

**Specification of Joseph Marino : inodorous closet for the separation of excrement to be used as manure.**

**Contributors**

Marino, Joseph.

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A.D. 1859, 29th. JANUARY. N<sup>o</sup> 267.

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

OF

JOSEPH MARINO.

INODOROUS CLOSET FOR THE SEPARATION  
OF EXCREMENT TO BE USED AS MANURE.

LONDON:

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1859.









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A.D. 1859, 29th JANUARY. N° 267.

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**Inodorous Closet for the Separation of Excrement to be used as Manure.**

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**LETTERS PATENT** to Joseph Marino, of the City of Stockholm, in the Kingdom of Sweden, Mechanician, for the Invention of "**AN INODOROUS CLOSET OR COMMUNE.**"

Sealed the 16th April 1859, and dated the 29th January 1859.

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**PROVISIONAL SPECIFICATION** left by the said Joseph Marino at the Office of the Commissioners of Patents, with his Petition, on the 29th January 1859.

I, **JOSEPH MARINO**, of the City of Stockholm, in the Kingdom of Sweden,  
5 Mechanician, do hereby declare the nature of the said Invention for "**AN INODOROUS CLOSET OR COMMUNE,**" to be as follows:—

This Invention relates to a novel arrangement of inodorous closet, by the use of which the liquid and solid excrement from the human body may be separated and retained for service as a manure, instead of being discharged  
10 into the common sewer and lost.

The closet, although susceptible of many modifications, may be described as consisting of a box fitted with a lid that shuts down upon an open seat. Under this seat is placed a pan or other detached vessel for receiving the solid excrement, and a little in advance of this is an open funnel for receiving the  
15 urine and conducting it away to another vessel.

The funnel may be detached from the tube which leads to the urine pan, or



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it may form the lip of the urine pan, which in this instance will be made sufficiently large to receive a vessel for the soil or solid excrement. The vessels may be withdrawn from the box either by first removing the open seat and lifting them out, or doors may be made in the side of the box to permit of their removal when required. When this closet is fitted in a dwelling, it may be desirable to lead an air pipe from the box to an adjacent flue, and to cause a draft through the pipe by means of a gas jet or otherwise.

In hotels and other large buildings where closets are required at different floors, it may be desirable, instead of having separate vessels for each, which will require frequent removal, to connect such closets by means of vertical soil pipes with general pans placed at the basement, and by means of branch pipes leading to an air flue to draw off all the noxious gases from the soil pipes.

**SPECIFICATION** in pursuance of the conditions of the Letters Patent, filed by the said Joseph Marino in the Great Seal Patent Office on the 15 29th July 1859.

**TO ALL TO WHOM THESE PRESENTS SHALL COME, I, JOSEPH MARINO,** of the City of Stockholm, in the Kingdom of Sweden, Mechanician, send greeting.

**WHEREAS** Her most Excellent Majesty Queen Victoria, by Her Letters Patent, bearing date the Twenty-ninth day of January, in the year of our Lord One thousand eight hundred and fifty-nine, in the twenty-second year of Her reign, did, for Herself, Her heirs and successors, give and grant unto me, the said Joseph Marino, Her special license that I, the said Joseph Marino, my executors, administrators, and assigns, or such others as I, the said Joseph Marino, my 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 Great Britain and Ireland, the Channel Islands, and Isle of Man, an Invention for "**AN INODOROUS CLOSET OR COMMUNE,**" upon the condition (amongst others) that I, the said Joseph Marino, by an instrument in writing under my hand and seal, 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 immediately after the date of the said Letters Patent.



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NOW KNOW YE, that I, the said Joseph Marino, do hereby declare the nature of my said Invention, and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement, reference being had to the Drawings hereunto annexed, and to the 5 letters and figures marked thereon (that is to say):—

This Invention relates to the use of a novel arrangement of inodorous closet or commode, whereby the liquid and solid excrement from the human body may be separated and retained for service as a manure, instead of being discharged into the common sewer and lost.

10 The closet, although susceptible of many modifications, may be described as consisting of a box fitted with a lid that shuts down upon an open seat. Under this seat is placed a pan or other detached vessel for receiving the solid excrement, and a little in advance of this is an open funnel for receiving the urine and conducting it away to another vessel.

15 In Sheet I. of the accompanying Drawings, Fig. 1 is the side elevation, and Fig. 2 a vertical section of a closet intended to be placed out of doors; Fig. 3 is a top view of the closet with the lid or cover opened; and Fig. 4 is a top view with the seat and cover removed. It consists of a conical case or vessel *a*, in which the soil pan *b*, also of conical form, is placed. These vessels 20 may be made either of wood, metal, earthenware, or any other suitable material. At the upper edge, and on the inside of the outer case, is placed an open funnel *c* for receiving the urine; this funnel, which is termed the "divider," is made of metal or earthenware, and has its spout inserted in a pipe *d*, which leads down to the urinal. The "divider" is supported in position so that it may 25 be readily removed when the pan *b* is required to be emptied or cleaned. Fitted to the top of the outer vessel or case *a* is the seat *e*, and to this seat is hinged the lid *f*, which when opened rests against the support *g*.

The pipe *d* conducts the fluid from the "divider" into the urinal *h*, which is placed under the footstep *l*. The urinal is provided with a funnel shaped 30 cover *i*, the pipe *k* of which descends (as shewn in the Drawing) to within about half an inch of the bottom of the vessel.

In order to allow the foul air to escape, a draught pipe *m* is fitted to the upper part of the case *a*, to lead off the foul air into a chimney or into the open air at a proper elevation. On the opposite side, and at the bottom of 35 said outer vessel, is a hole of the same diameter as the draught pipe, in order to create as thorough a draught as possible, and to increase this when necessary an oil lamp or gas burner *n* may be placed beneath and in an aperture of the pipe *m*.

Figures 5 and 6 shew in side view and vertical section a "bed-room closet,"



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and Fig. 7 is a top view thereof, the lid being removed. The outer case or vessel is here divided into two compartments, the upper one receiving the pan for the excrements, and the lower one containing the urinal. The letters of reference used in describing the first arrangement refer to like parts in these and all subsequently noticed Figures. In the back of the outer case *a* hinged 5 doors *o, o*, are provided, by opening which the pans *b* and *h* may be readily withdrawn for the purpose of being emptied.

Figures 8 to 18 are varieties of the same construction adapted to meet different requirements. Thus, for example, the simplest and most economical form of which the Invention is susceptible is shewn at Figures 11, 12, 13, and 14. In this 10 arrangement the commode is constructed with an outer case *a*, which forms the urinal, and encloses the soil pan *b*, which is suspended therein. The outer case is formed with a lip *c* in front, which acts the part of the funnel or divider in the other arrangements, and leads the urine to the lower compartment of the commode. 15

Fig. 15 shews a mode of fitting to a commode a support for the back and arms of an invalid. This is effected by inserting bent rods *q*, which project downwards from the rest, into lugs *p*, formed on the sides of the outer case *a*.

Figures 19, 20, and 21 shew in side view, section, and top view, a "divider," which is to be fastened to the outer case or vessel *a* by hooks or in any 20 other way.

By the use of this construction of closet the human excrement will be saved in the most available form for agricultural purposes. In the country the urinals may be emptied one or more times a day, and their contents mixed with compost, and in the towns persons may be appointed for collecting the 25 urine daily, and preparing it for farm use. As the more solid excrement will, by the thorough draught established through the closet, in a very short time become dried, and thereby reduced to a very small volume, the soil pan will less frequently require to be emptied. This dried excrement will possess a commercial value comparable to the best guano. 30

Experience having taught that it is the mixture of the urine and the abdominal evacuation that generate the fermentation thereof, and produce the exhalations the most obnoxious and injurious to health, the mode of separating these different matters, and the thorough ventilation established in these closets, cannot fail to recommend them highly to the use of the public, the 35 more so as the absence of moisture will make the use of peat, charcoal, or other matters now employed for binding the ammoniacal exhalations superfluous, or when used effective in less proportions.

In hotels, barracks, lodging houses, &c., &c., where a great number of



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inmates renders it necessary to have closets on each floor, it will be proper to place them above each other so that each one in the series will communicate with one common pipe or conduit, the conduit widening for each floor so as to allow the soil to fall with facility into a common reservoir at the basement of  
5 the building.

In Sheet II., Fig. 1 is a longitudinal elevation of the means whereby I connect the closets with a common receptacle; and Fig. 2 is another longitudinal section taken at right angles to Fig. 1; Fig. 3 is a sectional plan taken in the line 1, 2; and Fig. 4 is a sectional plan taken in the line 3, 4, of  
10 Figures 1 and 2. The reservoirs are closed by a lid made in two parts so as to close round the conduit or pipe; a small pipe conducts the urine from the "divider" in each closet to a general conduit *n* to the general urinal *o*, also situate at the basement.

Behind the closets on each floor there is a conduit or pipe leading into a  
15 general draught pipe or air chimney made in the wall, by which a draught or ventilation is produced. The whole of this arrangement may easily be understood by referring to the plans, in which *a, a*, represent the reservoirs for the night soil or excrements; *b, b*, the closets; *c, c*, the front sides of the general conduit sloping a little for each successive floor; *d*, the lower end of the  
20 conduit; *e*, the cover of the reservoir in two parts; *f, f*, the air conduit or chimney; *g, g*, the air conduits from each floor to the general air shaft; *h, h, i, i*, the sides of the general conduit, which are held together by iron hoops and bolts *k, l*, and *m*; *n* is the general urine conduit pipe, and *o* the common urinal; *q, q*, are the pipes for leading the urine from the several  
25 closets, and *s* the spout from the urine reservoir; *t, t*, are doors for gaining access to the reservoirs, and *u, u*, is a floor easily taken up so as to facilitate the removing of the reservoirs; *y, y*, is a reservoir, which may be employed for collecting the sweepings and refuse from the kitchen; *a'*, the lid or cover over the reservoir, and *b'* an air pipe from this reservoir leading into a separate  
30 air chimney *c'*.

It is understood that the proportions and arrangements of all these parts may be greatly varied, and also that they may be made of wood, china, earthenware, slate, metal, gutta percha, or india-rubber, as it may be found most expedient from climatical, mercantile, or other reasons.

35 Having now set forth the nature of my Invention of "An Inodorous Closet or Commode," and explained the manner of carrying the same into effect, I wish it to be understood that under the above in part recited Letters Patent I claim the means herein described for effecting the separation of the liquid and solid portions of human excrement, and the withdrawal from closets or



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commodes of the gases arising therefrom, whether the Invention be applied to single closets or commodes, or to a series discharging into receptacles common to all.

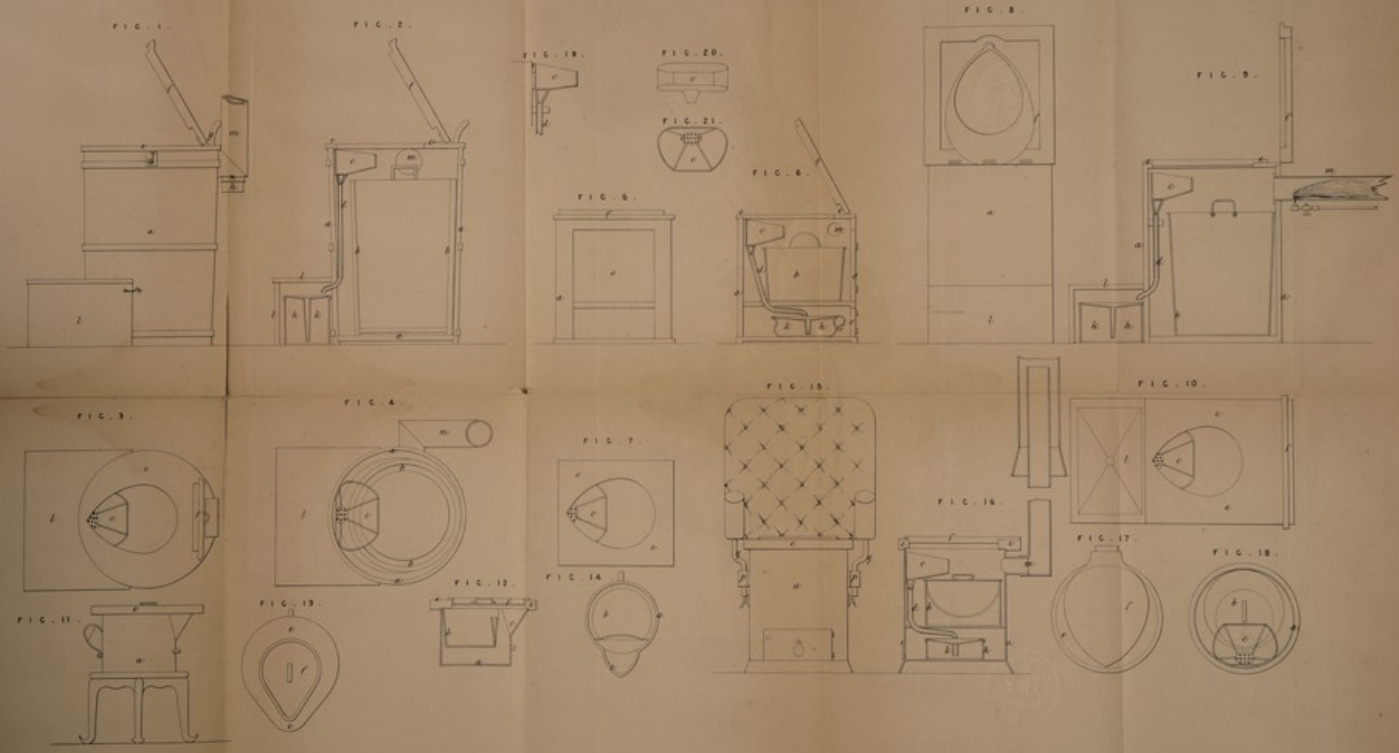
In witness whereof, I, the said Joseph Marino, have hereunto set my hand and seal, the Thirtieth day of June, in the year of our Lord One thousand eight hundred and fifty-nine.

JOSEPH MARINO. (L.S.)

LONDON:

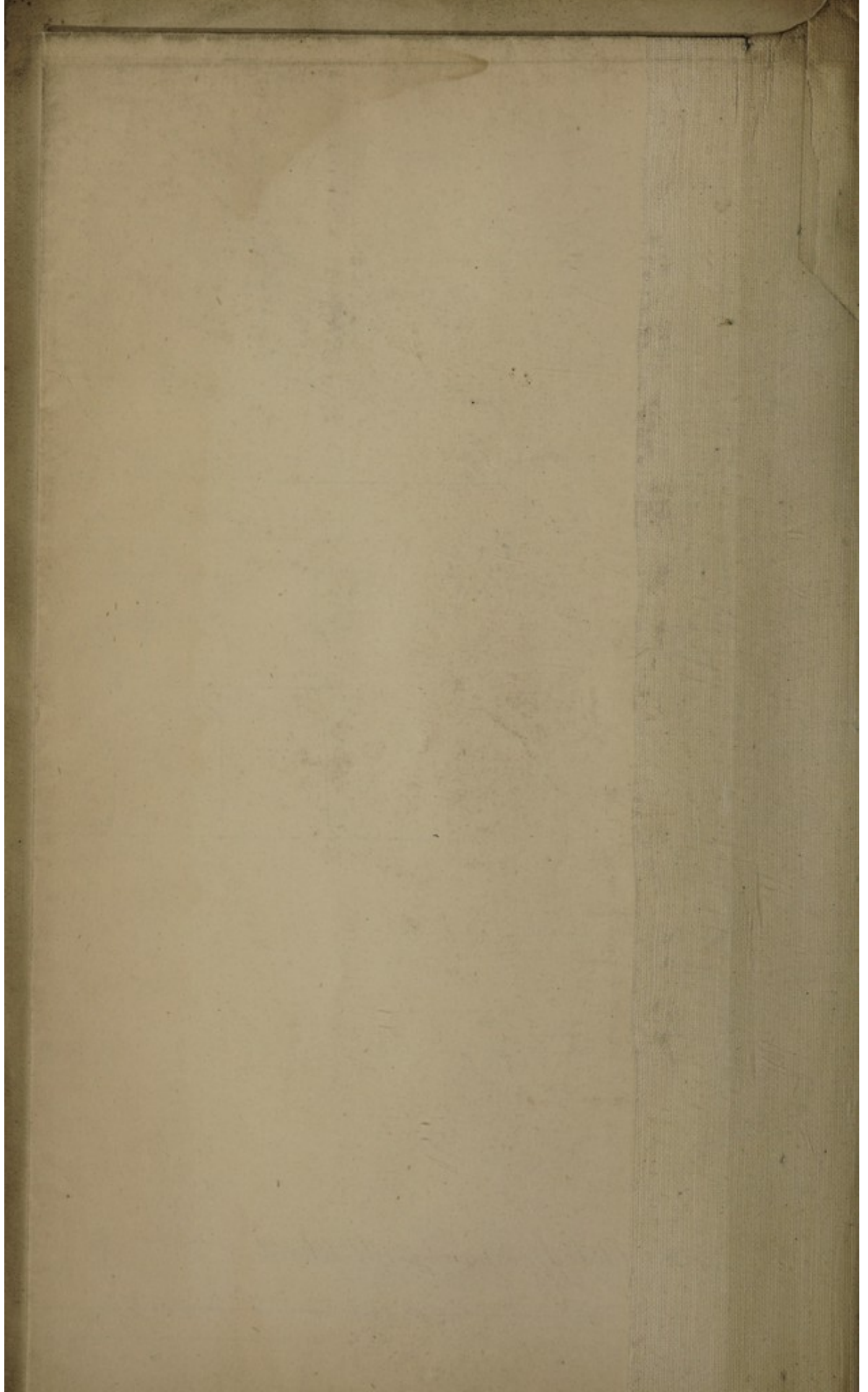
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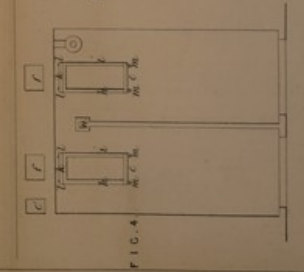
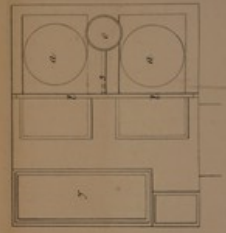
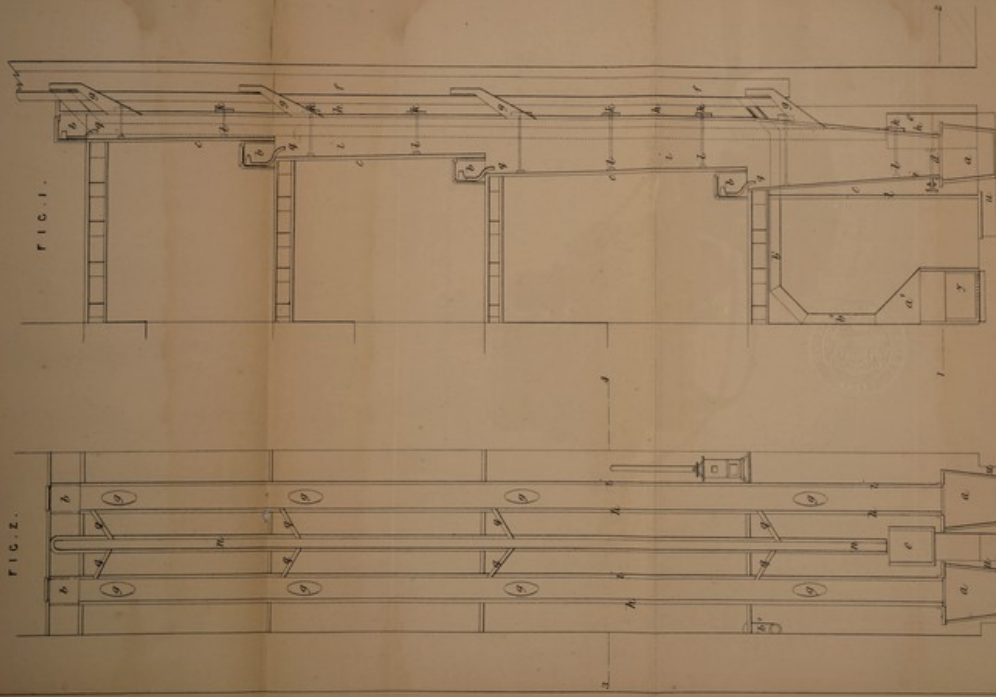


The first drawing is partly colored.









The steel drawing is colored.

Drawn on Stone by Philip A. Egan



