

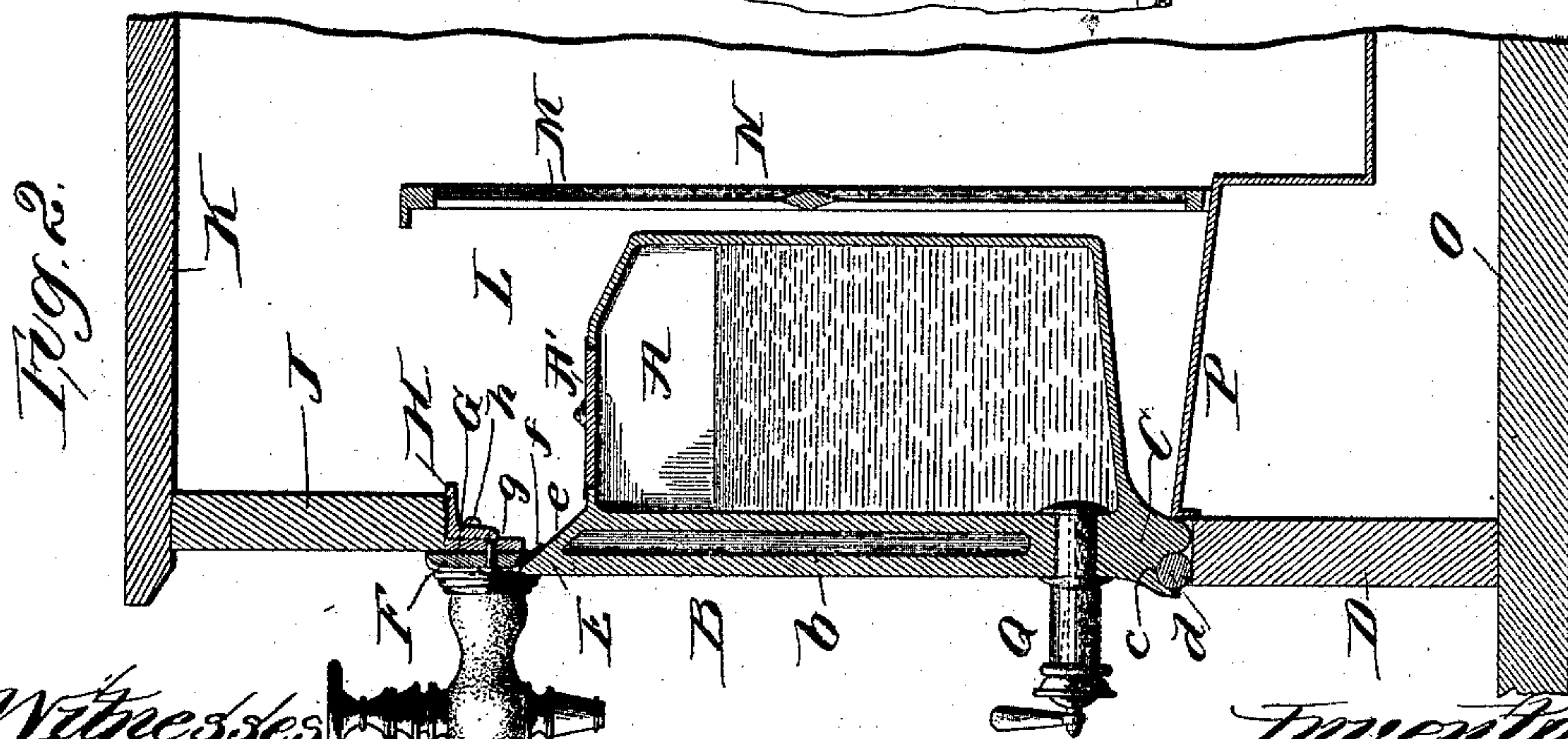
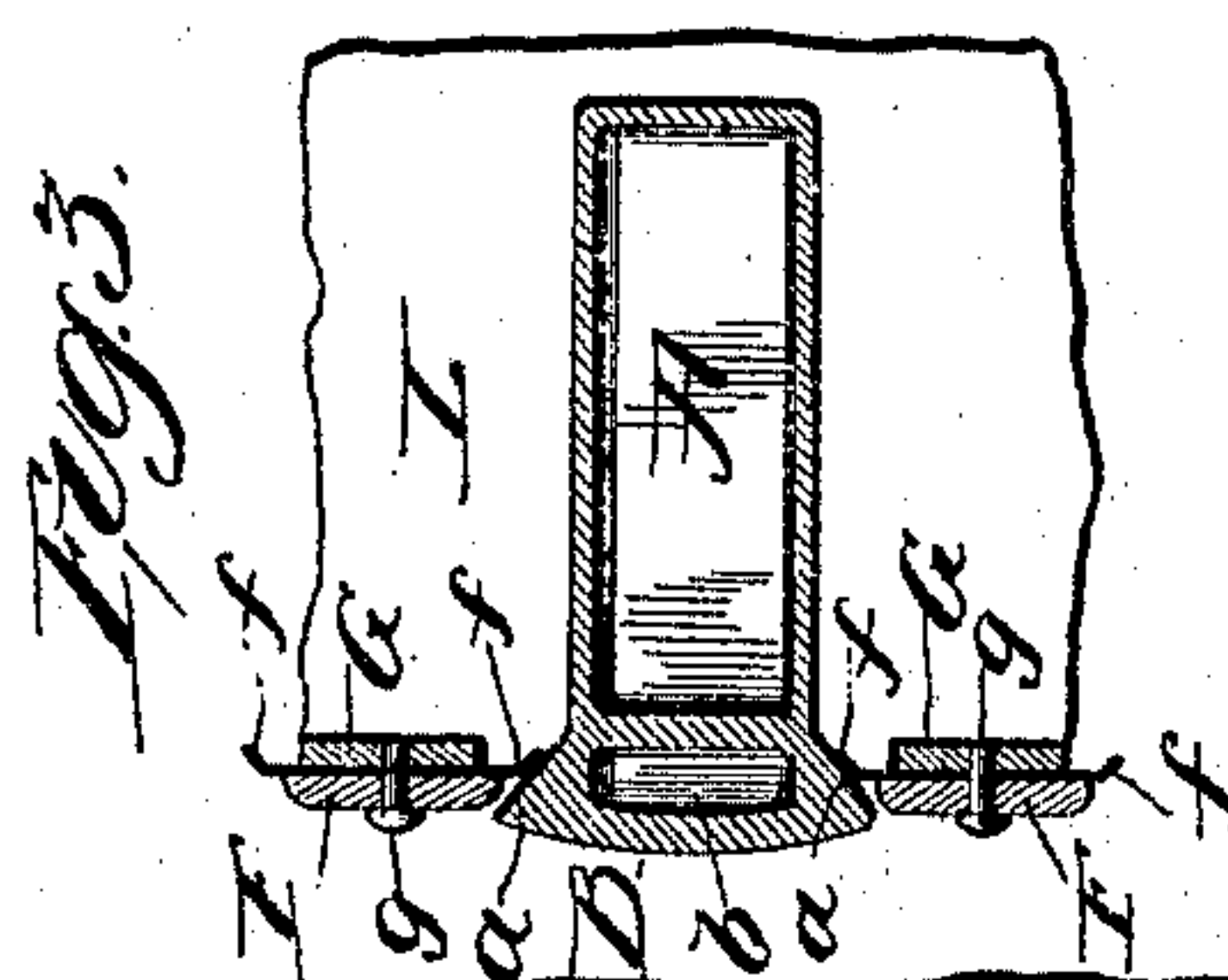
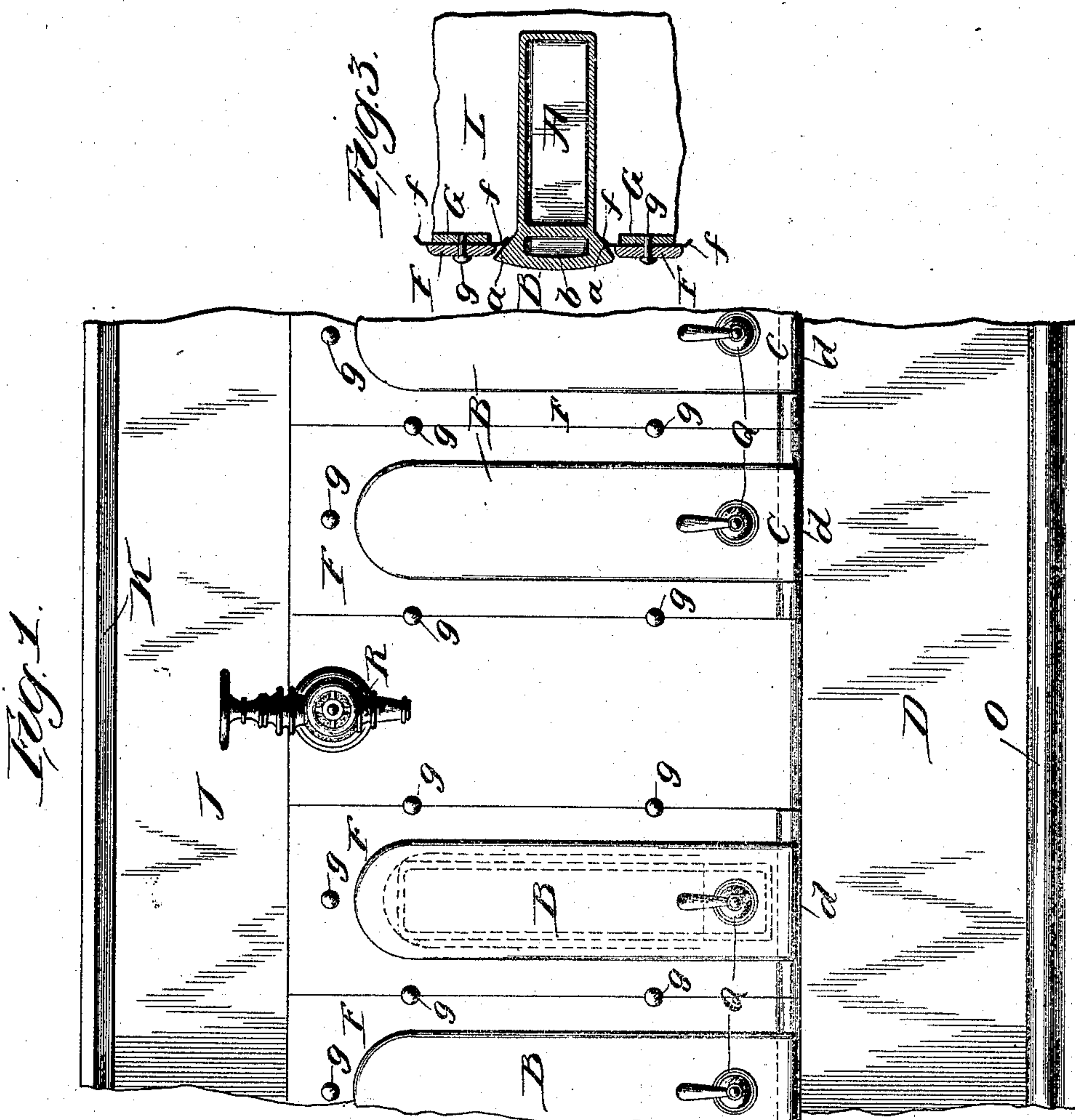
(No Model.)

2 Sheets—Sheet 1.

H. HOFF.
SIRUP DISPENSING APPARATUS.

No. 500,897.

Patented July 4, 1893.



Witnesses
C. W. Bond
J. M. Hoff.

Inventor
Herman Hoff.

(No Model.)

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Fig. 4

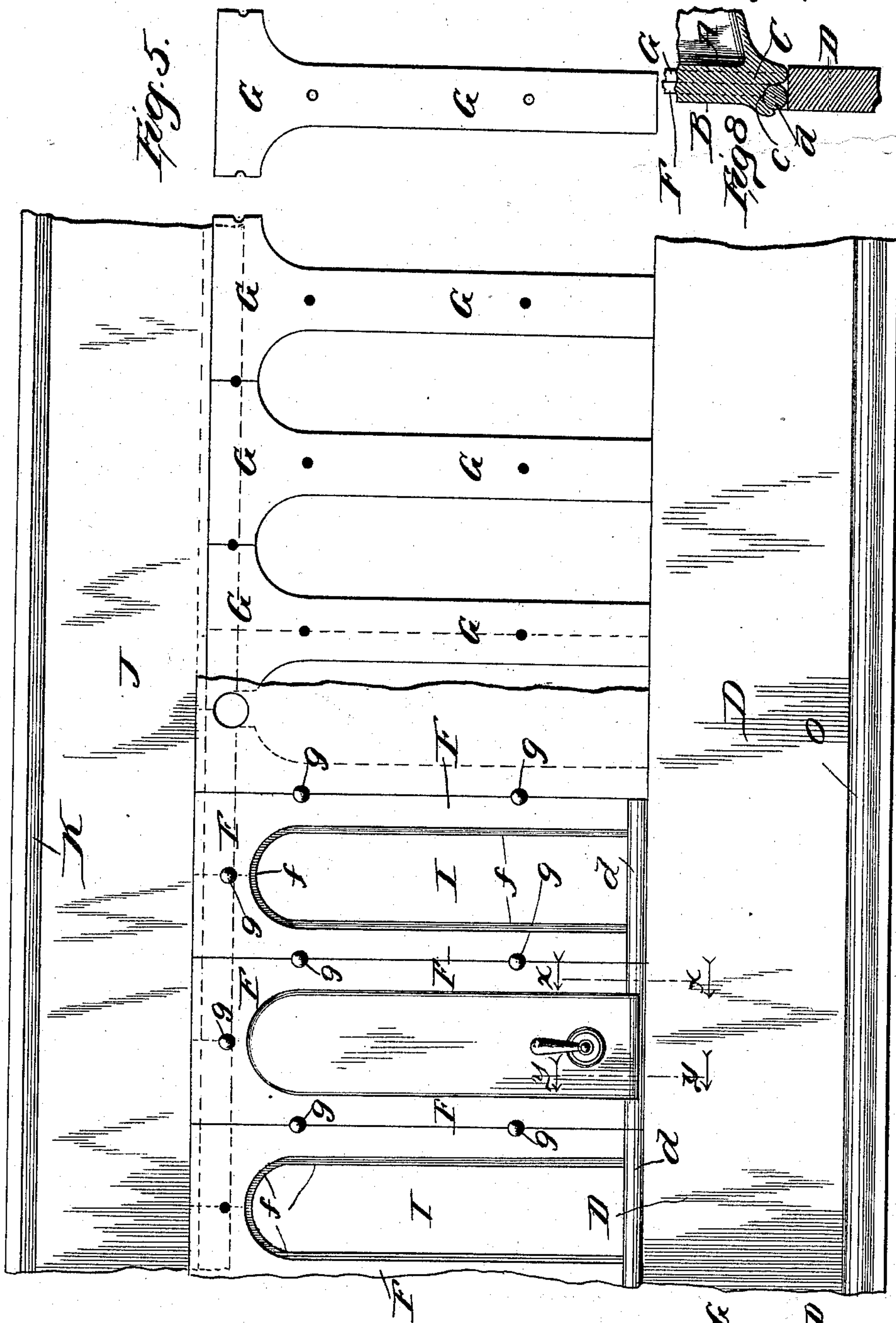


Fig. 5

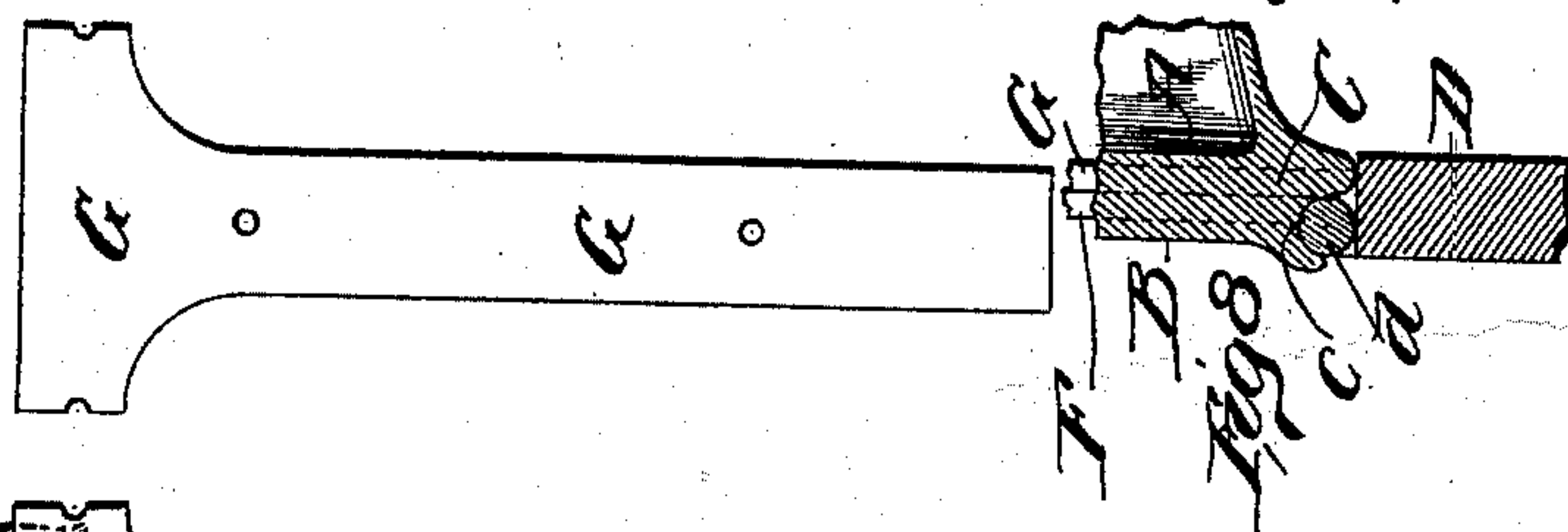


Fig. 8



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Fig. 6

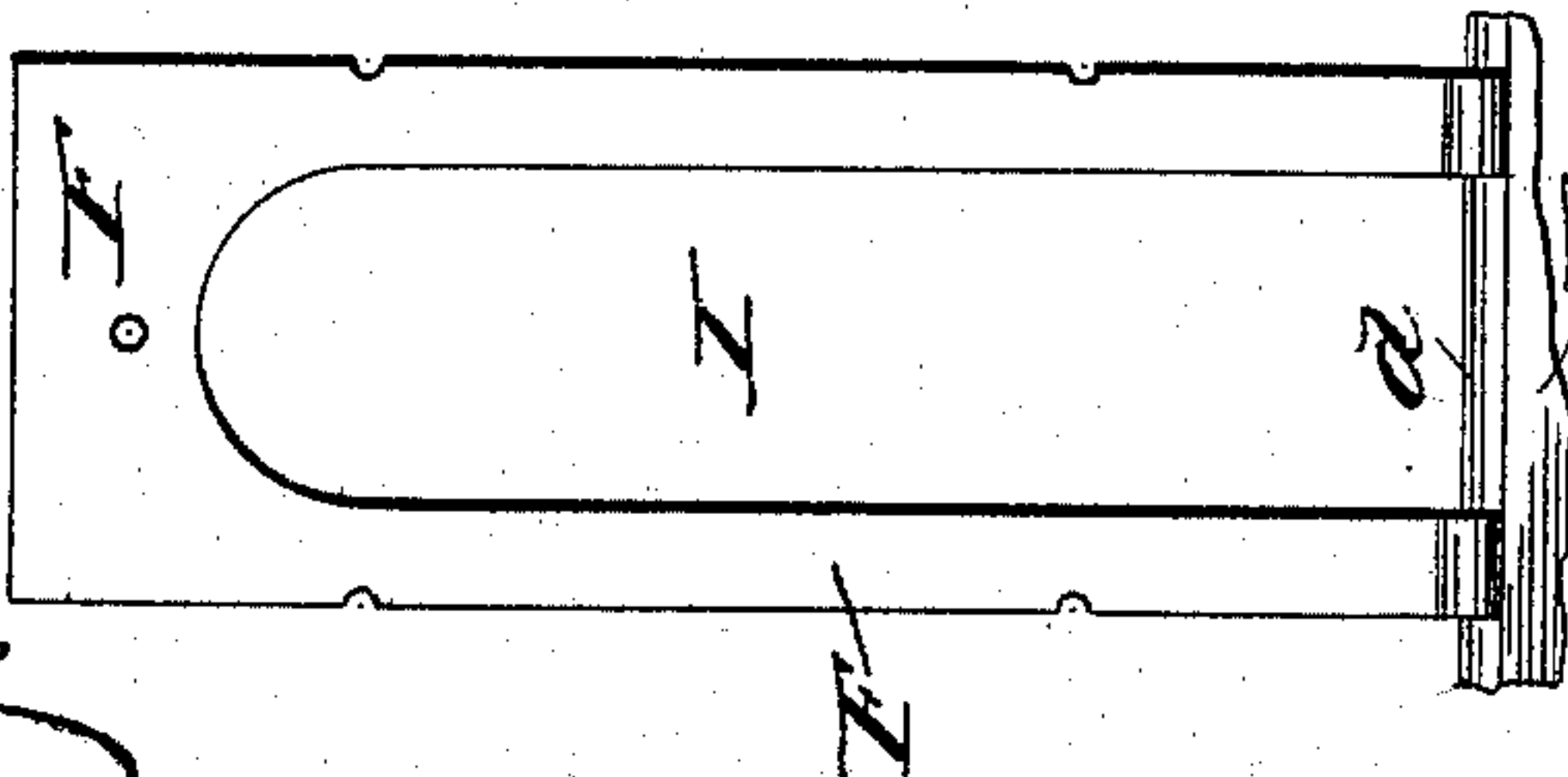


Fig. 7

Inventor

Herman Hoff.

UNITED STATES PATENT OFFICE.

HERMAN HOFF, OF CHICAGO, ILLINOIS, ASSIGNOR TO HIMSELF, HERMAN WILLAND, AND JAMES B. HERRON.

SIRUP-DISPENSING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 500,897, dated July 4, 1893.

Application filed February 8, 1893. Serial No. 461,535. (No model.)

To all whom it may concern:

Be it known that I, HERMAN HOFF, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Sirup-Dispensing Apparatus for Soda and other Aerated Fluids; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, forming a part hereof, in which—

Figure 1 is a front elevation showing part of a dispensing apparatus with the improvements applied thereto. Fig. 2 is a cross section of the apparatus showing only so much thereof as is necessary to illustrate the construction and arrangement of the improvement. Fig. 3 is a cross section through a sirup can. Fig. 4 is a broken front elevation of the receiving chamber for sirup cans, and some cans in position therein. Fig. 5 is one section of the frame of the receptacle removed. Fig. 6 is one of the frames placed exterior to the frames G. Fig. 7 is a vertical cross-section through a portion of parts D, G and F. Fig. 8 is a vertical transverse section of the upper portion of part D, the lower portion of the can and the lower portions of parts G and F.

This invention has for its objects to enable the sirup cans for a dispensing apparatus to be inserted into and withdrawn from the sirup chamber by simply lifting the can, such insertion and withdrawal being from the front of the apparatus; to insure a perfect closing of the can receiving chamber against the admission of air; to improve the construction of the sirup cans; to improve the manner of inserting and supporting the cans in the receiving chamber thereof, and to improve generally the construction and operation of a dispensing apparatus in the matter of inserting and withdrawing the cans; and its nature consists in the several parts and combinations of parts hereinafter described and pointed out in the claims as new.

In the drawings, A represents the body of a sirup can, having an opening at the top closed by a cover A', through which opening the can can be filled.

B is the front of the can formed of a double wall, leaving a chamber between the two walls closed at the top and bottom, to form a dead air space, *b*, which prevents the radiation of heat through the front of the can, to affect the body of the can and the contents of the can. Each side of the inner portion of the front B is formed with an inclined face *a*, as shown in Fig 3.

C is a neck or extension on the lower front edge of the can, and having, in the form shown, a concave groove *c*, and this neck C, as shown, has a slight inclination forward, so as to give the body of the can a gravity action for holding the can firmly when inserted in its chamber.

D is the bottom piece for the front of the box or receptacle forming the receiving chamber for the cans, the ice box and the chamber for the cooling coil, and other devices used in connection with the dispensing apparatus.

E is an upward extension of the front B of the can, which extension has an inclined inner face *e*, starting at or near the top of the body of the can.

F is a frame, one for each opening for a can, and formed to have a top and two side pieces, and a cross piece *d*, at the bottom which has a circular exterior, forming a support for the lower front end of the can, for which purpose the exterior face of *d*, corresponds to the face of the groove *c*, in the neck or extension C, so that the groove *c*, and the piece *d* co-act and form a lock connection against the withdrawal of the can, until the groove is released from the piece *d*, by raising the can.

G is a frame, formed as shown, in sections, united one to the other so as to make a continuous frame corresponding in length to the size of the dispensing apparatus, with openings corresponding in number to the number of cans to be used, but if desired, this frame could be formed of a single piece having a top portion with depending pieces between the openings for the cans. These frames F are secured to the frames G by screws *g*, or in any other suitable manner, and as shown, the screws *g* for the sides of the frames F, are half on one side edge and half on the other, so that a single set of screws unites the side edges of two frames F to the frame G. Before securing each frame F to the frame G, a strip of

rubber *f* is inserted between the frame F and the frame G, to have its edge at the top and on the sides projecting into the opening for the can, as shown in Figs. 2 and 3, and each
5 strip of rubber *f* is clamped and held in position by the attachment of its frame F to the frame G.

H is an angle or bracket iron, to which is attached the upper edge of the frame G, by
10 screws *h*, which angle iron extends the full length of the front of the apparatus, and is attached in any suitable manner to the under face or edge of the top piece for the front of the apparatus.

I are the openings at the front of the apparatus, formed by the frames F and G, an opening being provided for each sirup can, and into each opening the rubber *f* projects at the top and sides, as shown in Figs. 2 and 3.

20 J is the top piece of the box or receptacle, to the under edge of which is attached the bracket or angle iron H.

K is the top of the box or receptacle.

L is the receiving chamber for the cans.

25 M is the ice guard, dividing the receiving chamber L from the ice chamber.

N is the ice chamber.

O is the drip chamber and the chamber for the cooling coil.

30 P is a drip plate, extending from the bottom piece D to the ice chamber N, and beneath the ice chamber, and attached at its forward or front edge to the frame G, or otherwise, so as to have a close tight connection,
35 and prevent air from passing up into the can chamber L.

Q are the cocks for discharging the sirup from the cans, a cock being provided for each can, each cock having a stem, passing through
40 the front B, communicating with the interior of the can.

R is the cock for dispensing the soda or other aerated fluids, which cock or faucet, in the arrangement shown, is located on an intermediate or middle section having no sirup can, but which could be located on the top piece J, if so desired, in which case the section of the front, having the dispensing cock for the soda, could be utilized for the reception of a sirup can, by providing an opening I.

The front frame is attached in place by securing the angle iron or bracket H to the under edge of the piece J, and attaching to such
55 angle iron the frame G, with the required number of openings therein for the number of cans to be used, such attachment of the frame G being by screws *h* or otherwise, and when attached the lower edge of the frame G rests
60 upon the top edge of the front bottom piece D; the rubber or other flexible packing *f* is placed on each frame F, and the frame with the rubber is secured around the opening in the frame G, to form the opening I for each
65 can, and the lower cross piece or rod *d* for

each frame F rests upon the top edge of the front bottom piece D, and the frames F are attached in position by the screws *g* or otherwise, and the cross piece or support *d* for each frame F at the bottom can be entirely round 70 or half round, or otherwise formed to have a face corresponding to the face of the groove *c*, and if desired, instead of forming this support *d* with each frame F, it can be in the shape of a bead or rod on the upper edge of 75 the front bottom piece D, and instead of having the groove in the neck or extension C, such neck or extension could terminate in a circular round face, and the receiving groove could be formed in the cross piece *d*, for each 80 frame F, or could be a groove formed in the upper edge of the piece D, so long as the construction is one that will furnish a support for the can, and lock the can against slipping out until the locking parts are released by raising the 85 can, and the form of the locking parts *c* and *d* must be one having a relation that will permit the withdrawal of the can corresponding to the inclination of the face *e* of the extension or upper end of the front B, and at the 90 same time the contact between the locking parts should be one to effectually shut off the admission of air through the joint into the can receiving chamber.

Each can is inserted at the front for its 95 body A, to lie within the can chamber L, by holding the can up and pushing it inward until the groove and rib are in line to engage one with the other with the dropping of the can, and when fully inserted the inclined 100 face *a* on each side of each can is in close contact with the packing strip *f* on each side of the opening I, effectually closing the opening against the admission of air around the side and top of the can, and as the groove and 105 bead or rib carrying the can at the bottom, likewise tightly close the opening at that point, it will be seen that air cannot enter the can chamber around the cans, when the cans are all in place, and by having the dead air 110 chamber *b* at the front of each can, the effects of air and heat are entirely avoided. Each can is withdrawn for filling purposes or otherwise, by lifting the can vertically until the groove and the bead or rib are disengaged 115 one from the other, and such lifting is permitted by the inclined face *e*, and when the can is lifted clear of its locking groove and bead, it can be drawn straight out from the receiving chamber L. Each can, when in position, is held firmly by gravity, which tends to draw the body of the can down, and such downward pull on the body of the can causes the groove and its support or bead to be brought in close relation, and at the same 125 time the effect of this gravity draw on each can is to force the side faces *a*, and top face *e*, in close contact with the packing strip *f*, and when the can is fully inserted it will be held by the action of gravity on the body of 130

the can, and the engagement of the locking groove and its rib or bead, without the use of any lock or catch at the top of the can.

What I claim as new, and desire to secure by Letters Patent, is—

10 1. The combination, in a dispensing apparatus, of a sirup can, having a front, with a beveled face on each side of the front, an opening for the sirup can formed of an inner and outer frame, and a packing strip on each side of the can opening engaging the beveled side faces of the can when in its chamber, substantially as and for the purposes specified.

15 2. The combination, in a dispensing apparatus, of a sirup can having a front, with a beveled face on each side, an upward extension of the front, having a beveled inner face, an opening for the sirup can formed of an inner and an outer frame, and a packing strip projecting into the can opening at the top and on each side, and engaging the beveled side and top faces of the can when in its chamber, substantially as and for the purposes specified.

3. The combination, in a dispensing apparatus, of an inner frame, having an opening for the passage of a sirup can, an outer frame having a corresponding opening, and a packing strip between the two frames projecting into the can opening on the sides and top, substantially as and for the purposes specified.

4. The combination in a sirup dispensing apparatus of a removable sirup can whose front is composed of double walls with a dead air chamber between them and the metal margins of the chamber extending laterally at both edges thereof and at the top; and the inner portions of said margins beveled outward, and elastic strips *f* projecting inward from the front of the receptacle, and a can support at the front bottom portion whereby the gravity of the can brings strips *f* closely against said beveled portions, as and for the purpose specified.

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Witnesses:

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F. W. ROBINSON.