No. 713,425. Patented Nov. 11, 1902.

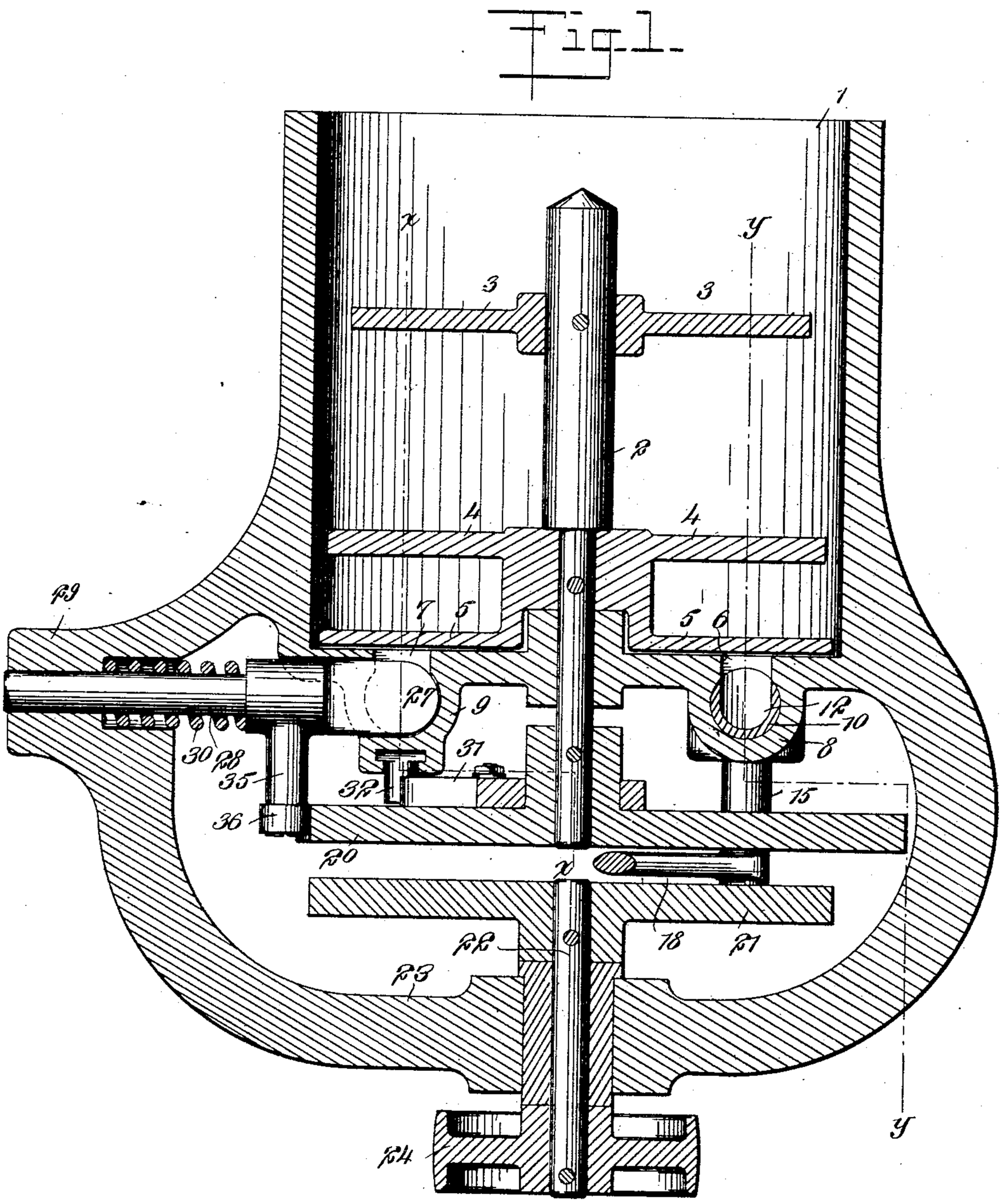
J. W. GHEEN.

SALTING MACHINE.

(Application filed July 13, 1901.)

(No Model.) 3 Sheets—Sheet 1.

Fig. 1.



WITNESSES:

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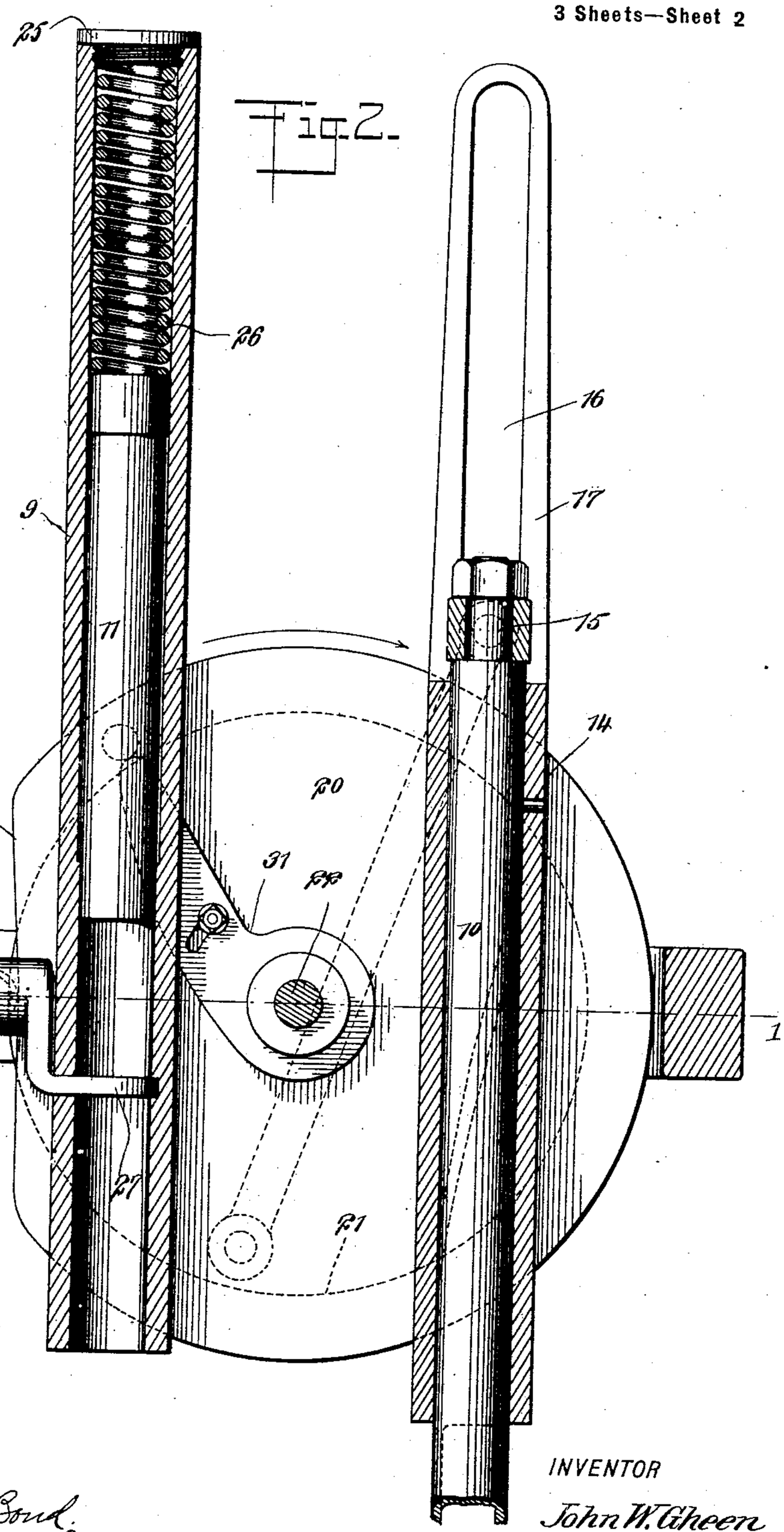
3 Sheets—Sheet 2

Fig. 2.



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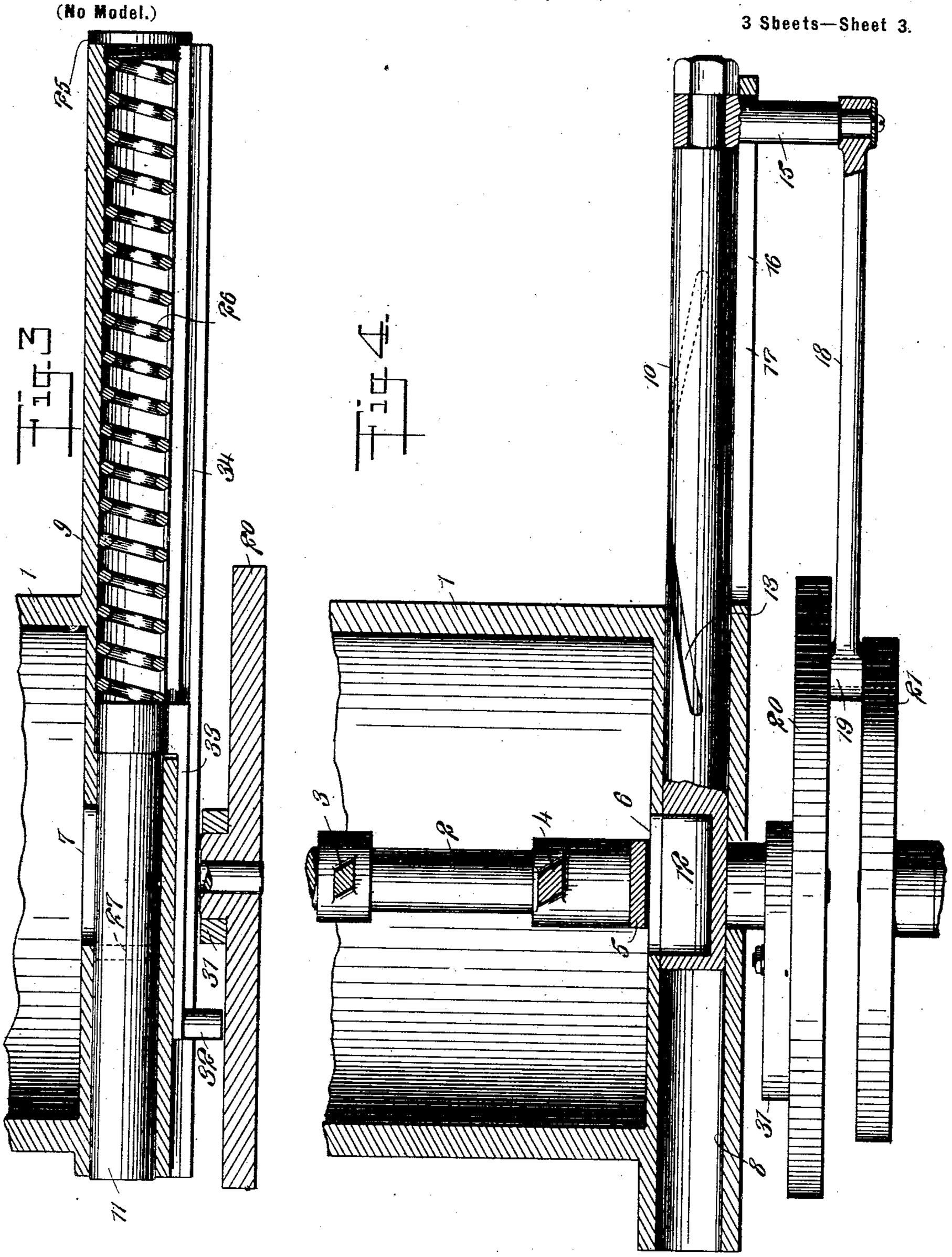

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UNITED STATES PATENT OFFICE.

JOHN W. GHEEN, OF ASTORIA, OREGON.

SALTING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 713,425, dated November 11, 1902.

Application filed July 13, 1901. Serial No. 68,165. (No model.)

To all whom it may concern.

Be it known that I, JOHN W. GHEEN, a citizen of the United States, and a resident of Astoria, in the county of Clatsop and State of Oregon, have invented a new and Improved Salting-Machine, of which the following is a full, clear, and exact description.

This invention relates to machines for supplying salt to cans used for canning meats, fish, &c.; and the object is to provide a machine of simple construction and by means of which measured quantities of salt may be rapidly fed into the cans.

I will describe a salting-machine embodying my invention and then point out the novel features in the appended claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a sectional elevation of a salting-machine embodying my invention. Fig. 2 is a horizontal section thereof. Fig. 3 is a section on the line $x\ x$ of Fig. 1, and Fig. 4 is a section on the line $y\ y$ of Fig. 1.

Referring to the drawings, 1 designates a receptacle for salt and in which is mounted to rotate a shaft 2, carrying stirrer-arms 3 4 to prevent the salt from caking in the receptacle, and also carrying scraper-arms 5 for forcing the salt into pockets or openings 6 and 7, which extend through the bottom wall of the receptacle. Arranged on the bottom of the receptacle and extending parallel one with the other are guide-tubes 8 and 9, in which plungers 10 and 11 are arranged to slide. The plunger 10 is provided with a pocket 12 to receive salt discharged through the opening 6, and when in normal position or in position to receive the salt the opening of said pocket will be upward, as indicated in Fig. 4. It is designed, however, that the pocket shall be inverted when it reaches the forward end of the guide-tube, so as to discharge the salt into the can. As a means for inverting the pocket I provide the plunger 10 with a spirally-disposed channel 13, into which a pin 14, attached to a wall of the guide-tube, extends.

From one end of the plunger 10 an arm 15 extends downward through a longitudinal slot 16 in a projection 17 from one end of the guide-tube. This arm has loose connection with the plunger, so that the plunger may rotate relatively thereto. From the lower end of the arm 15 a pitman 18 extends to a connection with a wrist-pin 19, connected to the crank-disks 20 and 21, said crank-disk 20 being attached to the lower end of the shaft 2, while the crank-disk 21 is attached to a shaft 22, having bearings in a frame 23, extending underneath the machine, and attached to the lower end of this shaft 23 is a band-wheel 24.

Arranged between a cap 25, secured in one end of the guide-tube 9 and the adjacent end of the plunger 11, is a spring 26, designed to force the said plunger 11 outward, as will be hereinafter described. Movable through an opening in the guide-tube 9 and across the same forward of the plunger 11 is a stop-gate 27. This stop-gate is attached to a stem 28, movable in an offset 29 of the frame, and it is forced forward into the tube by means of a spring 30, which engages at one end with said offset and at the other end with an enlarged portion of the stem.

Mounted on the upper surface of the disk 20 and having a slight adjustment thereon is a cam-finger 31, designed to engage with a finger 32, extended downward from the plunger 11. As here shown, the finger 32 is connected to an arm 33, which has a collar connection with the inner end of the plunger 11, and this arm is movable in guideways 34 on the lower side of the tube 9. It will be seen that the tube 9 at its lower portion has a longitudinal slot to permit of the movements of the plunger through the medium of the arm.

Extended downward from the stem 28 is a finger 35, provided with a roller 36 at its lower end, which bears against the periphery of the disk 20. The periphery of this disk is provided at one side with a flattened surface 37, which when the finger 35 is in engagement therewith will permit the gate to pass into and across the tube, forming an abutment against which the salt is pressed by a forward movement of the plunger 11. As soon, however, as the circular surface of the disk 20 engages with said finger 35 the gate will be moved outward and so held until the disk makes nearly a complete rotation or until the flat surface is again presented to the finger 35, when the gate will move inward during

the back motion of the plunger, said back motion being imparted to the plunger by means of the cam 31, engaging with the finger 32. When the gate is in this outer position, the spring 26 will force the plunger quickly outward and discharge the salt into the cans. It is not essential, however, that both plungers be in operation at one time, as either one may be operated alone.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A salting-machine comprising a salt receptacle or holder, rotary stirrers in the receptacle or holder, discharge-plungers for discharging salt received from the receptacle, a movable barrier forward of one of the plungers, and means for moving the barrier, substantially as specified.

2. In a salt-machine, a receptacle for salt having an opening in its bottom wall, a guide-tube arranged on the under side of the receptacle, a barrier movable transversely in the tube, means for moving the barrier, a plunger, and means for rapidly actuating said plunger for forcing salt from the tube, substantially as specified.

3. In a salting-machine, a receptacle for salt, a shaft arranged vertically in the receptacle, stirrers mounted on said shaft, scrapers mounted on the shaft, a disk mounted on the lower end of said shaft, a guide-tube on the bottom of the receptacle and communicating therewith, a plunger in said guide-tube, a finger having connection with the plunger, a cam carried by the disk for engaging with said finger, a gate movable transversely in the guide-tube, a finger extended downward from said gate and having operative connection with the disk, and a spring for moving the gate inward, substantially as specified.

4. The combination with a receiver, a compacting and discharging plunger movable in the receiver, a movable abutment forming in one position a wall or barrier across the receiver, means for operating the abutment, means for moving the plunger toward the abutment when the latter is in position across the receiver, and means serving to give a rapid discharge movement to the plunger when the abutment is withdrawn, substantially as specified.

5. The combination with a receiver, a compacting and discharging plunger movable in the receiver, a movable abutment forming in one position a wall or barrier across the receiver, means for operating the abutment, means for moving the plunger toward the abutment when the latter is positioned across the receiver, and a spring serving to give a discharge movement to the plunger when the abutment is withdrawn, substantially as specified.

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

JOHN W. GHEEN.

Witnesses:

FRANK SPITTLE,

R. A. HENDRICKS.