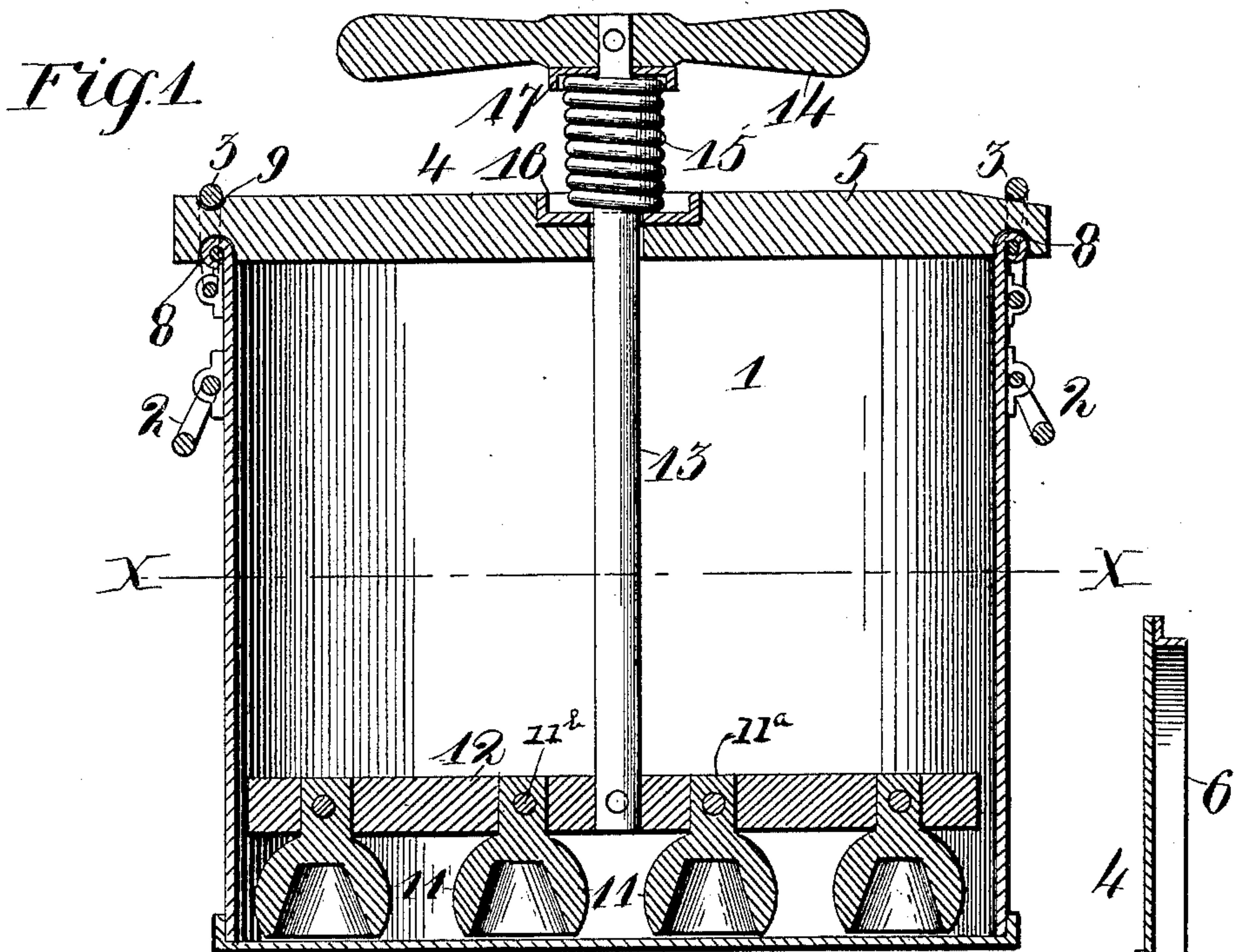


(No Model.)

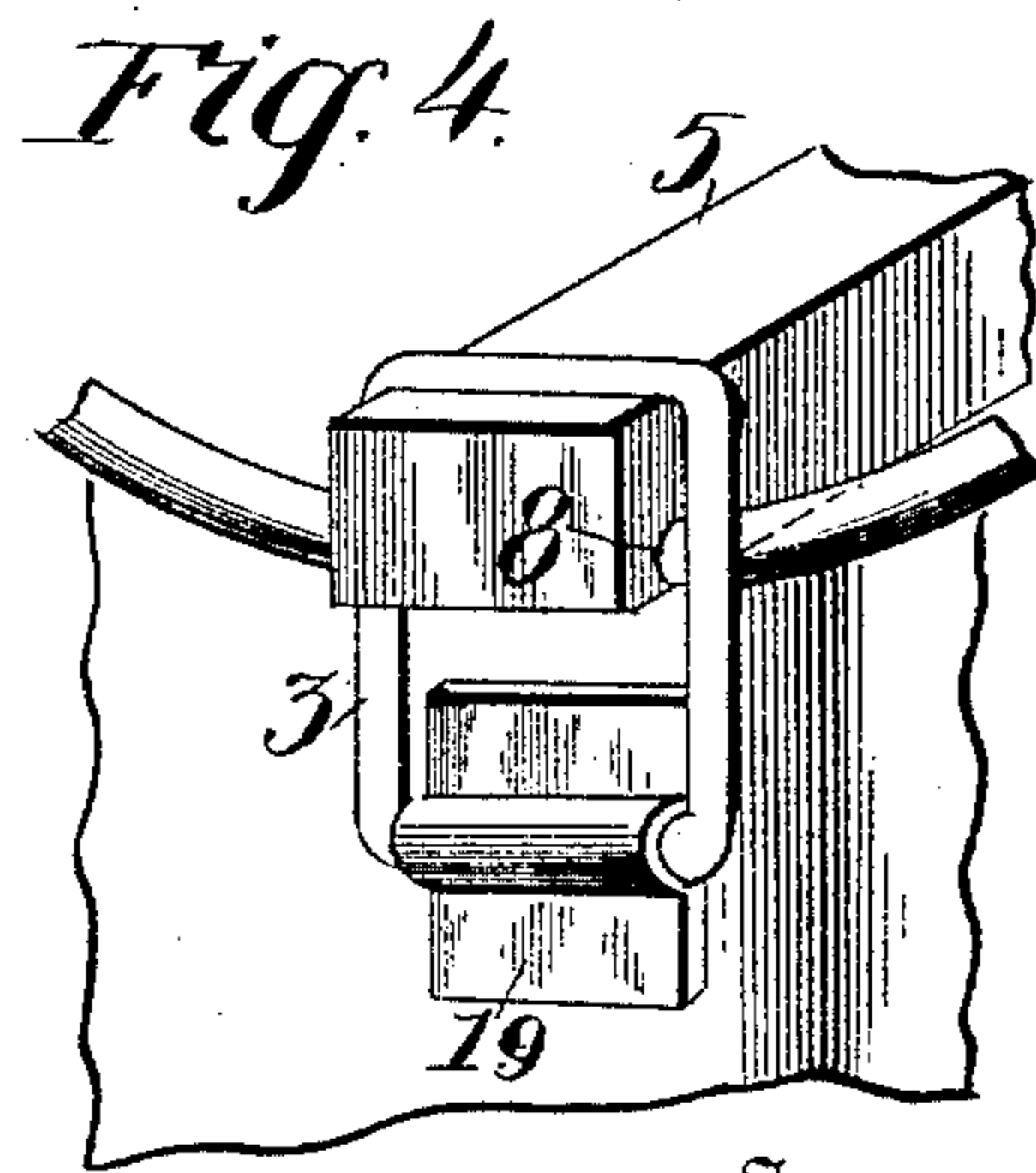
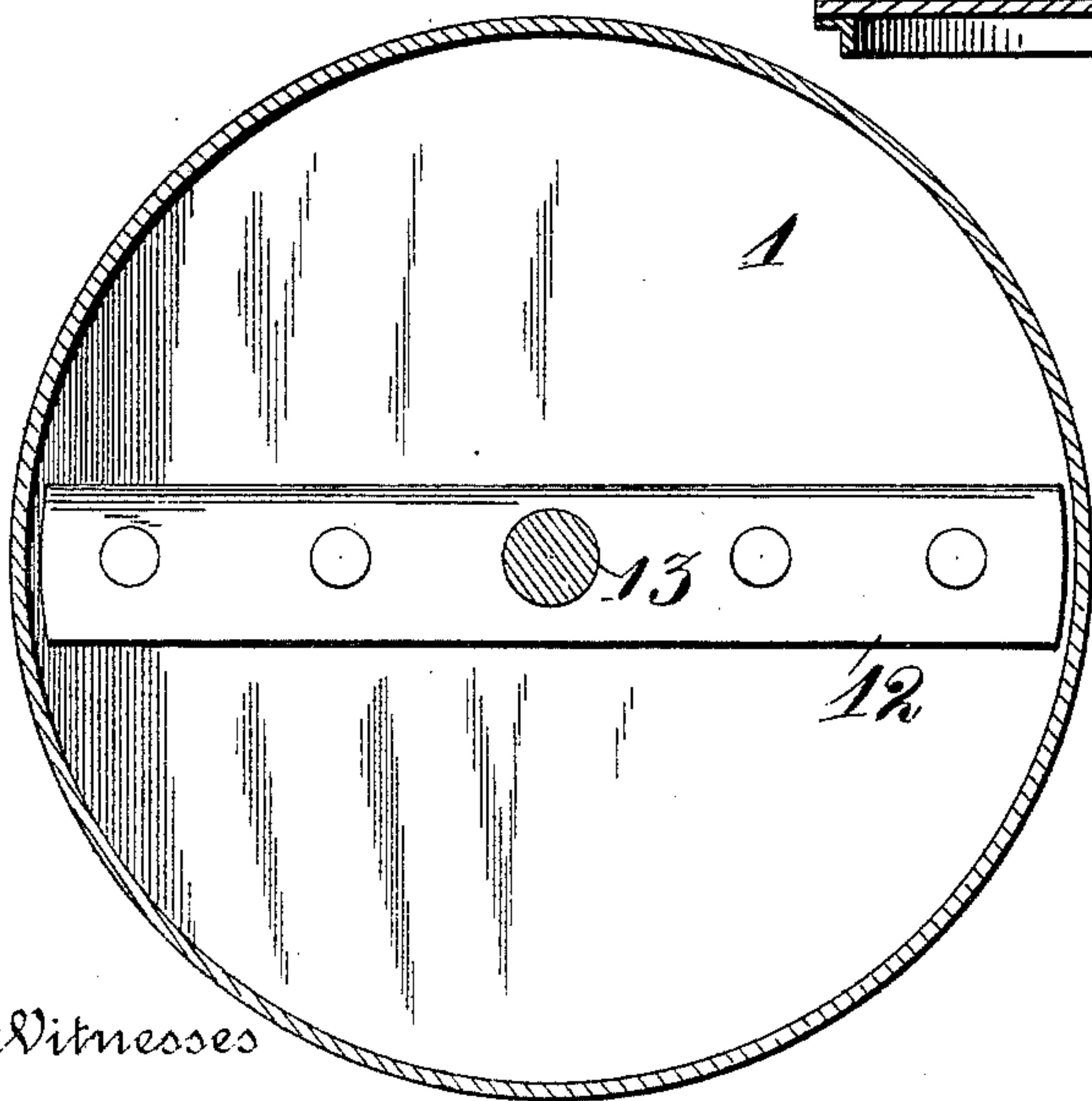
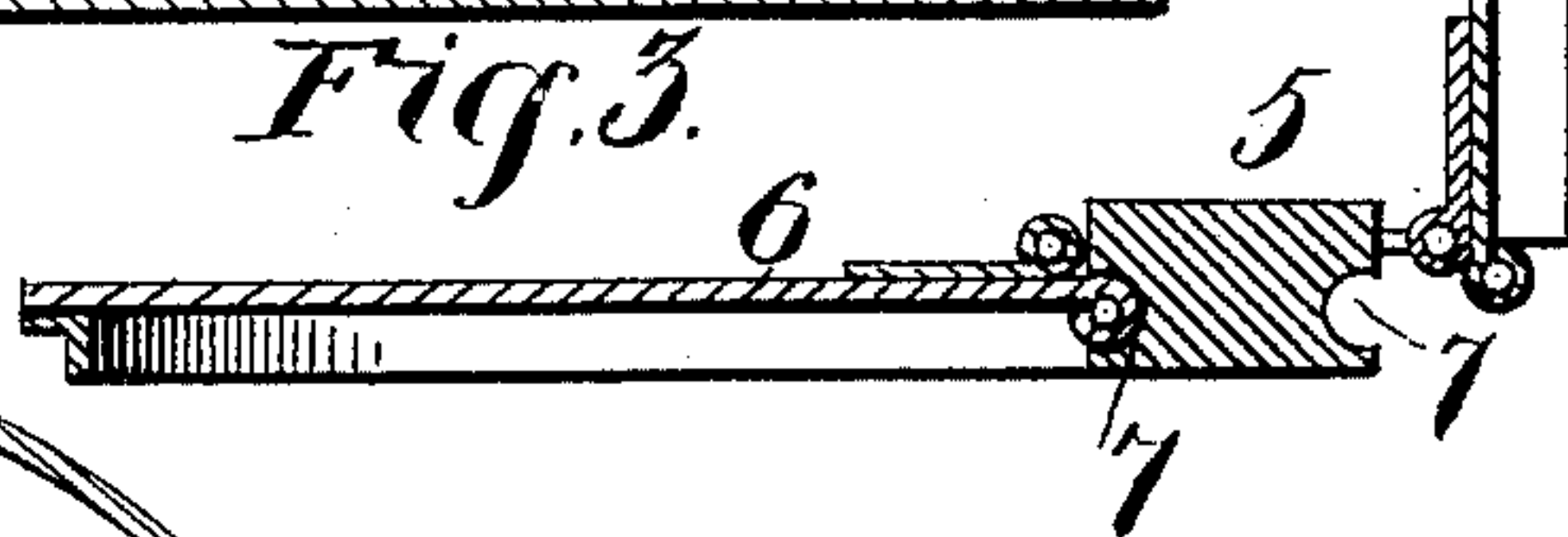
A. J. STASEY.  
WASHING MACHINE.

No. 460,835.

Patented Oct. 6, 1891.



*Fig. 2.*



Witnesses

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By *his* Attorneys *Higdon & Higdon*



# UNITED STATES PATENT OFFICE.

ANDREW J. STASEY, OF MEXICO, MISSOURI.

## WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 460,835, dated October 6, 1891.

Application filed February 9, 1891. Serial No. 380,771. (No model.)

*To all whom it may concern:*

Be it known that I, ANDREW J. STASEY, of the city of Mexico, Audrain county, and State of Missouri, have invented certain new and useful Improvements in Washing-Machines, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to improvements in washing-machines; and it consists in the novel arrangement and combination of parts, as will be more fully hereinafter described, and designated in the claim.

In the drawings, Figure 1 is a vertical section of my complete invention. Fig. 2 is a horizontal cross-section taken on the line  $xx$  of Fig. 1. Fig. 3 is a diametrical section of the lid or cover with one leaf thereof elevated and the other in its normal position. Fig. 4 is a perspective view of one side of the lid or cover as applied to the boiler, with parts broken away.

Referring to the drawings, 1 indicates an ordinary boiler or receptacle constructed of sheet or any suitable metal, in which the clothes and water are adapted to be placed when the same is in functional use. Said boiler is provided with handles 2, by which the same may be removed and placed on a source of heat and also manipulated, as desired, at the discretion of the operator, and said boiler is additionally provided with retaining-wires 3, which have the function of holding the stationary or permanent part of the cover to said boiler, as will be more fully hereinafter specifically described. Said wires are secured to the sides of the receptacle by means of cleats 19, in which said wires are free to rotate. 4 indicates a lid or cover, which is adapted to fit over said boiler 1, and embodies the ordinary function of a lid or cover. Said lid or cover is composed of three sections—to wit, a horizontal cross-piece 5, to which leaves or wings 6 of the cover are hinged. Said horizontal cross-piece 5 is provided longitudinally on its lateral edges with grooves 7, into which the straight edges of the wings are adapted to fit when the same are in their normal position, thereby effecting as near as possible a water-tight joint. Said horizontal cross-piece is likewise provided on its lower terminal portions with

curvilinear grooves 8, in which the rim of the boiler is adapted to fit when said horizontal cross-piece is in its normal position on said boiler. The upper terminal portion is provided with a groove 9, in which one of the retaining-wires 3 is adapted to rest in the operation of securing said cross-piece in its normal position on the boiler 1. In order to effect the securing of said horizontal cross-piece to the boiler, the end of said piece, which is provided on its top surface with groove 9, is normally placed on said receptacle 1, with the opposite end thereof in an elevated position, and then retaining-wire 3 is pulled over said end, which is resting in its normal position, while the opposite end thereof is elevated. Then by depressing or lowering said elevated end the retaining-wire 3 will be brought into groove 9, and when the previously-elevated end is resting in its normal position the other retaining-piece may be pulled over the said end, which is beveled, as shown, by which operation the horizontal cross-piece is permanently secured to the boiler in its normal position. The wings are hinged to said cross-piece in any suitable and mechanical manner; but preferably as shown in the drawings.

The washing and cleansing function embodied in my invention is composed, essentially, of a series of inverted cups 11, which are rigidly and firmly secured to horizontal cross-piece or dasher 12 by being shouldered in the same. The cups are formed of a single piece of material, and have projecting from their upper parts extensions  $11^a$ , which pass through apertures in the cross-piece 12 and are secured therein by pins  $11^b$ . The outer surface of the cup is of approximately-spherical form, and they have openings or recesses of the shape of the frustum of a cone. Said dasher is rigidly and firmly secured to a vertical shaft 13, which shaft has its bearings in a suitable perforation formed in the horizontal cross-piece 5, and said shaft 13 is free to move revolubly in said bearing and also vertically upwardly and downwardly in the operation of pounding and washing the clothes contained in said receptacle. The revolving motion is designed to permit the revolution of the cups around in the interior space of the receptacle and bring them in



contact with all the clothes contained therein. One end of said shaft 13 is provided with an angular portion, on which an arm 14 is suitably and mechanically mounted.

5 15 indicates a spiral spring, which is mounted on shaft 13, one end of the same resting on a metallic bearing-plate 16, which is secured to the top surface of horizontal cross-piece 5, and the other end thereof bearing against the  
10 lower surface of arm 14. The elasticity of said spring assists in supporting the dasher and inverted cups and also automatically elevates the same when depressed by the application of force.

15 17 indicates a plate, which is secured to the lower surface of arm 14, against which the upper end of the spiral spring presses. Said plates 16 and 17 are provided on their bearing-faces with circular recesses, in which the  
20 ends of the spiral spring are adapted to fit and also revolve therein.

Having fully described the mechanical parts of my invention and the manner in which they are conjoined together in functional operation, I will now proceed to describe in brief the *modus operandi* of the device.

The parts are made and put together substantially as hereinbefore described. The  
30 clothes are put in the receptacle 1, with the inverted cups being located above said clothes. By the application of force on the part of the operator the cups may be depressed and brought in contact with the clothes, thereby  
35 pounding and cleansing them at each successive depression and elevation of the cups.

The upward movement of the cups is effected by the elasticity of spring 15, and, as can be readily perceived, requires very little  
40 power and physical energy to operate the

dasher, and consequently the cups, which is quite a valuable consideration in the construction of washing-machines.

The object of having a lid, as hereinbefore described, is to permit the insertion of the clothes and water into the receptacle by the elevation of one while the other is in its normal position, thereby partially restraining the escape of steam, which would be more likely to escape if the entire lid was removed, or the operator can stand at the side of the boiler with the hinged wing in its normal position, and the escaping steam and gas will not come in contact with the face of the operator.

Having fully described my invention, what I claim is—

A washing-machine consisting of a receptacle or boiler, a lid or cover composed of three sections and adapted to be placed on said receptacle or boiler, longitudinal grooves 7 in the edges of the central section, in which the edges of the adjacent sections are adapted to fit, grooves 8 in the under side of each end of said central section, a groove 9 in the upper side of one end thereof, a downwardly-inclined beveled surface on the opposite end, retaining-wires 3, adapted to fit over said ends, a cross-piece or dasher, a vertical shaft secured to said cross-piece or dasher and having its bearing in the middle portion of said lid or cover, and a handle secured to the upper end of said vertical shaft for operating the dasher, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

ANDREW J. STASEY.

Witnesses:

B. B. LUREMAN,  
D. P. MOORE.