

No. 879,867.

PATENTED FEB. 25, 1908.

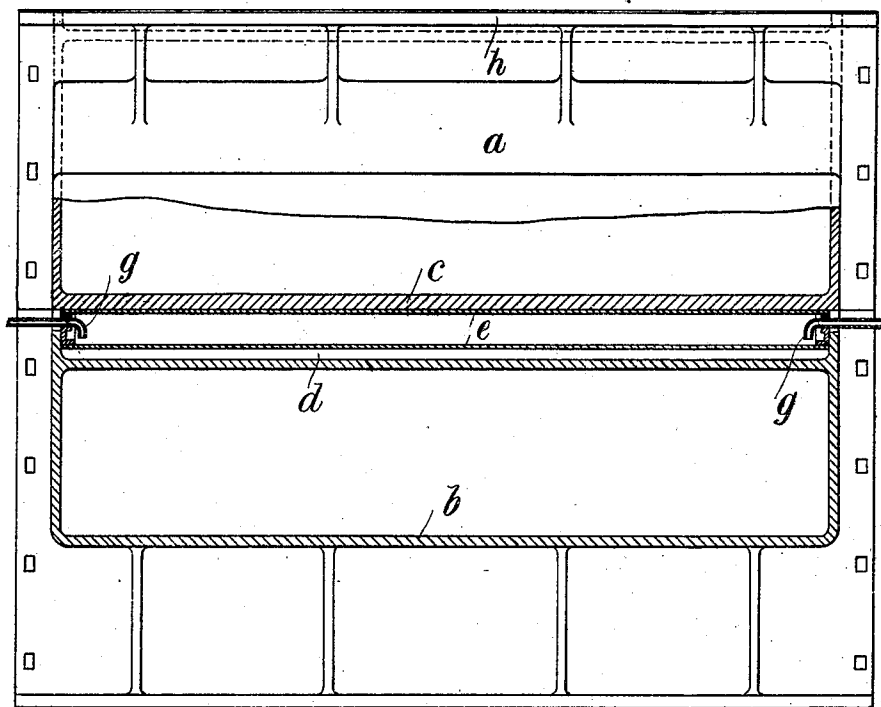
J. E. GRAY.

AGING AND STEAMING CHAMBER FOR FABRICS.

APPLICATION FILED APR. 6, 1907.

3 SHEETS—SHEET 1.

Fig. 1.



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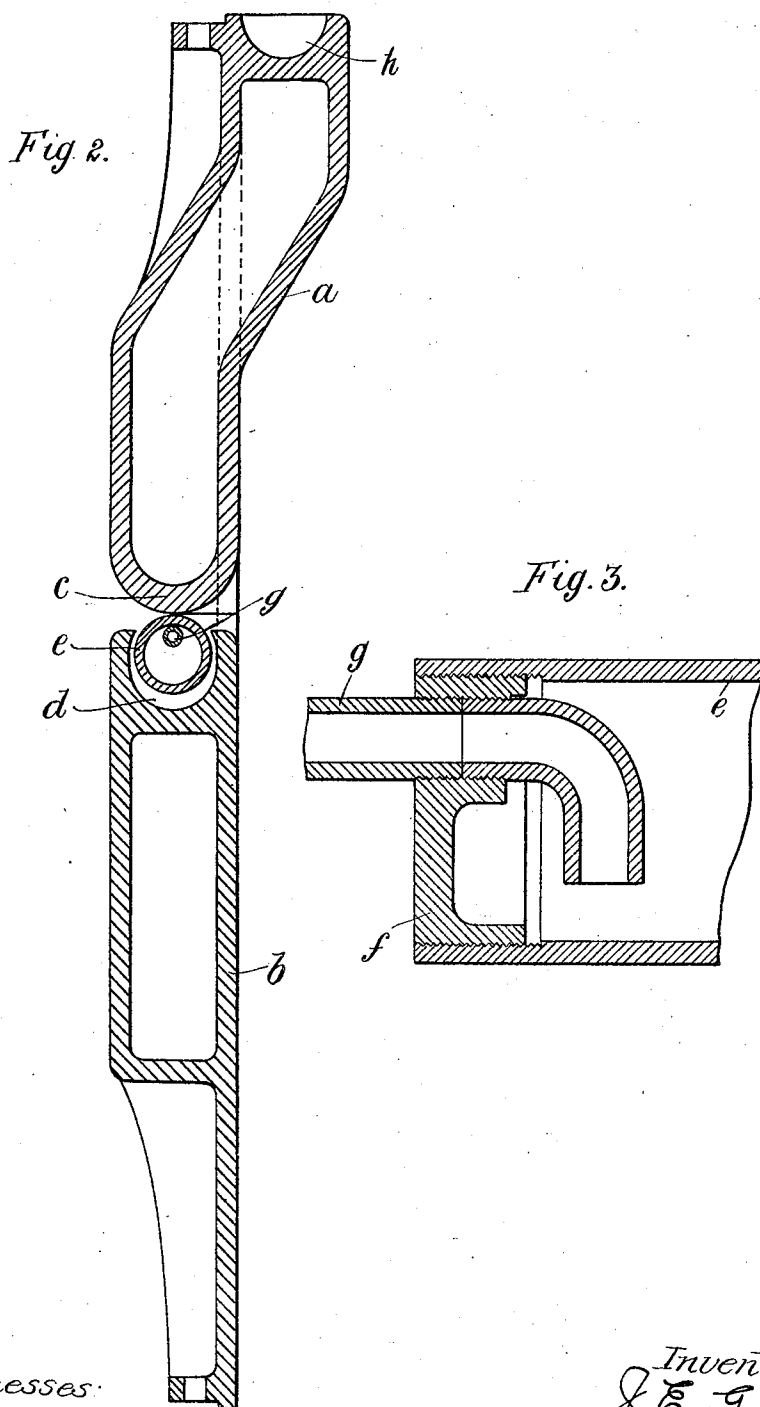
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3 SHEETS—SHEET 2.



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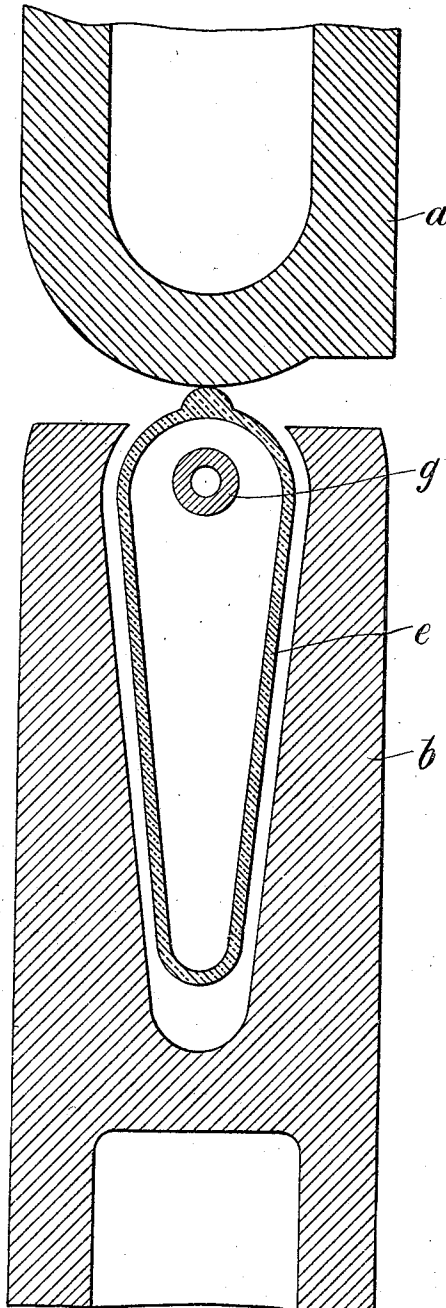
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3 SHEETS—SHEET 3.

Fig. 4.



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UNITED STATES PATENT OFFICE.

JOHN ERNEST GRAY, OF NEW MILLS, ENGLAND, ASSIGNOR OF ONE-HALF TO GEORGE W. GRAY, OF NORTH ADAMS, MASSACHUSETTS.

AGING AND STEAMING CHAMBER FOR FABRICS.

No. 879,867.

Specification of Letters Patent.

Patented Feb. 25, 1908.

Application filed April 6, 1907. Serial No. 366,752.

To all whom it may concern:

Be it known that I, JOHN ERNEST GRAY, formerly of Commercial Road, Love Clough, near Rawlenstall, in the county of Lancaster, England, but now of 35 Church road, New Mills, in the county of Derby, England, have invented certain new and useful Improvements in Aging and Steaming Chambers for Fabrics; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in aging and steaming chambers for fabrics, and has for its object the automatic closing of the opening through which the cloth enters and leaves the chamber.

In carrying the improvement into effect the top and bottom of the aforesaid opening are provided with steam chambers forming portions of the front wall of the chamber; the bottom edge of the top chamber is curved or rounded off for the cloth to work against, and the joint with this curved edge is made by means of a copper or other suitable metal steam pipe floating in mercury or other suitable metal or alloy, contained in a trough formed in the top edge of the bottom steam chamber, this steam pipe being coupled up to the steam and exhaust connections by means of flexible pipes and if necessary to be held in position with links attached to the ends of the pipe and pivoted on pins fixed to the chamber. The cloth to be operated on, passes between the steam pipe and the rounded edge of the top steam chamber. The top steam chamber also has a lip, projecting inside the chamber, for the purpose of catching and evaporating any condensed water that may run down inside the face of the chamber.

In the accompanying two sheets of drawings—Figure 1 is a sectional elevation of part of the front wall of an aging or steaming chamber to which the invention is applied. Fig. 2 is a transverse vertical section of Fig. 1. Fig. 3 is a detail view of one of the ends of the copper pipe. Fig. 4 is a similar view to Fig. 2 but showing a pipe approximately pear shaped in cross section instead of a round pipe.

In these views,—*a* designates the top steam chamber and *b* the bottom steam chamber which form part of the front wall

of the aging chamber; *c* the curved or rounded surface forming the bottom edge of the top steam chamber; *d* the trough formed in the top edge of the bottom steam chamber and containing mercury or other suitable metal or metallic alloy; *e* the copper or other suitable metal steam pipe fitted in the trough *d* and floating on the mercury therein; *f* the brass or other end pieces closing the ends of the pipe; *g* the tubular connecting pieces fitted in the end pieces *f* and to which the flexible steam pipes not shown are coupled to insure the circulation of steam through the pipe; and *h* is the lip formed on the top of the upper steam chamber *a* which is curved inwardly as shown in Fig. 2 so that the lip projects from the front wall and catches any water of condensation which runs down the internal face of the aging chamber.

The cloth to be aged enters the chamber between the smooth rounded surface *c* and the steam pipe *e* and a good joint is maintained by the upward pressure of the floating steam pipe *e* and consequently very little air can enter or steam escape from the aging chamber.

The cloth after its passage through the chamber can either be taken out at a separate outlet similarly fitted with a rounded edge and floating steam pipe or it can be taken out at the same opening which thus serves for both inlet and outlet.

What I claim and desire to secure by Letters Patent of the United States is:—

1. In an apparatus of the character described, an aging chamber provided in its wall with two steam chambers separated from each other, the upper wall of one steam chamber having a receptacle to contain fluid and a float mounted in said receptacle and adapted to bear against the lower wall of the other steam chamber.

2. In an apparatus of the character described, an aging chamber provided in its front wall with two steam chambers separated from each other, the lower wall of the upper steam chamber being curved, and the upper wall of the lower steam chamber having a float receptacle adapted to contain fluid and a float in said receptacle adapted to bear against the lower curved wall of the upper steam chamber.

3. In an apparatus of the character described, an aging chamber provided in its front wall with two steam chambers separated from each other, the lower wall of the upper steam chamber being curved, and the upper wall of the lower steam chamber having a float receptacle adapted to contain fluid and a float in said receptacle adapted to bear against the lower curved wall of the upper steam chamber.

rated from each other, the upper wall of the lower steam chamber having a receptacle therein adapted to contain fluid, and a floating steam pipe mounted in said receptacle and adapted to bear against the bottom wall of the upper steam chamber.

4. In an aging or steaming chamber in combination the top steam chamber *a* having a rounded surface *c* forming the top of the cloth opening, the bottom steam chamber *b* having a trough containing mercury or the

like, a steam pipe *e* floating in the mercury and forming the bottom surface of the cloth opening, all substantially as and for the purposes herein set forth.

In testimony whereof, I have signed this specification in the presence of two subscribing witnesses.

JOHN ERNEST GRAY.

Witnesses:

JAS. STEWART BROADFOOT,
HERBERT ROWLAND ABBEY.