

Specification of William Frost Sweetland and John Merfield : purifying sewage.

Contributors

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Merfield, John.

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A.D. 1870, 27th OCTOBER.

N° 2832.

SPECIFICATION

OF

WILLIAM FROST SWEETLAND
AND
JOHN MERFIELD.

PURIFYING SEWAGE.

LONDON:

PRINTED BY GEORGE E. EYRE AND WILLIAM SPOTTISWOODE,

PRINTERS TO THE QUEEN'S MOST EXCELLENT MAJESTY:

PUBLISHED AT THE GREAT SEAL PATENT OFFICE,

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1871.

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A.D. 1870, 27th OCTOBER. N° 2832.

Purifying Sewage.

(This Invention received Provisional Protection only.)

PROVISIONAL SPECIFICATION left by William Frost Sweetland and John Merfield at the Office of the Commissioners of Patents, with their Petition, on the 27th October 1870.

We, WILLIAM FROST SWEETLAND, of Hendon, and JOHN MERFIELD,
5 of No. 216, Goswell Road, Islington, both in the County of Middlesex,
do hereby declare the nature of the said Invention for "IMPROVEMENTS
IN APPARATUS FOR PURIFYING SEWAGE," to be as follows:—

This Invention has for its object improvements in apparatus for
purifying sewage. For this purpose we employ tanks each with a per-
10 forated false bottom or floor, on which a filtering bed is laid. Over the
filtering bed is a tray with a bottom of woven fabric or other reticulate
material, and into this the sewage is run, the air is exhausted by an air
pump or in other convenient way from beneath the false bottom or floor
and then the pressure of the air on the surface of the sewage in the tray
15 forces the liquid parts of the sewage through the open fabric or material
forming the bottom of the tray, and through the filtering bed beneath
into the lower part of the tank, from whence it is drawn or allowed to
escape in its clear and purified state to any outfall. From time to

Sweetland & Merfield's Impts. in Apparatus for Purifying Sewage.

time the tray with the solid material remaining in it is lifted out of the tank, and the solid material is removed for use as manure. When after a time the filtering bed requires to be removed the bottom or floor on which it is laid is similarly lifted out of the tank to be discharged and for the filtering bed to be relaid. Where the apparatus is large the false 5 bottom or floor on which the filtering bed is supported may be made in a number of sections moveable separately. Or the side of the tank may be made to open to allow the bottom or floor to run out on guide rails. Two or more tanks are employed, and they are worked alternately, that is to say, when the tray with the accumulation of solid materials is lifted 10 out of one tank the sewage is directed into the other. The tank and false bottom or floor and the tray may be cylindrical or of other form.

LONDON:

Printed by GEORGE EDWARD EYRE and WILLIAM SPOTTISWOODE,
Printers to the Queen's most Excellent Majesty. 1871.



