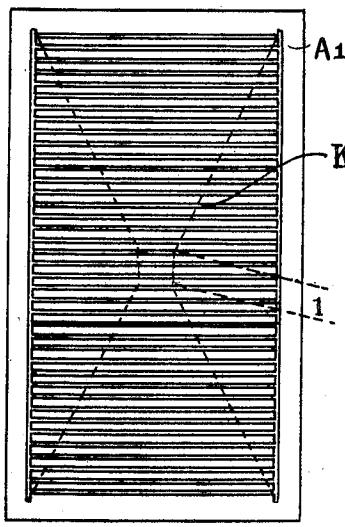


Fig 9

Witnesses
Alfred D. Cox
Edward Dwight

INVENTOR
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UNITED STATES PATENT OFFICE.

ARTHUR I. JOSEPH, OF SYDNEY, NEW SOUTH WALES, AUSTRALIA.

APPARATUS FOR TREATING SEWAGE.

No. 877,569. Specification of Letters Patent. Patented Jan. 28, 1908.

Application filed December 29, 1906. Serial No. 349,994.

To all whom it may concern:

Be it known that I, ARTHUR IORWERTH JOSEPH, a subject and citizen of Australia, residing at Hoffnung's Chambers, 163 Pitt street, Sydney, State of New South Wales, Commonwealth of Australia, sanitary engineer, have invented new and useful Improvements in the Septic Treatment of Sewage, of which the following is a specification.

My invention consists in an improved apparatus for treating sewage and it has for its object septic treatment of sewage after said sewage leaves the septic liquefying tank.

The invention consists in the features of construction and combination and arrangement of parts hereinafter described and particularly pointed out in the claims.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 is an elevation of the circular form of bed. Fig. 2 is a vertical cross section through the center of such bed. Fig. 3 is a plan of said bed with the ventilating hood removed. Fig. 4 is a plan of the concrete base showing air pipes radially thereon. Fig. 5 is an elevation of a rectangular form of bed. Fig. 6 is a vertical section of a rectangular bed resting on the grading supported by the base. Fig. 7 is a longitudinal vertical section of the rectangular bed showing two distributers therein. Fig. 8 is a plan of the bed shown in Fig. 7 with part of the hood removed. Fig. 9 is a plan of the grating.

In these drawings A is a concrete or other solid base upon which rests the aerating bed C which is composed of broken stone, metal or other suitable substance, which is held in place by a cage B which is composed of expanded metal or wire netting. On the base A are located the perforated pipes B which extend radially from the center to the cage D.

E is a distributer located above the material C. Said distributer is of circular and conical form and has concentric corrugated grooves with slots therein. The apex of the distributer is of dished form as shown in Fig. 2.

F is the conical ventilating hood located above the distributer and this hood may terminate at J, as shown in Figs. 1, 5 and 6, or it may extend down to about the middle of the cage D, as shown at L in Figs. 1 and 5.

G is the supply pipe fitted into the apex of the hood F leading from the septic tank.

H is the ventilating shaft and cowl fixed at a suitable point in the pipe G. I is a pipe for conducting effluent from the aerating bed.

In Figs. 5, 6, 7, 8 and 9 the bed is made rectangular instead of circular and two distributers and two inlet pipes are shown therein. Also a grating K resting on the base A' is provided to take the place of the pipes B.

Figs. 6 and 7 show bands N or rings of metal passing around the cage D.

The liquid flowing through the pipe G falls on the dished center of the distributer E and flows over the edges thereof, and passes through the slots in the distributer, and is thus distributed over the material C. The pipes G and H, together with the hood F act as an exhaust as they draw upwards through the base C, the air admitted through the pipes B and sides of the cage.

What I claim is:

1. An apparatus for the treating of sewage comprising a cage, a concrete base therefor, an aerating bed in said cage, means for forming air passages between the bed and base and a ventilating hood covering the bed, substantially as described.

2. An apparatus for treating sewage comprising a base, a cage thereon, an aerating bed in said cage, means for forming air passages between the base and the bed, a distributer located above the bed, said distributer being of cone shape and having concentric corrugated grooves having slots therein, and a ventilating hood covering the bed and distributer, substantially as described.

Dated the twenty-seventh day of November 1906.

ARTHUR I. JOSEPH.

Witnesses:
ALFRED DE PIOSA.
CARRIE DWYER.