

Specification of Charles Niellon : manufacture of manure from sewage matters.

Contributors

Niellon, Charles.

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A.D. 1858, 30th JANUARY. N° 171.

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

- OF

CHARLES NIELLON.

MANUFACTURE OF MANURE FROM
SEWAGE MATTERS.

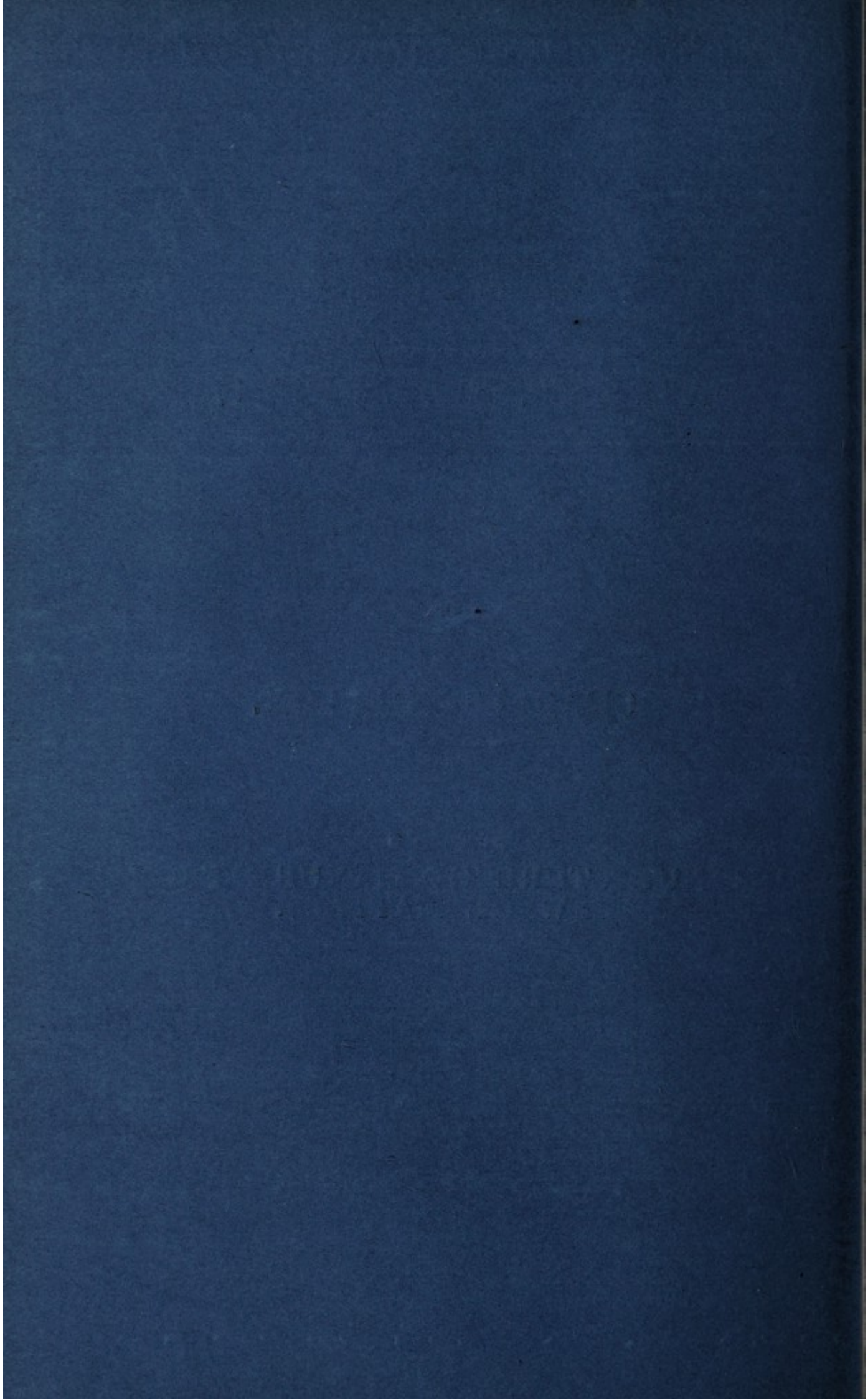
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A.D. 1858, 30th JANUARY. N^o 171.

Manufacture of Manure from Sewage Matters.

(This Invention received Provisional Protection, but notice to proceed with the application for Letters Patent was not given within the time prescribed by the Act.)

PROVISIONAL SPECIFICATION left by Charles Niellon at the Office of the Commissioners of Patents, with his Petition, on the 30th January 1858.

I, CHARLES NIELLON, of 50, Lime Street, in the City of London, do hereby
5 declare the nature of the Invention for "**IMPROVEMENTS IN THE MANUFACTURE OF MANURE FROM SEWAGE WATERS,**" to be as follows:—

This Invention has for its object improvements in the manufacture of manure from sewage waters. For these purposes the waters coming from sewers are conducted into a reservoir, where they are mixed with matters
10 such as are hereafter mentioned, which cause a precipitation to take place in such reservoir. The waters are then filtered through a succession of upright filters, consisting of vegetable matters, such as straw, heath, briars, reeds, twigs, or other cheap vegetable substances, which are cut into lengths of about six inches, and the same are enclosed by preference between wire or
15 other upright fences which are arranged in a convenient manner to admit of being charged with and discharged of the vegetable matters employed in making up the several filters through which the waters filter before they arrive at the discharge outlet, which has a suitable sluice or valve to regulate the quantity flowing out in a given time, and the inlet from the sewers to the
20 reservoir is also provided with a sluice or valve to regulate and shut off the incoming of the sewage waters. The reservoir is also provided with gates and

Niellon's Improvements in the Manufacture of Manure from Sewage Waters.

openings to admit of the settled matters therein being removed. The following are the means of preparing matters to be used for precipitating the sewage matters which are contained in the sewage waters :—Bricks or lumps of river mud are moulded and dried, and a furnace or upright hollow structure is formed of such dried bricks without cement or mortar being used between the 5 bricks. This furnace is filled up with a quantity of cuttings of wood, then some coals and peat, then tanners refuse bark, with or without sawdust, or other vegetable matter. These materials are ignited and allowed to burn for a time, when the furnace is demolished, and the bricks composing it are broken down into powder and mixed with the ashes remaining from the burned 10 contents. The products are also mixed with plaster of Paris, unslaked lime, fine coal ashes, soot, wood ashes, phosphate of lime, and sulphate of soda. This compound being intimately mixed, and in a state of powder, is applied to the sewage waters and mixed therewith, as the same come into the reservoir from the sewers. The precipitated matters are to be removed from time to 15 time, placed in heaps, and allowed to ferment, and such fermentation is induced and aided by the employment of a ferment produced by combining with the waters which drain from the precipitated matters, barley meal, also unground barley, yeast, fresh urine, and pigeon's, fowl's, rabbit, or sheep's dung, or a mixture thereof. When the manure has been properly fermented, it is ready 20 for use, or to be packed away and stored ready for use.

LONDON :

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Printers to the Queen's most Excellent Majesty. 1858.