

Specification of Paul d'Angely : privies, urinals, &c.; : also the manufacture of manure.

Contributors

Angely, Paul d'

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A.D, 1850 N^o 13,097.

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

OF

PAUL D'ANGELY.

**PRIVIES, URINALS, &c.; ALSO THE
MANUFACTURE OF MANURE.**

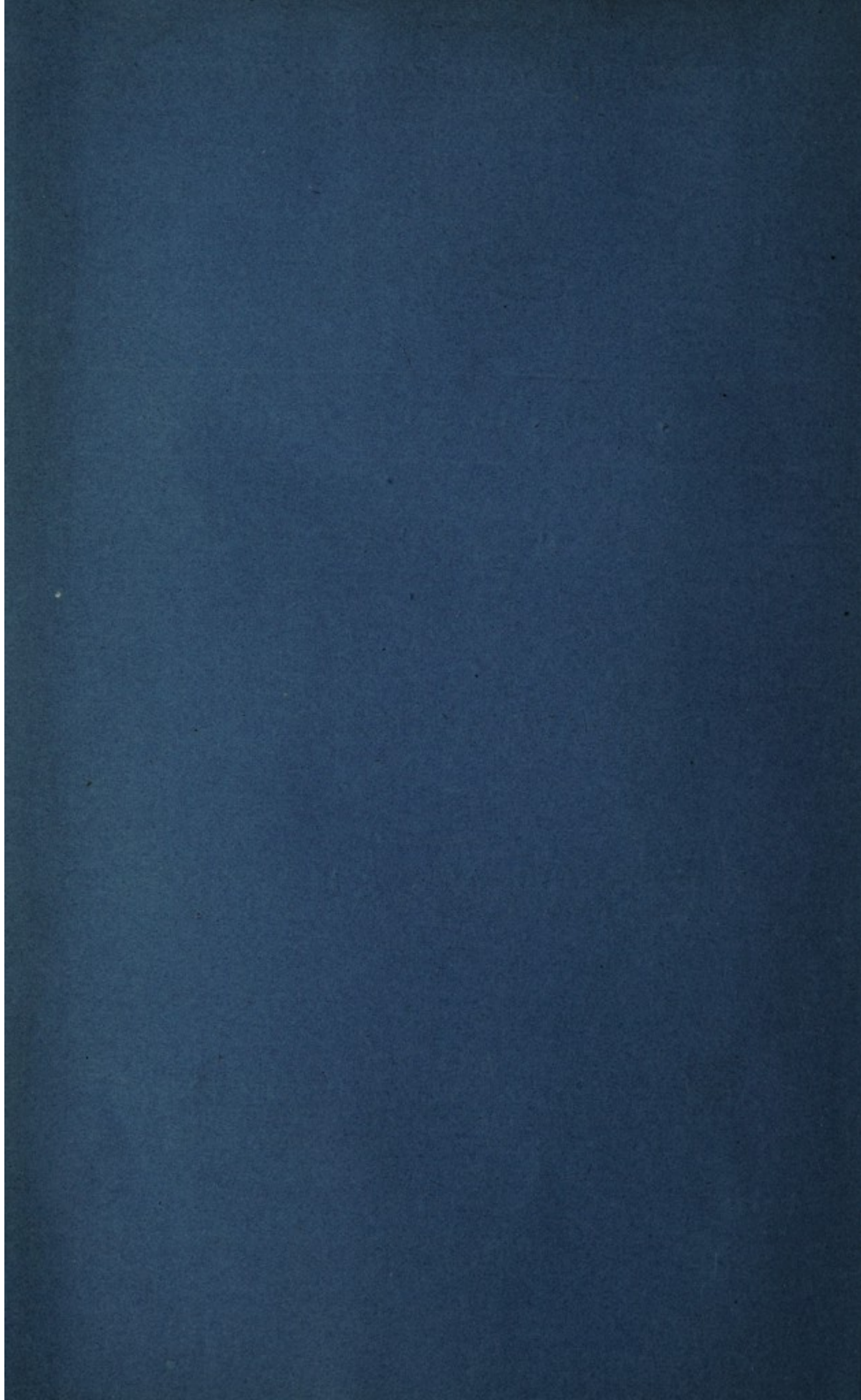
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1855.





A.D. 1850 N° 13,097.

Privies, Urinals, &c.; also the Manufacture of Manure.

D'ANGELY'S SPECIFICATION.

TO ALL TO WHOM THESE PRESENTS SHALL COME, I, PAUL D'ANGELY, of Paris, in the Republic of France, Gentleman, send greeting.

WHEREAS Her present most Excellent Majesty Queen Victoria, by Her Royal Letters Patent under the Great Seal of the United Kingdom of Great Britain and Ireland, bearing date at Westminster, the Fourth day of June, One thousand eight hundred and fifty, in the thirteenth year of Her reign, did, for Herself, Her heirs and successors, give and grant unto me, the said Paul d'Angely, my eñors, adñiors, and assigns, Her especial license, full power, sole privilege and authority, that I, the said Paul d'Angely, my eñors, adñiors, and assigns, or such others as I, the said Paul d'Angely, my eñors, adñiors, or assigns, should at any time agree with, and no others, from time to time and at all times during the term of years therein expressed, should and lawfully might make, use, exercise, and vend, within England, Wales, and the Town of Berwick-upon-Tweed, and in the Islands of Guernsey, Jersey, Alderney, Sark, and Man, and also in all Her said Majesty's Colonies and Plantations abroad, my Invention of "**CERTAIN IMPROVEMENTS IN THE CONSTRUCTION OF PRIVIES AND URINALS, AND IN APPARATUS AND MACHINERY FOR CLEANSING PRIVIES, CESSPOOLS, AND OTHER PLACES, AND IN DEODORISING THE MATTER EXTRACTED THEREFROM, AND RENDERING IT AVAILABLE FOR AGRICULTURAL PURPOSES;**" in which said Letters Patent is contained a proviso that I, the said Paul d'Angely, shall cause a particular description of the nature of my said Invention, and in what manner the same is to be performed, by an instrument in writing under my hand and seal, to be enrolled in Her said Majesty's High Court of Chancery, within six

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calendar months next and immediately after the date of the said in part recited Letters Patent, as in and by the same, reference being thereunto had, will more fully and at large appear.

NOW KNOW YE, that in compliance with the said proviso, I, the said Paul d'Angely, do hereby declare that the nature of my said Invention, and the 5 manner in which the same is to be performed, are fully described and ascertained in and by the following statement thereof, reference being had to the Drawing hereunto annexed, and to the figures and letters marked thereon (that is to say):—

The principal end of my Invention is to obtain the deodorisation of every 10 species of excreta, fæcal matter, or urine at the moment when it falls from the human body. This system is applicable only to privies and urinals as ordinarily constructed, and therefore it does not embrace water closets or other improved conveniences within dwelling houses.

To obtain the result proposed with respect to privies, I make use of a box of 15 wood or iron, or other receptacle, placed beneath the seat, in communication with a glazed earthenware basin of a conical shape, as shewn on the plan Number 1, the basin being there represented by the letters A, B, and the box or receptacle by the letter C; the box or receptacle to be constructed, so far as its locality will permit, to contain from twenty-five to fifty gallons of matter. 20 This box C is furnished with handles to assist in its removal when full, there being a lid (marked D) of galvanized iron or zinc ready to close hermetically the orifice of the point of junction between the basin A, B, and the box C. Before the box C is placed beneath the privy it will contain deodorising fluid in the proportion of seven and a half per centum according to the size of 25 the box.

With respect to urinals, I propose to construct them in a concave form, as shewn on the plan Number 2, and marked A, B; the upper part A, to be of brick or stone, the lower part to be of glazed earthenware. Within this lower part I propose to place a glazed earthenware basin C, covered externally with 30 galvanized iron or zinc, communicating by means of a tube D, with a cemented brick reservoir E, which should contain the like quantity of deodorising fluid as in the case of privies. Attached to one side of the reservoir E, and in communication with it, is a glazed earthenware tube F, of a diameter of from two to three inches, and of a length proportionate to the urinal. This tube F 35 entering the reservoir, will serve to shew when it is full, in which case the matter may be emptied by means of a syphon. A lid of galvanized iron G, closes the top of the tube F, and is locked, except when it is desirable to ascertain the contents of the reservoir. I would have the lower part (B) of the

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concavity of the urinal of glazed earthenware, so as to prevent the accumulation of ammonia, which might be the case on stone or brick.

With respect to cesspools I would have them formed of brick or stone cemented, or of glazed earthenware, within which I should introduce my deodorising fluid in the same proportion as mentioned with respect to privies and urinals, and in removing the matter from these cesspools I should make use of a wooden cask girt with iron, calculated to contain about five hundred and twenty-five gallons, and to be filled by means of an air-pump. At the top of the cask would be an indicator, by means of which it might be ascertained when the cask was full, see Plan Number 3. To get the cask when full upon a waggon or other vehicle, and to facilitate the emptying of it when arrived at its destination I would use an inclined plane (Number 4). In order to empty the cask I would have a galvanized iron lid A (Plan Number 3) fitting hermetically when closed, but which, when open, should allow the matter to escape.

The deodorising fluid is composed of fresh bark, rue, or wild mint, sulphate of iron, and pyrolignite of iron in the following proportions:—For every two hundred pounds of bark I should take forty pounds of green rue or wild mint, or, when dried, eighty pounds; two hundred pounds of sulphate of iron; and one hundred and sixty pounds of pyrolignite of iron. In order to prepare the fluid I should have a pan calculated to contain about two hundred gallons, in which I should place one hundred and sixty-five gallons of pure soft water, which I should boil. Whilst boiling I should put in the bark, which should remain until completely macerated. In another pan, of the capacity of about one hundred and ten gallons, I should place eighty-five gallons of pure soft water, in which, when boiling, I should place the rue or wild mint until macerated; I should then clear the infusions of bark and of rue or wild mint, and, when cleared, mix the two liquids in a pan large enough to contain three hundred gallons; I should then introduce the sulphate of iron and the pyrolignite of iron, and heat the mixture sufficiently to produce complete solution. This done, I should add sufficient pure water to make up the quantity lost by boiling, so as to have the amount of two hundred and fifty gallons. To prove the indispensable strength of the fluid when made, the specific gravity ought to present, according to Baume's scale, not less than $15^{\circ} 1'116$ or more than $16^{\circ} 1'125$.

The effect of the deodorising fluid will be to prevent any unpleasant odour, by its power of concentrating the whole of the ammonia, which would otherwise be dissipated from the fæcal matter and urine.

In order to convert the fæcal matter into manure it must be dried in a

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chamber heated to from 70° to 90° Fahrenheit. One half of the floor of this chamber should be composed of glazed earthenware tiles of a prismatic form (see Plan Number 5), there being between the tiles spaces of about three quarters of an inch each. The fæcal matter should be brought into the chamber and deposited upon the plain portion of the floor until nearly dry, and 5 then placed upon the tiles, which, each sloping, will allow the matter, as it becomes perfectly dry, to fall into the room beneath. The fæcal matter being reduced to powder, should then be mixed with dried or burnt peat in powder, or with dried beast's blood also in powder, in the proportions of two thirds of fæcal matter to one third of peat or blood. The manure will then be made 10 and ready for use. If kept it should be in a place not too dry.

In witness whereof, I, the said Paul d'Angely, have hereunto set my hand and seal, this Second day of December, in the year of our Lord One thousand eight hundred and fifty.

PAUL (L.S.) D'ANGELY. 15

RICHARDSON, Extra.

AND BE IT REMEMBERED, that on the Second day of December, in the year of our Lord 1850, the aforesaid Paul d'Angely, came before our said Lady the Queen in Her Chancery, and acknowledged the Specification aforesaid, and all and every thing therein contained and specified, in form above written. And also the Specification aforesaid was stamped according 20 to the tenor of the Statute made for that purpose.

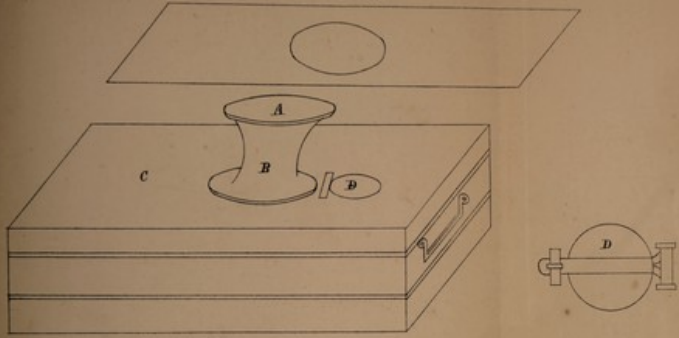
Enrolled the Fourth day of December, in the year of our Lord One thousand eight hundred and fifty.

LONDON:

Printed by GEORGE EDWARD EYRE and WILLIAM SPOTTISWOODE,
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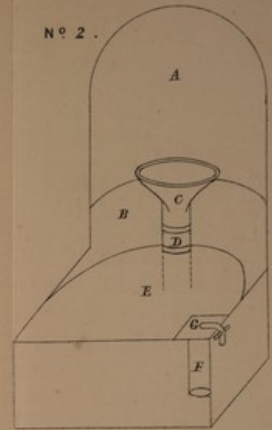
A.D. 1850. JUNE 4. N° 13,097.
D'ANGELY'S SPECIFICATION.

N° 1.

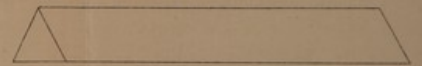


(1 SHEET.)

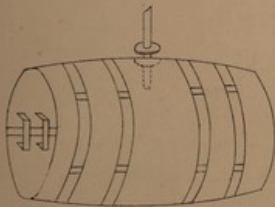
N° 2.



Section of Prismatic Tile.



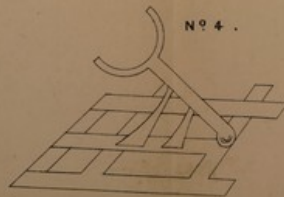
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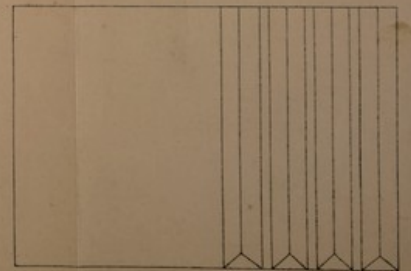
N° 3.



N° 4.



N° 5.



Drawn on Stone by Malby & Sons.

The encolled drawing is partly colored.

