

Specification of Thomas Joyce : applying prepared fuel for heating culinary and other apparatus.

Contributors

Joyce, Thomas.

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29
A.D. 1838 N° 7593.

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

OF

THOMAS JOYCE.

—
**APPLYING PREPARED FUEL FOR HEATING
CULINARY AND OTHER APPARATUS.**
—

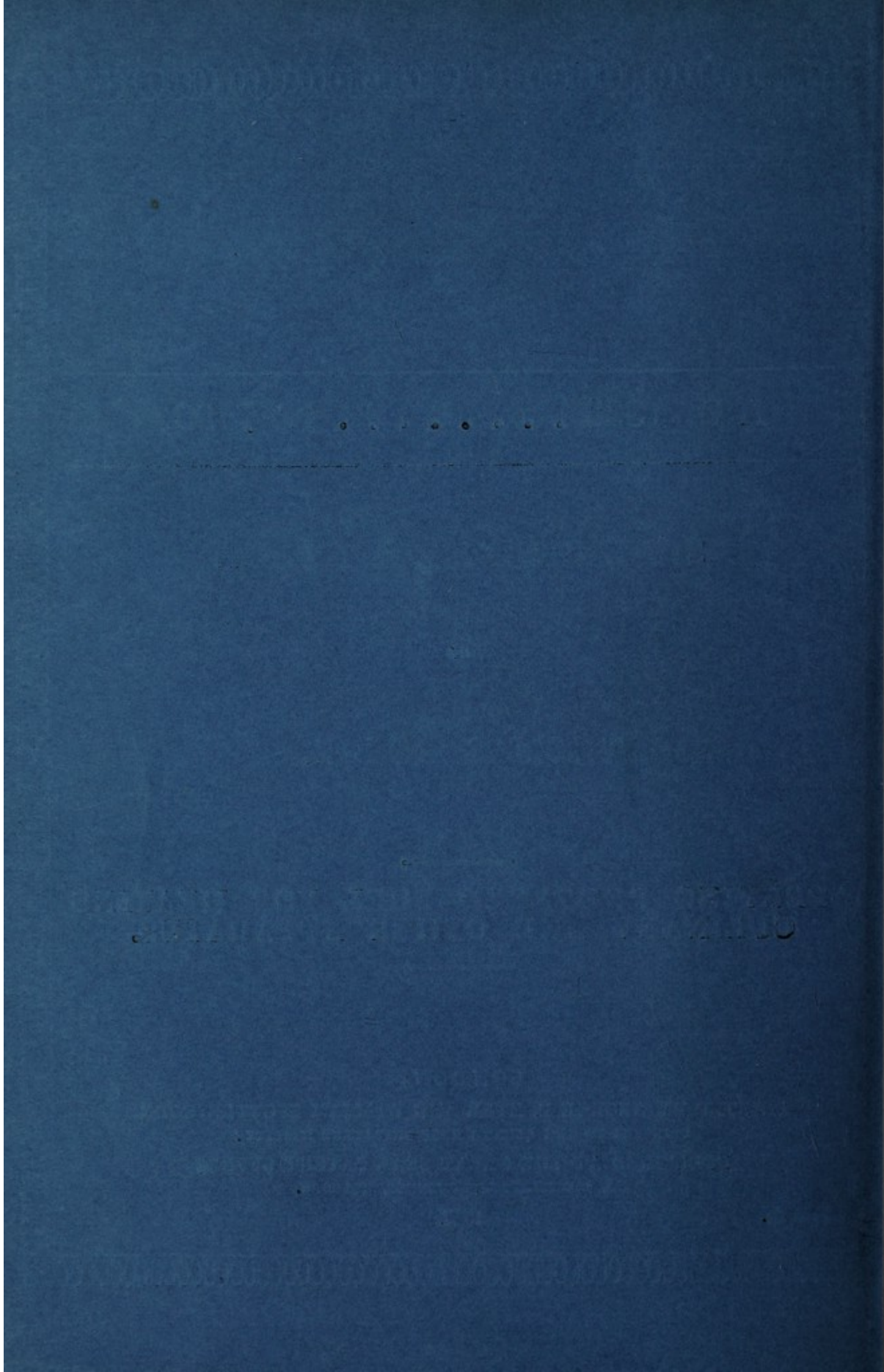
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A.D. 1838 N^o 7593.

**Applying Prepared Fuel for Heating Culinary and
other Apparatus.**

JOYCE'S SPECIFICATION.

TO ALL TO WHOM THESE PRESENTS SHALL COME, I, THOMAS JOYCE, of Camberwell New Road, in the County of Surrey, Gardener, send greeting.

WHEREAS Her present most Excellent Majesty Queen Victoria, by Her
5 Royal Letters Patent under the Great Seal of Great Britain, bearing date at Westminster, the Fifteenth day of March, in the First year of Her reign, and in the year of our Lord One thousand eight hundred and thirty-eight, did, for Herself, Her heirs and successors, give and grant unto me, the said Thomas Joyce, Her especial licence, full power, sole privilege and authority, that I,
10 the said Thomas Joyce, my executors, administrators, and assigns, and such others as I, the said Thomas Joyce, my executors, administrators, 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 mentioned, should and lawfully might make, use, exercise, and vend, within England, Wales, and the Town of
15 Berwick-upon-Tweed, and Her Majesty's Colonies and Plantations abroad, my Invention of "**CERTAIN IMPROVED MODES OF AND APPARATUS FOR APPLYING PREPARED FUEL TO VARIOUS CULINARY AND DOMESTIC PURPOSES;**" in which said Letters Patent is contained a proviso obliging me, the said Thomas Joyce, by an Instrument in writing under my hand and seal, particularly to describe

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and ascertain the nature of my said Invention, and the manner in which the same is to be performed, and to cause the same to be inrolled in Her Majesty's High Court of Chancery within six 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 5 large appear.

NOW KNOW YE, that in compliance with the said proviso, I, the said Thomas Joyce, do hereby declare that the nature of my said Invention, and the manner in which the same is to be performed, are particularly described and ascertained in and by the following description thereof, reference being 10 had to the Drawings hereunto annexed, and to the letters and figures marked thereon, that is to say :—

Whereas Her present most Excellent Majesty Queen Victoria was graciously pleased to grant to me, the said Thomas Joyce, Her Royal Letters Patent, bearing date at Westminster, the Sixteenth day of December, in the 15 year of our Lord One thousand eight hundred and thirty-seven, for my Invention of "Improved Apparatus for Heating Churches, Warehouses, Shops, Factories, Hothouses, Carriages, and other places requiring Artificial Heat, and Improved Fuel to be used therewith;" now my present improvements consist in certain modes of and apparatus for applying the said prepared fuel 20 to certain culinary and domestic purposes not contemplated in my former Patent, viz^t, plate warmers, or chambers or closets to keep plates, dishes, and viands hot, tea and coffee urns, and kettles, intended either to boil liquids contained therein, or to keep them at a desired temperature, wine or beer warmers, or urns used for heating or warming such fluids; also ironing 25 stoves, and other heating apparatus for laundry use, such as fluting or frilling irons and common flat irons, likewise hot closets for airing and drying linen and other articles; and lastly, apparatus for heating the fluid contained in baths, coppers, and other vessels, to which the external application of fire would be inconvenient; all of which improved apparatus are susceptible of 30 slight modifications. I will therefore proceed to describe such arrangements as I have found to answer for the various applications and purposes for which they are intended, without confining myself to the precise forms thereof, referring to the accompanying Drawings to illustrate the same.

Fig. 1 of the accompanying Drawings is an elevation of one construction of 35 a cylindrically shaped plate warmer, one of the doors being shewn open to expose the interior. *a, a*, is the outer casing of tin or plate metal, which may be encased or covered with wood to prevent radiation of heat, if thought desirable. It is supported on legs to allow access of air to the under part of

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the stove or chamber *b* containing the fuel, or it may be supplied with air to support combustion from within the apparatus through holes *c, c*, near its bottom. The interior of the plate warmer is furnished with two, three, or more shelves *d, d*, to receive plates, dishes, or viands, the bottom plate *e* also
 5 serving for this purpose. The centre of the apparatus is occupied by the stove or fuel chamber *b*, which may be let into a recess or not, as thought desirable, and the inner edges of the shelves *d* are supported by rods *f, f*, extending from the top to the bottom of the apparatus. *g* is a cap piece or cover applied to an aperture formed in the top plate *h*, and is pierced with
 10 small holes to allow the escape of hot air or vapour arising from the viands or the stove. Through the aperture in this plate the stool can be readily removed to be supplied with fuel or to ignite the same when required. The plate warmer has one or two doors *i*, according to the size of the apparatus, and handles *k*, by which it can be readily carried about. The stove in which the
 15 fuel is consumed is in this instance made portable, and can readily be drawn out of the apparatus by its handle *l*, it being supplied with air at the bottom, and the draft regulated by a governor or sliding valve *m* at its top. The arrangement and construction of the interior of the stove will be clearly seen in some of the herein-after described sectional Figures, and therefore need not
 20 be further explained at present.

Fig. 2 is a front elevation of another plate warmer, which is shaped and formed as an oblong square closet or cupboard with folding doors. The same letters of reference being marked upon this as the foregoing Figure, no further description will be necessary.

25 Fig. 3 is an external representation of a tea or coffee urn, intended either to boil water or coffee, or keep the same at a required temperature. *a, a*, is the outer casing of the urn; the foot or standard *b* is made hollow to admit of the passage of air to support combustion of fuel in the stove *c*; the air passes through apertures *d, d*, in the inverted cone *e* placed at the bottom.
 30 *f* is the exit valve or governor for regulating the degree of draft through the stove, and consequently the combustion of the fuel. In this instance the regulator is placed in the lid or cover of the fuel chamber in a short chimney *h*, which projects through the lid or cover of the urn, and by opening or shutting the apertures of this valve, either by raising or lowering it, or
 35 turning round the knob *i*, the degree of draft will be regulated.

Figure 5 is an external representation of a tea-kettle, the arrangement and method of heating being much like the urn just described. A short description will suffice, the same letters of reference being marked upon corresponding parts as in the latter Figures. In this instance the exit aperture of

Joyce's Improvements in the Application of Prepared Fuel.

the stove or fuel chamber *c* does not enter the lid of the kettle, and from the small dimension of the stove no regulating valve is required, the apertures for the admission of air being such as to allow only of the requisite degree to support the proper combustion of the fuel. The kettle may either be furnished with 3 or 4 legs, or placed upon a separate stand or trivet *k* to allow the air 5 access to the stove.

Fig. 7 is an external representation of an apparatus or urn for quickly heating or warming wine, beer, or other liquors, and at the same time containing a quantity of hot water. Fig. 8 is a section of the same taken vertically. Fig. 9 is a plan view. *a, a*, is the outer casing of the urn or apparatus. 10 *b*, the stove or chamber for the fuel, receiving its supply of air to support combustion through the apertures *c* of the short tube *d* attached to the bottom plate or movable flap or shutter *c*, which is capable of being opened to remove any dust or ashes which may remain after the combustion of the fuel. The top or cover of the stove *f* is supplied with the governor valve *g* to regulate the 15 degree of combustion. *h, i, k*, are three small funnels attached to the top of the urn and supplied with covers. The liquids to be heated are to be poured into these funnels; the one, *h*, is for water, and opens direct into the interior of the casing or chamber *a, a*; the other, *i*, is intended for beer, and is connected with the pipe *l, l*, which is coiled around the stove several times, and is 20 furnished with a cock *m* at its lower end. The funnel *k* is intended for heating wine or other liquids, which are generally required in smaller quantities than beer; it is connected to the pipe *n*, coiled a less number of times round the stove, and is furnished with the cock *o*. The other or water cock *p* opens direct to the water chamber. The apparatus may be supported with any 25 description of feet or standards which will allow of the admission of air to the stove. It will be seen that the combustion of fuel in the chamber will communicate heat to the water in the urn, and that any liquid poured into the funnels *i* or *k* will, in its descent through the pipes *l* or *n*, become heated or warmed, and can be drawn off in this state by their taps or cocks. 30

Fig. 10 is an external representation of one of my improved ironing stoves or apparatus for laundry use, in which both Italian or frilling irons, as well as flat irons, are heated. Fig. 11 is a vertical section of the same. In this instance the ironing apparatus is constructed with a double casing. *a, a*, is the outer casing supported on legs in any convenient manner. *b, b*, is the 35 inner casing stove or fuel chamber, supplied with the inlet and outlet apertures for air, *e* and *f*, as in the former instances. *c, c*, are the Italian or frilling irons, which are of different sizes, and placed so that two or more persons can use them at one time, the irons receiving their heat direct from the stove;

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they are attached either to the inner or outer casing; the latter is supplied with a cover *d*, which may be used or not, as thought necessary. The top of the fuel chamber *g* can be removed to supply the fuel or ignite the same, and has the exit aperture *f* formed in it. This cover also forms a hot plate, upon
 5 which flat irons, as at *h, h*, are to be placed for the purpose of heating them. *i, i*, are handles for carrying the apparatus from one place to another.

Fig. 12 is an external representation of an apparatus which may be considered either culinary or domestic, as it is equally applicable for heating or warming irons for laundry use, or as a hot plate or stove for heating or boiling
 10 the contents of saucepans and stewing or preserving utensils, &c. Fig. 13 is a vertical section, and Fig. 14 a plan view of the same shewing flat irons placed on the hot plate. In this apparatus the object is to keep the ignited fuel as near to the top part or hot plate as possible. This may be effected by properly shaping the bottom of the stove or top or cover of the inlet aperture
 15 for the air. *a, a*, is the casing of the apparatus, which is in the form of an inverted cone, and supported by legs or standards. *b* is its top or cover, supporting the fuel chamber *c*, through which the fresh fuel is supplied, and which may either be attached to the cover or not, as thought desirable. *d* is the aperture for the admission of air to the fuel, which opens into the cone *e*,
 20 having the conical cover *f* placed upon it, the air escaping to the interior of the chamber *a* by holes *g, g*, formed in the cone *e*. After a portion of the fuel has been ignited in the chamber *a*, the remainder is to be placed in the chamber *c, c*. *h* is the cover of the fuel chamber, which can be removed at pleasure, and the draft through the stove regulated by the governor *i*, as before
 25 stated.

Fig. 15 is a sectional Figure of another ironing stove or hot-plate apparatus of the same description, in which the fuel chamber *c* is placed at the end in such a manner as to leave the whole of the hot plate or cover of the chamber *a, a*, to be used for the culinary or domestic purposes above named. The same
 30 letters of reference being marked on corresponding parts to those last described, no further description will be required, the apparatus being supplied with a small exit pipe or tube *k* furnished with a regulator *l* to determine the degree of combustion, the air being admitted thro' holes or apertures at *m*. Fig. 16 is a plan or horizontal view of the same.

35 Fig. 16* is a front view of a hot closet for airing or perfectly drying linen and other articles. It is constructed after the manner of the plate-warming apparatus, Fig. 2, but in this instance the shelves are formed of wires or rods placed across the chamber, upon which the articles may be hung loosely or placed in piles upon them. *a, a*, is the casing of the apparatus; *b*, the stove

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or fuel chamber ; *c*, the rods or wire shelves ; *d*, the doors. It will be evident that this apparatus may be made of any required size, and is applicable to warming or drying various kinds of articles, and as there are no sparks allowed to escape from the fuel, danger of fire is avoided.

Fig. 17 is a side representation of a stove or apparatus intended for heating 5 liquids contained in baths, coppers, or other vessels where the external application of a stove is inconvenient, and is intended to be placed in the water or fluid contained in such vessels, either floating or not, as may be desired. Fig. 18 is a vertical section, Fig. 19 a plan, and Fig. 20 an end view of the same. *a, a*, is the casing or fuel chamber, which is supplied with fuel as 10 required through the aperture or tube *b*, which may be of any length to increase the draft. The bottom of the stove or grating to support the fuel in this instance is formed of hollow tubes *c, c*, open at their ends to the water in the bath, which is allowed to flow through them. *f* is another tube placed in the same manner, and consequently increasing the heating surface. 15 The passage for the air to the stove is formed by the side wings *g, g*, which are open by the ways *h, h*, to the under part of the grating or tubes. In applying this stove to heating fluids contained in a bath or other vessel, the fuel is first to be ignited in the chamber *a, a*, and then placed in the liquid, fuel being added until the same is raised to the required temperature ; the 20 apparatus is intended to be sunk in the fluid, so that the same shall flow over the top plate of the fuel chamber, as shewn by the dotted water line in the Figures.

Having now described and ascertained the nature of my present Invention, and the manner of carrying the same into effect in the several novel or peculiar 25 arrangements and constructions of apparatus applicable to various culinary and domestic purposes, I desire it to be understood that I do not claim as any part of my present Patent the preparation of fuel herein-before named, but I do claim the application of the said prepared fuel to any of the culinary and domestic purposes herein described. 30

And I further claim the improved modes of an apparatus for applying the prepared fuel herein named to the purpose of heating or warming in the various culinary and domestic operations as herein-before set forth and described, which are not contemplated, included, or described in my former Patent before alluded to. 35

In witness whereof, I, the said Thomas Joyce, have hereunto set my hand and seal, this Fifteenth day of September, in the year of our Lord One thousand eight hundred and thirty-eight.

THO^s (L.S.) JOYCE.

Joyce's Improvements in the Application of Prepared Fuel.

AND BE IT REMEMBERED, that on the Fifteenth day of September, in the second year of the reign of Her Majesty Queen Victoria, the said Thomas Joyce came before our said Lady the Queen in Her Chancery, and acknowledged the Instrument aforesaid, and all and every thing therein contained and
5 specified, in form above written. And also the Instrument aforesaid was stamped according to the tenor of the Statute made in the fifty-fifth year of the reign of His late Majesty King George the Third.

LYNCH.

Inrolled the Fifteenth day of September, One thousand eight hundred and thirty-eight.

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And the instrument in the 13th year of the reign of King George the Third

AND HE IT ENACTED, that on the 13th day of October in the second year of the reign of His Majesty George the Third, the said Thomas Love came before our said Lady the Queen in Her Chancery and acknowledged the instrument above and all and every thing that is contained and expressed therein as being his own deed and the instrument above was stamped according to the tenor of the Statute made in the 22nd year of the reign of His Majesty King George the Third.

In the 13th day of September, One thousand eight hundred and thirty-eight.

IN WITNESS WHEREOF, the said Thomas Love has hereunto set his hand and seal at London, the 13th day of September, One thousand eight hundred and thirty-eight.

THOMAS LOVE

And the said instrument was stamped according to the tenor of the Statute made in the 22nd year of the reign of His Majesty King George the Third.

In the 13th day of September, One thousand eight hundred and thirty-eight.

And the said instrument was stamped according to the tenor of the Statute made in the 22nd year of the reign of His Majesty King George the Third.

FIG. 1.

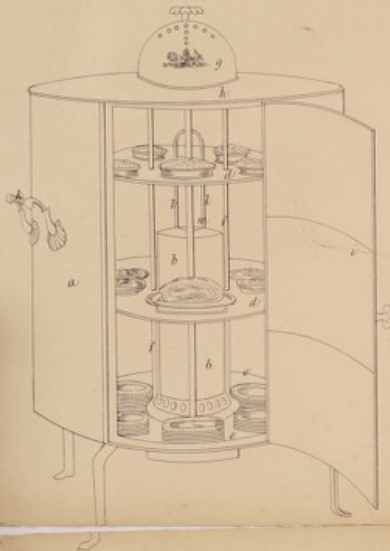
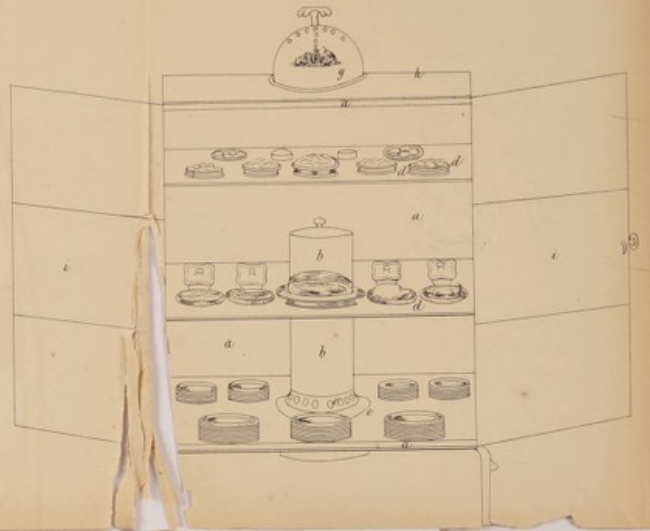


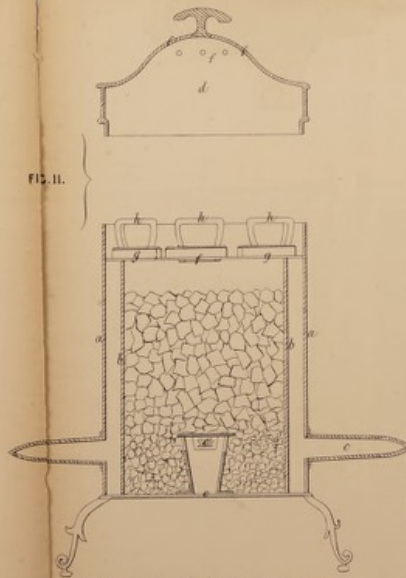
FIG. 10.

FIG. 2.



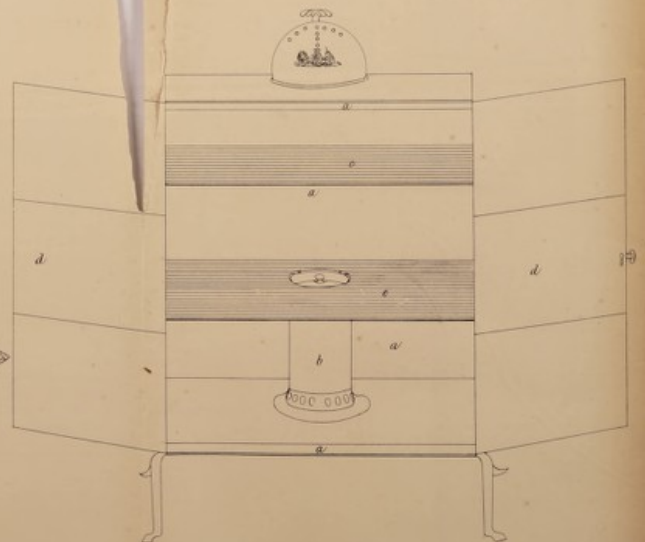
Scale about One inch to one foot.

FIG. 11.



Scale about 2 1/2 inch to One foot.

FIG. 16.

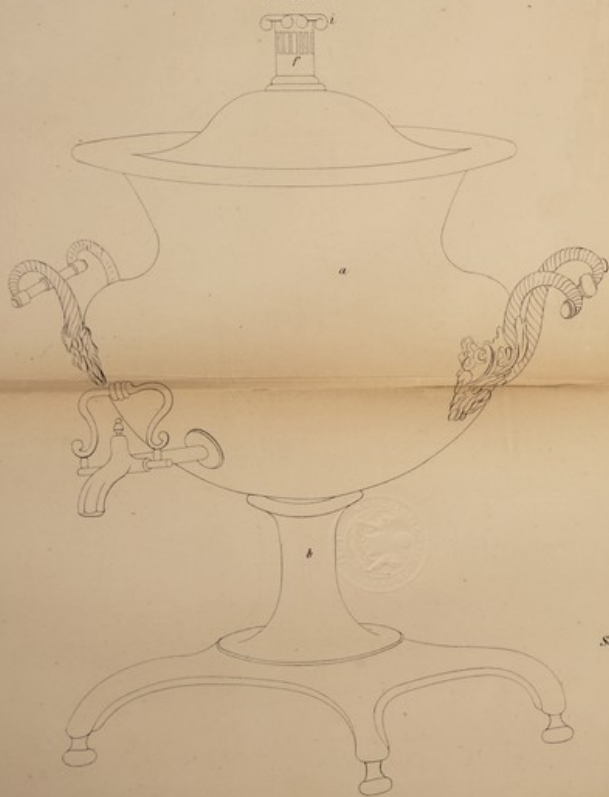


Scale about 1 1/2 inch to One Inch.

The enrolled drawing is colored.



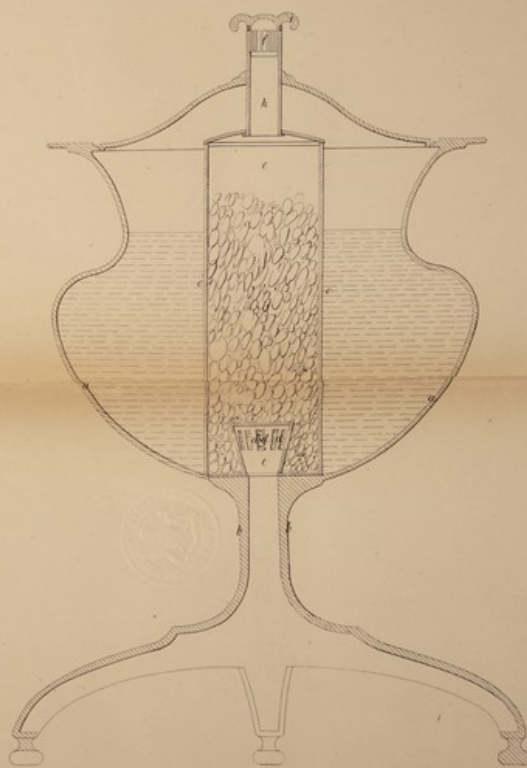
FIG. 3.



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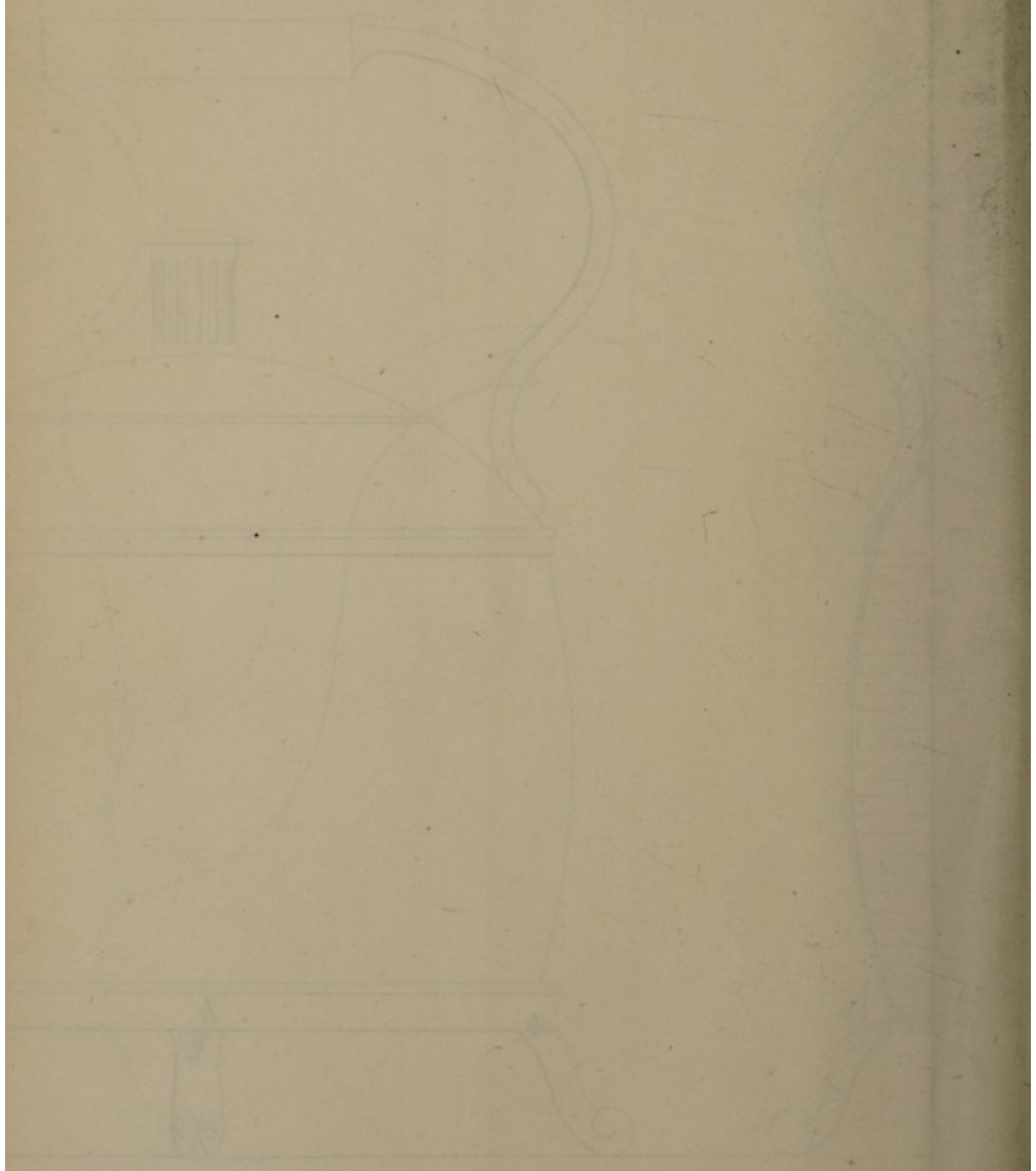
FIG. 4.



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FIG. 2



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FIG. 5.



FIG. 6.

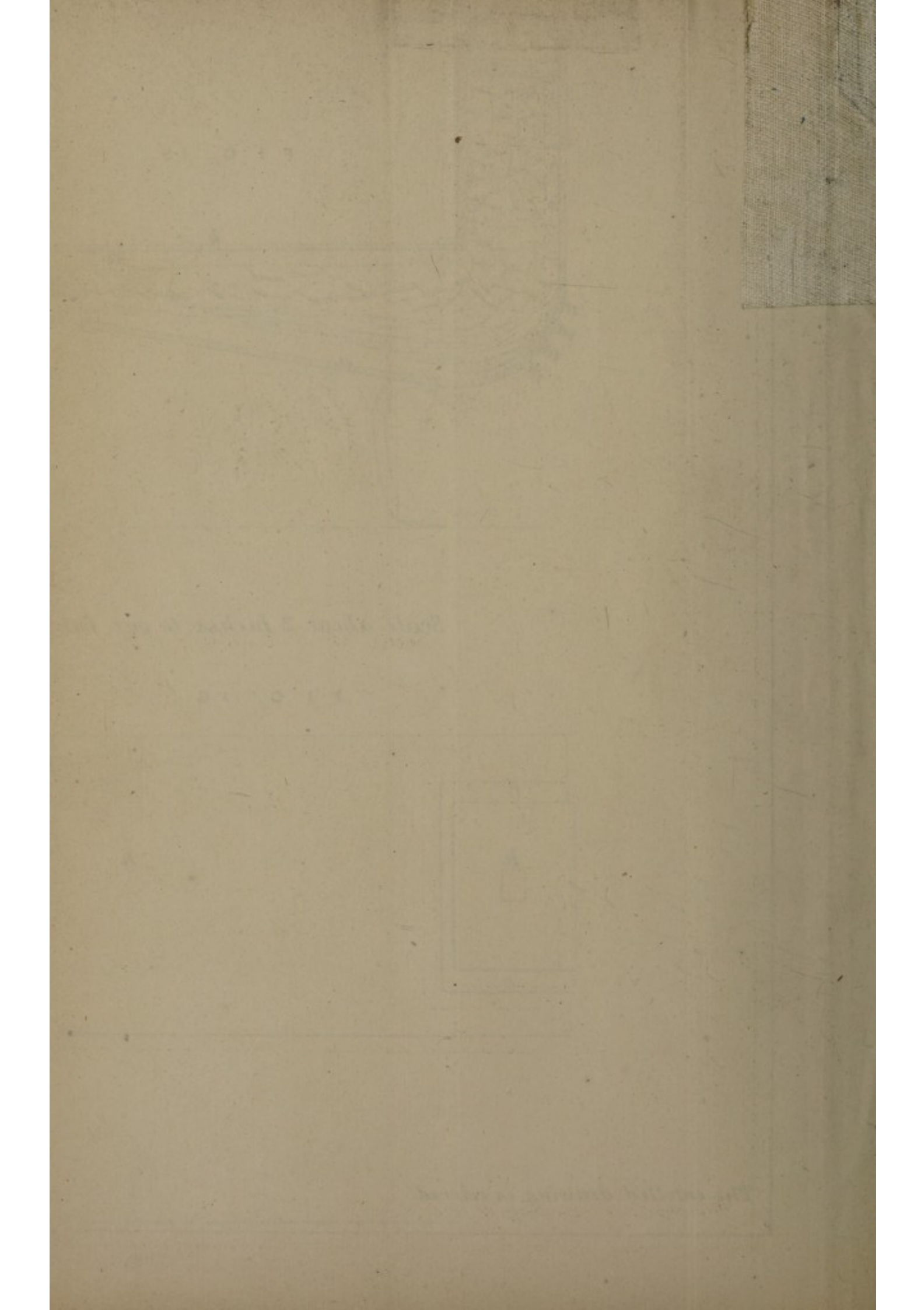


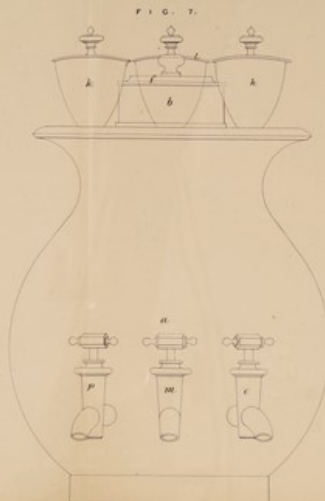
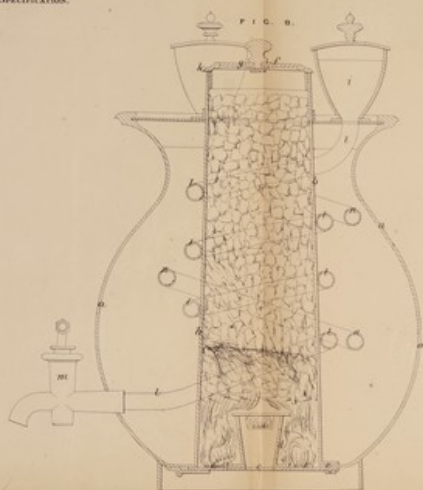
Scale about to real size

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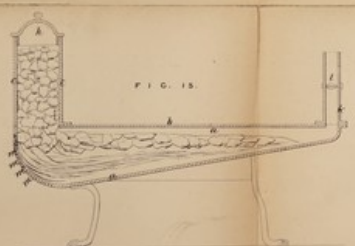
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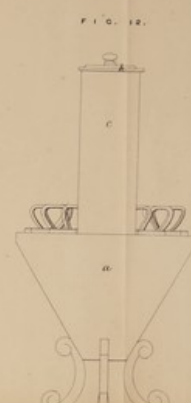
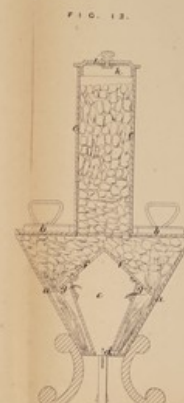
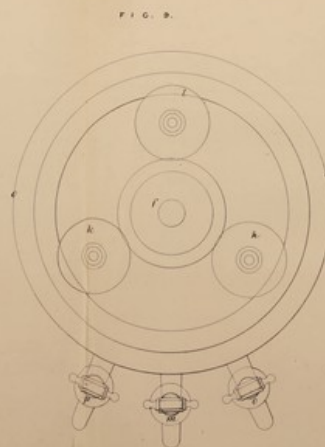




Scale about 1 real size.



Scale about 2 inches to one foot.



Scale 2 inches to one foot.



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1855 9/11 JAN 1855

Fig. 3

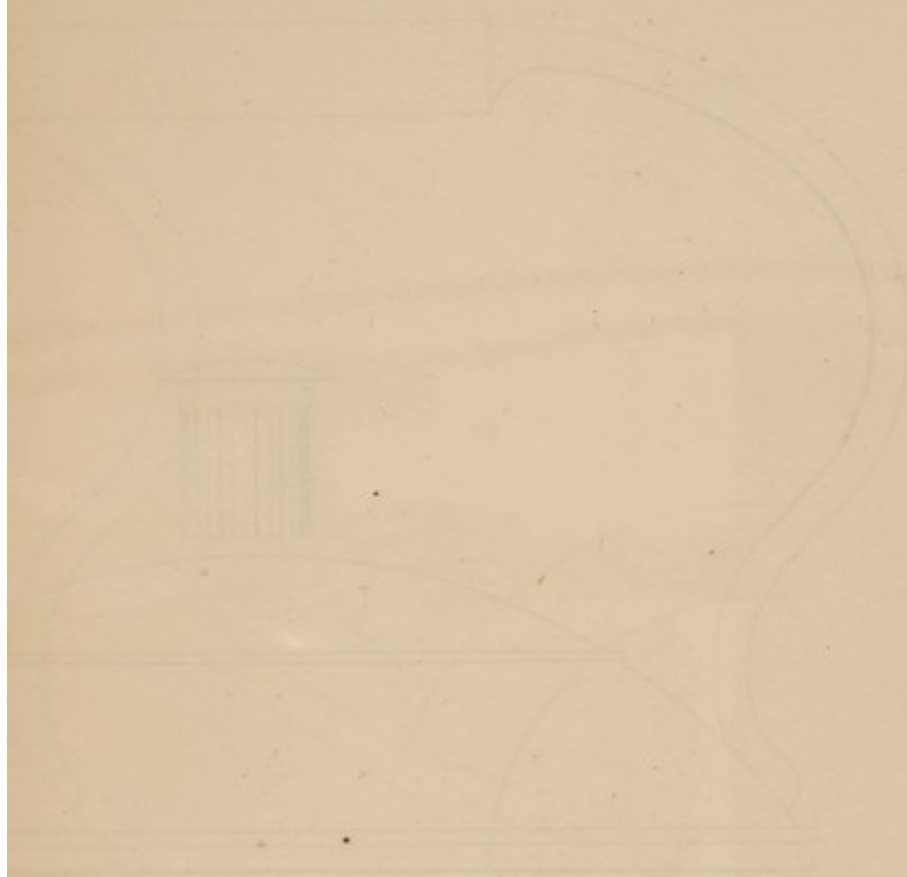


FIG. 17.

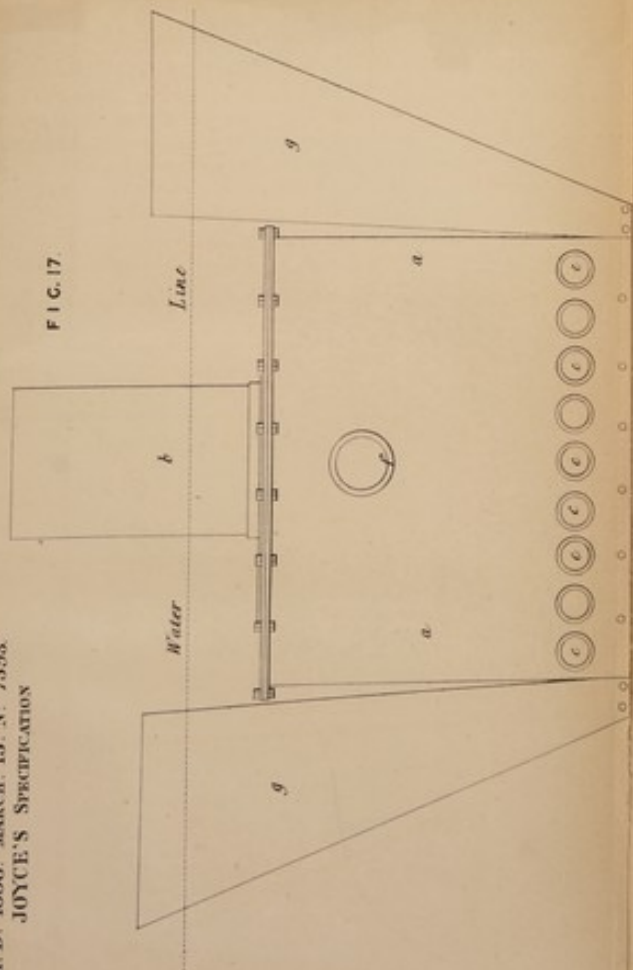
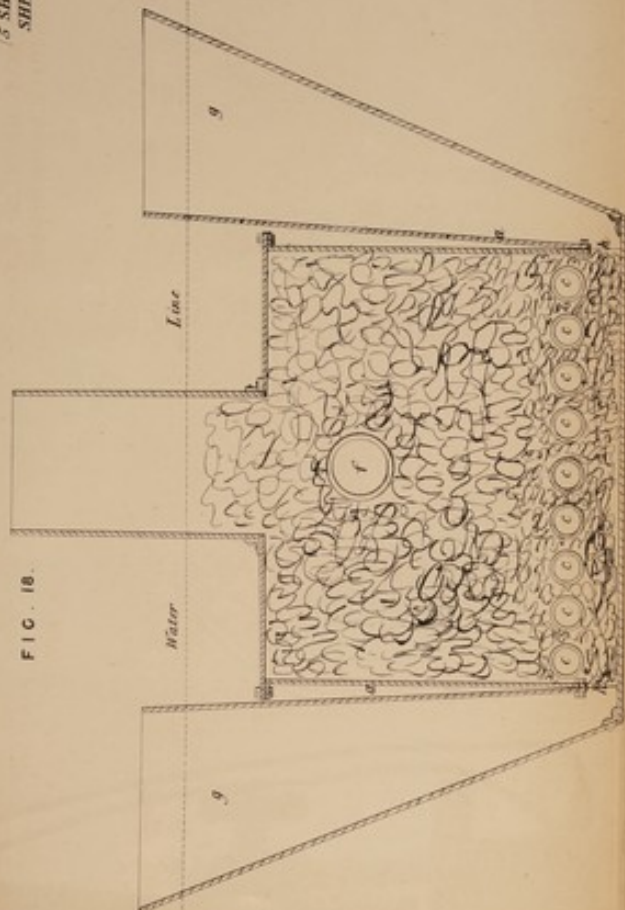


FIG. 18.



F I C 19.

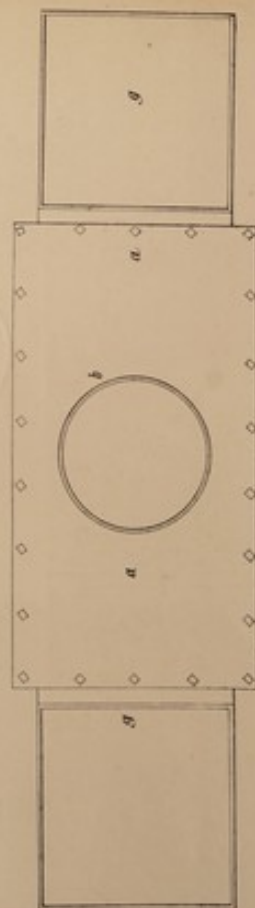


FIG. 20.



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