

Specification of Maxwell Anketell and Oliver Frederick Anketell : manufacturing manure and fuel from sewage, &c.;

Contributors

Anketell, Maxwell.
Anketell, Oliver Frederick.

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A.D. 1870, *26th JANUARY.* N° 239.

S P E C I F I C A T I O N

OF

MAXWELL ANKETELL
AND
OLIVER FREDERICK ANKETELL,

MANUFACTURING MANURE AND FUEL
FROM SEWAGE, &c.

LONDON:

PRINTED BY GEORGE E. EYRE AND WILLIAM SPOTTISWOODE,

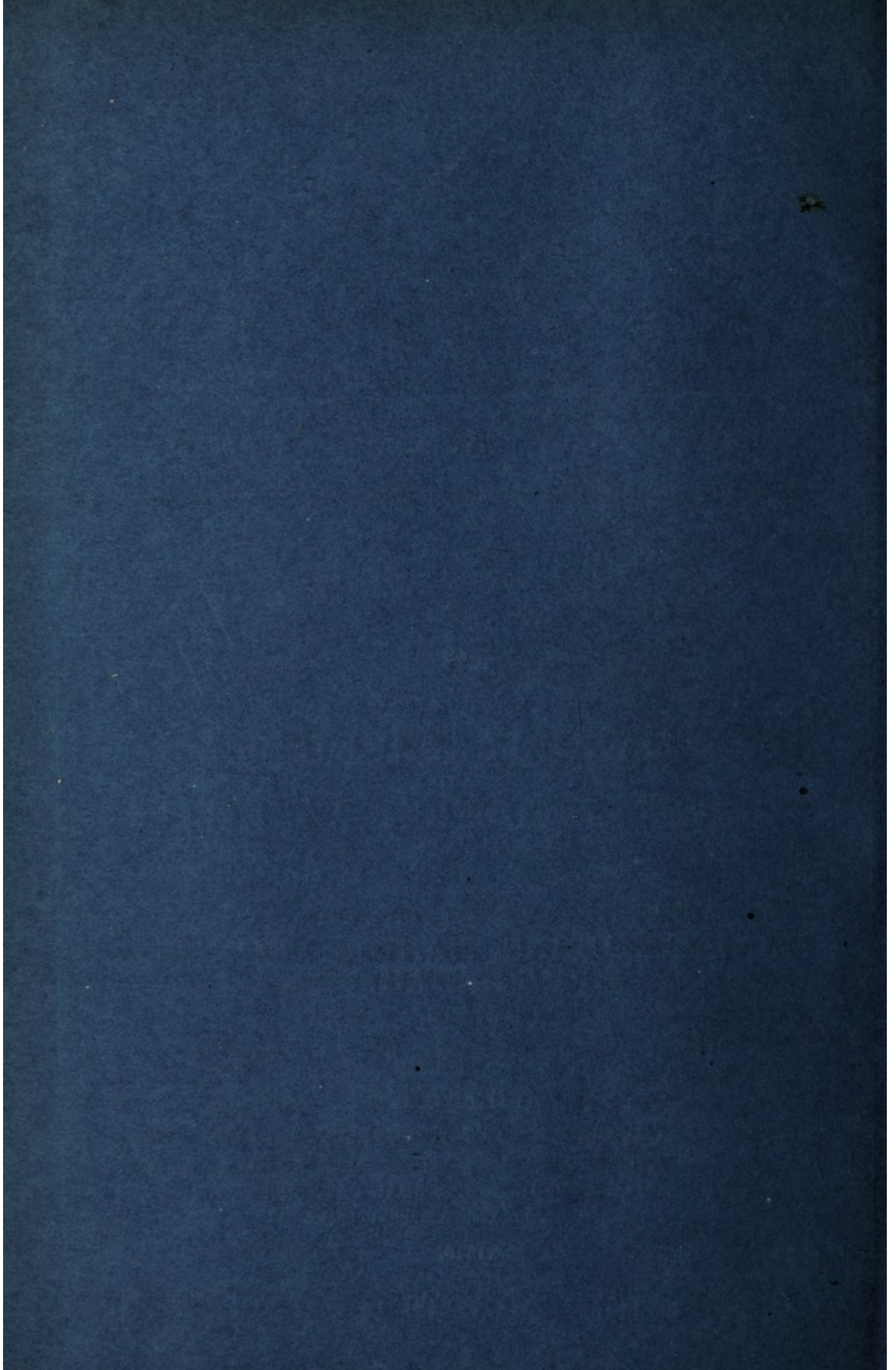
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A.D. 1870, 26th JANUARY. N° 239.

Manufacturing Manure and Fuel from Sewage, &c.

LETTERS PATENT to Maxwell Anketell, of Ealing, in the County of Middlesex, and Alexandria, in Egypt, Merchant, and Oliver Frederick Anketell, of Ladbroke Square, Notting Hill, in the County of Middlesex, Gentleman, for the Invention of "IMPROVEMENTS IN THE PRODUCTION OF MANURE AND FUEL FROM SEWAGE OR EXCREMENTAL OR FECAL MATTER, AND IN APPARATUS FOR SUCH PURPOSE."

Sealed the 15th July 1870, and dated the 26th January 1870.

PROVISIONAL SPECIFICATION left by the said Maxwell Anketell and Oliver Frederick Anketell at the Office of the Commissioners of Patents, with their Petition, on the 26th January 1870.

We, MAXWELL ANKETELL, of Ealing, in the County of Middlesex, and Alexandria, in Egypt, Merchant, and OLIVER FREDERICK ANKETELL, of Ladbroke Square, Notting Hill, in the County of Middlesex, Gentleman, do hereby declare the nature of the said Invention for "IMPROVEMENTS IN THE PRODUCTION OF MANURE AND FUEL FROM SEWAGE OR EXCREMENTAL OR FECAL MATTER, AND IN APPARATUS FOR SUCH PURPOSE," to be as follows:—

The object of our Invention is the manufacture of manure and fuel from sewage or excremental or fecal matter.

M. & O. F. Anketell's Impts. in Manufacturing Manure and Fuel, &c.

According to our Invention we proceed as follows :—We first separate the solid from the liquid portions of the sewage or excremental or fecal matter by filtration or other ordinary process; we then dry it by passing it through heated chambers or otherwise, whereby we evaporate it and deodorize it, and we then form the dried mass into cakes, blocks, 5 or pieces by means of pressure.

In performing our Invention we recommend the following mode of drying and treating the material :—After separating the solid from the liquid portions we pass the former through revolving or vibrating tubes, cylinders, or chambers carried through furnaces or drying rooms, the 10 ends of such tubes or chambers being preferably without the furnace or drying room. The tubes or chambers are arranged in a series so that the material under treatment may pass from one such tube to the next succeeding, and so on, the tubes or chambers being inclined or provided with feed apparatus or otherwise arranged so that the material may 15 pass readily from one tube or chamber to the next, and so on until it is finally delivered in a sufficiently dried, evaporated, and deodorized condition to a compressing apparatus, which cuts, stamps, moulds, rams, or presses the material into the shapes required (cakes, blocks, or other portable forms). The material can be crushed and pulverized, and it 20 can also be dissolved in liquid or reduced to a liquid condition.

SPECIFICATION in pursuance of the conditions of the Letters Patent, filed by the said Maxwell Anketell and Oliver Frederick Anketell in the Great Seal Patent Office on the 26th July 1870.

TO ALL TO WHOM THESE PRESENTS SHALL COME, we, MAXWELL 25 ANKETELL, of Ealing, in the County of Middlesex, and Alexandria, in Egypt, Merchant, and OLIVER FREDERICK ANKETELL, of Ladbroke Square, Notting Hill, in the County of Middlesex, Gentleman, send greeting.

WHEREAS Her most Excellent Majesty Queen Victoria, by Her 30 Letters Patent, bearing date the Twenty-sixth day of January, in the year of our Lord One thousand eight hundred and seventy, in the

M. & O. F. Anketell's Impts. in Manufacturing Manure and Fuel, &c.

thirty-third year of Her reign, did, for Herself, Her heirs and successors, give and grant unto us, the said Maxwell Anketell and Oliver Frederick Anketell, Her special licence that we, the said Maxwell Anketell and Oliver Frederick Anketell, our executors, administrators,
5 and assigns, or such others as we, the said Maxwell Anketell and Oliver Frederick Anketell, our executors, administrators, and assigns, should at any time agree with, and no others, from time to time and at all times thereafter during the term therein expressed, should and lawfully might make, use, exercise, and vend, within the United Kingdom of
10 Great Britain and Ireland, the Channel Islands, and Isle of Man, an Invention for "IMPROVEMENTS IN THE PRODUCTION OF MANURE AND FUEL FROM SEWAGE OR EXCREMENTAL OR FECAL MATTER, AND IN APPARATUS FOR SUCH PURPOSE," upon the condition (amongst others) that we, the said Maxwell Anketell and Oliver Frederick Anketell, our executors or administrators,
15 by an instrument in writing under our or their hands and seals, or under the hand and seal of one of us or them, should particularly describe and ascertain the nature of the said Invention, and in what manner the same was to be performed, and cause the same to be filed in the Great Seal Patent Office within six calendar months next and
20 immediately after the date of the said Letters Patent.

NOW KNOW YE, that we, the said Maxwell Anketell and Oliver Frederick Anketell, do hereby declare the nature of the said Invention, and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement thereof,
25 that is to say :—

The object of our Invention is the manufacture of manure and fuel from sewage or excremental or fecal matter.

According to our Invention we proceed as follows :—We first separate the solid from the liquid portions of the sewage or excremental or fecal
30 matter by filtration or other ordinary process ; we then dry the solid residuum by passing it through heated chambers or by other means of drying, whereby we evaporate it and deodorize it, and we then form the dried mass into cakes, blocks, or pieces by means of pressure.

In performing our Invention the following improved apparatus may
35 be adopted for drying the material :—After separating the solid from the

M. & O. F. Anketell's Impts. in Manufacturing Manure and Fuel, &c.

liquid portions of the sewage or fecal or excremental matter we pass the former, that is to say, the liquid portions, through revolving or vibrating tubes, cylinders, chambers, or vessels carried through furnaces or drying rooms, the ends of such tubes, vessels, or chambers or of the series of tubes, chambers, or vessels being outside the furnace or 5 drying room so that the material may be readily fed into the same and discharged therefrom. The tubes or chambers, which are supported in a framework, are arranged in a series close together so that the material under treatment may pass from one such tube to the next succeeding, and so on, the tubes or chambers being inclined or provided with a feed 10 screw or other ordinary feed apparatus so that the fecal or excremental material may pass readily from one tube or chamber to the next, and so on until it is finally delivered in a sufficiently dried, evaporated, and deodorized condition to an ordinary compressing apparatus, which cuts, stamps, moulds, rams, or presses the material into the shapes required 15 (cakes, blocks, or other portable forms). The material can be crushed and pulverised, and it can also be dissolved in liquid or reduced to a liquid condition. The vessels or chambers may be of trough shape. The revolving motion is imparted to the tubes by ordinary gearing driven by a steam engine or other prime motor, or a vibrating motion 20 may be imparted by cams on a shaft driven by a steam engine or other motor.

We wish it to be understood that we do not restrict ourselves to the means or apparatus above described for drying the material in carrying out the Invention. 25

Having now described the nature of the said Invention, and in what manner the same may be performed, we declare that we claim,—

First. Treating sewage or excremental or fecal matter for the production of manure and fuel by first separating the liquid from the solid portions thereof, then drying and evaporating the solid residuum, and 30 next subjecting it to pressure, substantially as described.

Second. The arrangement and combination of apparatus herein-before described in which a series of revolving or vibrating tubes, cylinders, chambers, or vessels are placed in furnaces or drying chambers and are

M. & O. F. Anketell's Impts. in Manufacturing Manure and Fuel, &c.

inclined or provided with feed apparatus, substantially in the manner and for the purpose described.

5 In witness whereof, I, the said Oliver Frederick Anketell, for myself and on behalf of the said Maxwell Anketell, have hereunto set my hand and seal, this Twenty-fifth day of July, in the year of our Lord One thousand eight hundred and seventy.

O. F. ANKETELL. (L.S.)

Witness,

10 E. DE PASS,
68, Fleet Street,
London.

LONDON :

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Printers to the Queen's most Excellent Majesty. 1870.

inclined or provided with feed apparatus, substantially in the manner and for the purpose described.

In witness whereof, I the said Oliver Frederick Anketell, do myself and on behalf of the said Maxwell Anketell, have hereunto set my hand and seal, this Twenty-fifth day of July, in the year of our Lord One thousand eight hundred and seventy.

O. F. ANKETELL (s.s.)

Witness

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68, Fleet Street,
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