

No. 722,168.

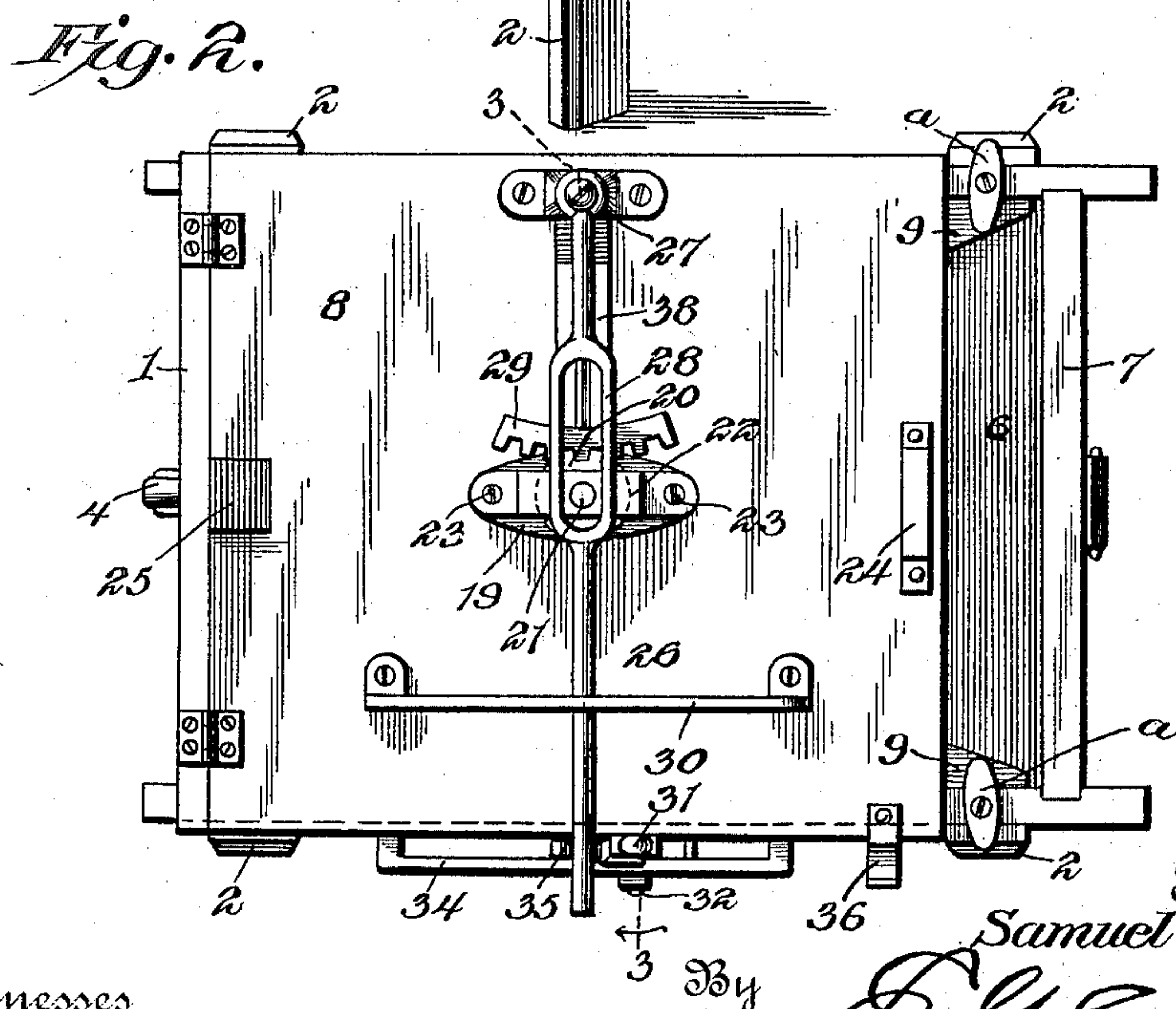
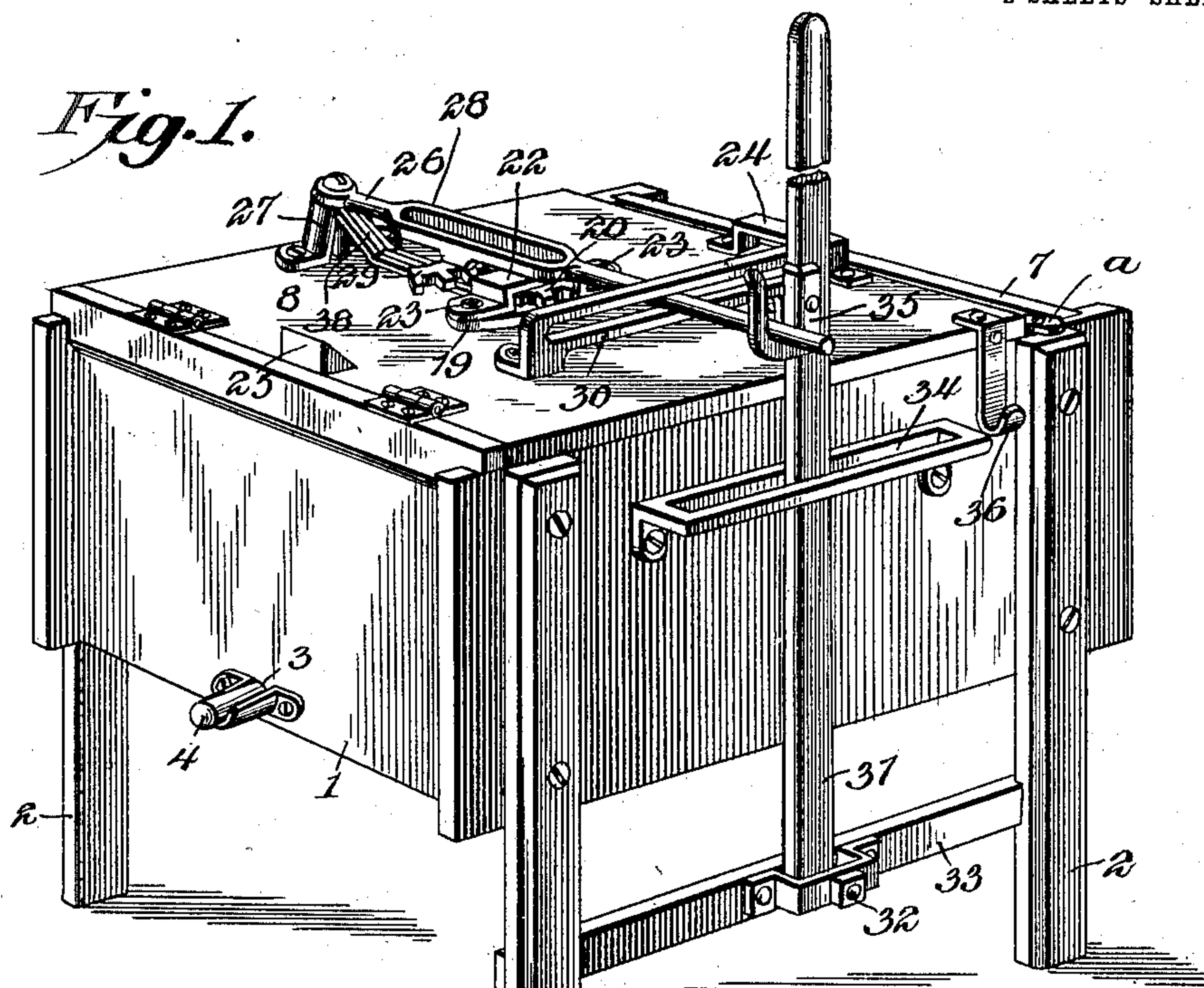
PATENTED MAR. 3, 1903.

S. WALTER.
WASHING MACHINE.

APPLICATION FILED JULY 31, 1902.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses
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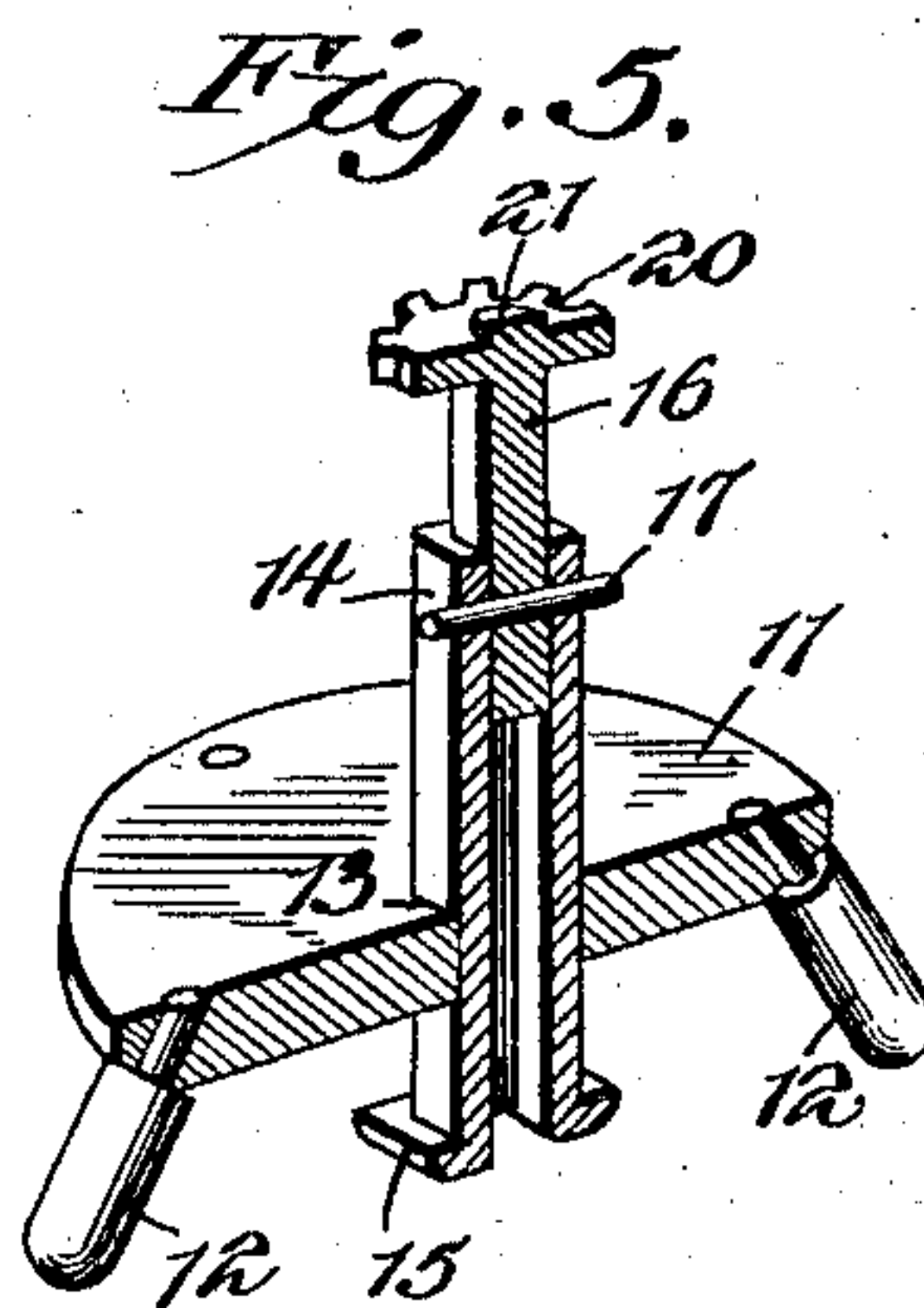
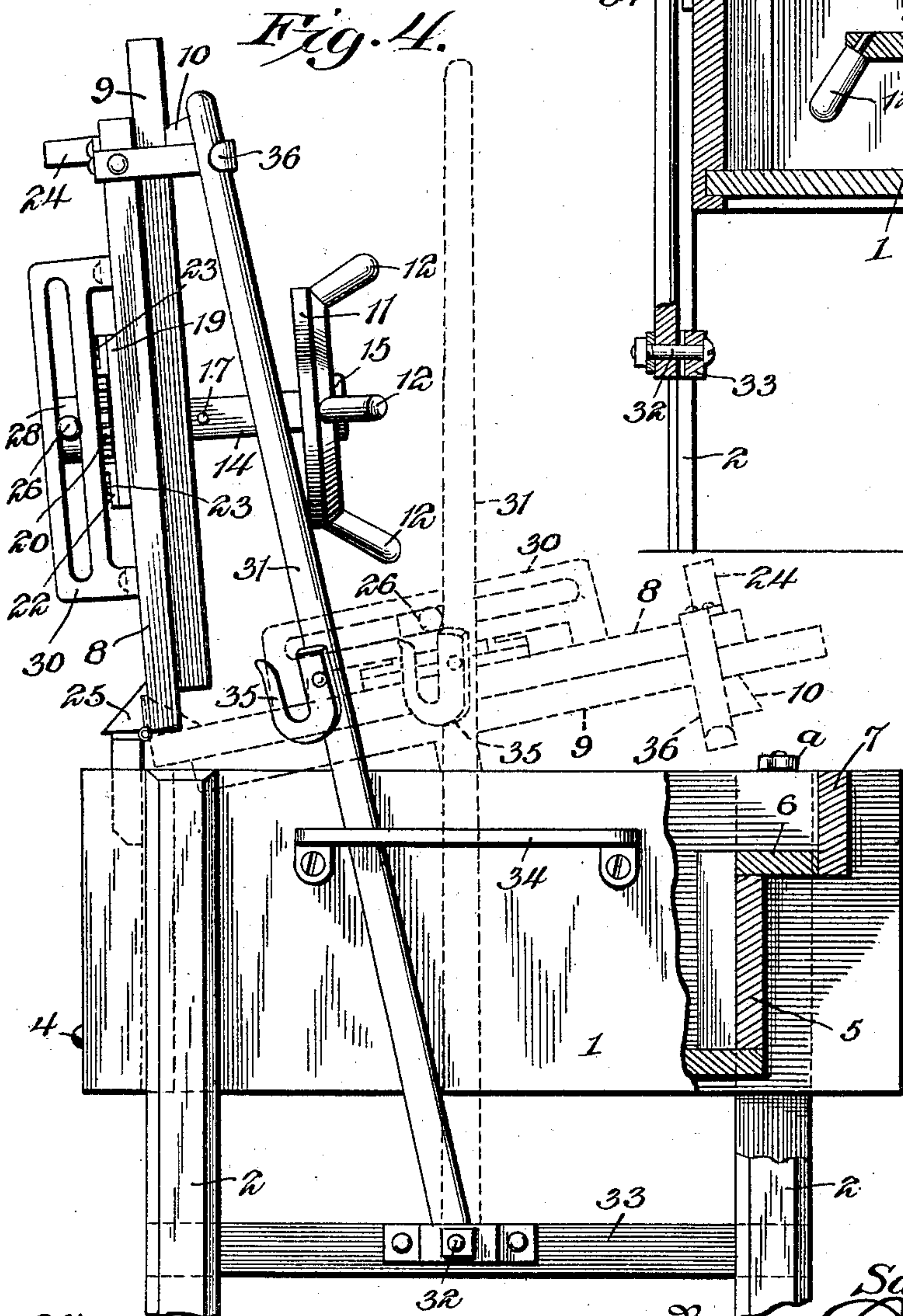
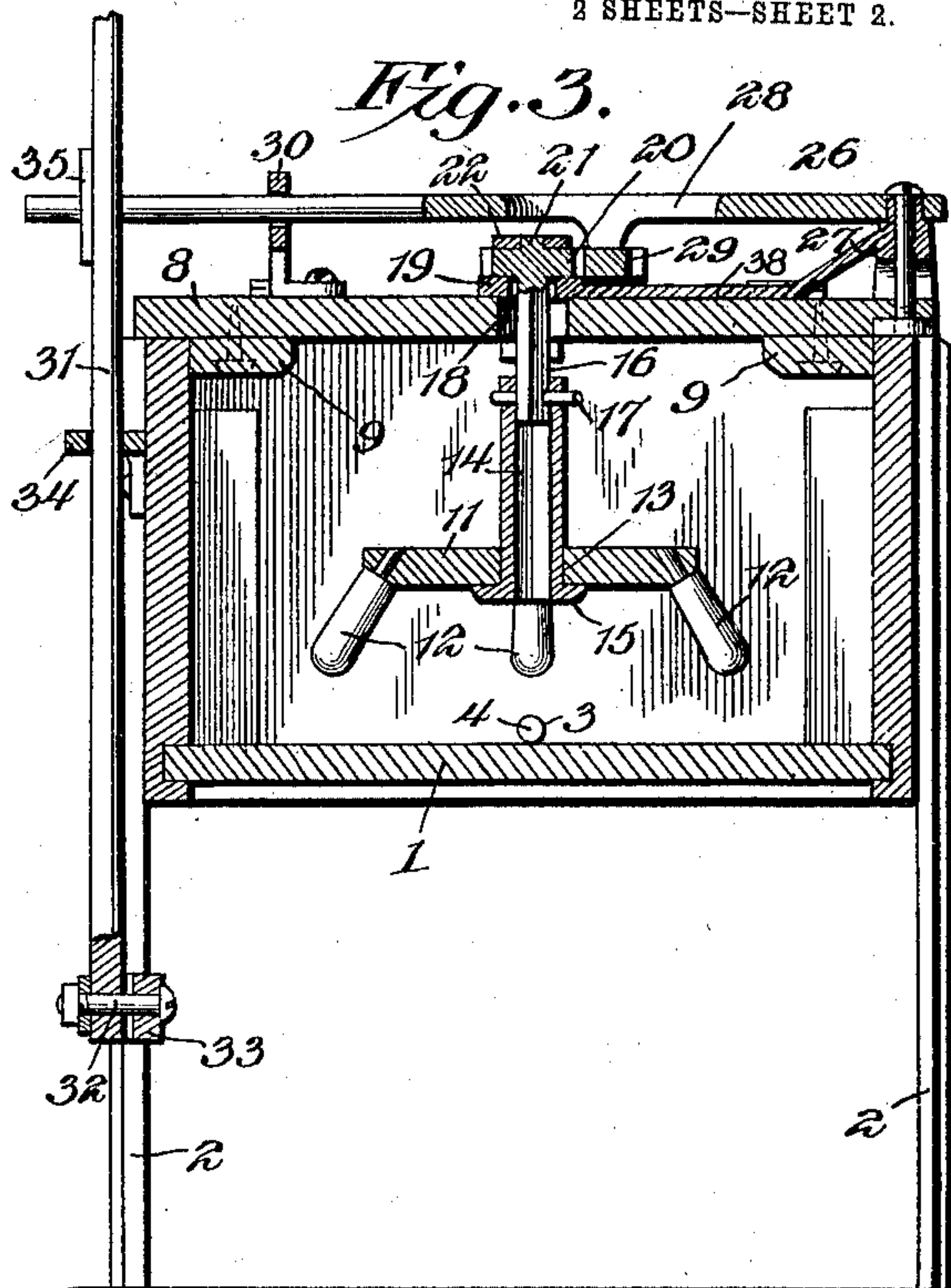
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UNITED STATES PATENT OFFICE.

SAMUEL WALTER, OF DALLAS CITY, ILLINOIS.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 722,168, dated March 3, 1903.

Application filed July 31, 1902. Serial No. 117,838. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL WALTER, a citizen of the United States, residing at Dallas City, in the county of Hancock and State of Illinois, have invented a new and useful Washing-Machine, of which the following is a specification.

This invention relates to washing-machines, and has for its object to provide improved means for operating the rubbing device, whereby the operator may stand at one side of the machine in a natural easy position without bending over the top thereof.

The invention also has for its object to provide means for detachably connecting a controlling or operating lever at one side of the washing-machine body with a lever mounted on the lid and connected with the rubbing device and to automatically disconnect such levers when the lid is raised and to similarly reengage the parts when the lid is closed.

With these and other objects in view the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size, and minor details may be made within the scope of the claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings, Figure 1 is a perspective view of a washing-machine embodying the features of the present invention. Fig. 2 is a top plan view thereof. Fig. 3 is a transverse sectional view taken on the line 3 3 of Fig. 2. Fig. 4 is a side elevation of the machine with the lid open to its limit, the lid also being shown in dotted lines in an intermediate position and portions being broken away to show the form of the front of the tub. Fig. 5 is a detail sectional perspective view of the rubbing device.

Like characters of reference designate corresponding parts in all of the figures of the drawings.

The present machine embodies a tub 1, preferably rectangular in form and supported upon suitable leg-standards 2. The back of the tub is provided with a suitable drain-opening 3, which is normally closed by means

of a plug 4. As shown in Fig. 4, the front of the tub is disposed inwardly from or in rear of the front extremities of the longitudinal sides of the tub and is terminated short of the top edges thereof, there being a horizontal sill 6 resting upon and projected in advance of the front and an upstanding cross-bar 7 at the outer edge of the sill and intended for the support of a clothes-wringer. The lid or cover 8 is hinged to the back of the tub and is provided upon its under side with opposite cleats or bars 9 to stiffen and prevent warping of the lid and there also being an end cross-bar 10 at the free front end of the lid to close the space between the sill 6 and the front of the lid. The front end of the cleats or bars 9 are projected beyond the front of the lid and are terminated short of the upstanding cross-bar 7 and are designed to be engaged by turn-buttons *a*, which are mounted upon the top edges of the sides of the tub, so that they may be turned across the projections or forward ends of the cleats or bars 9, so as to lock the lid when closed.

Within the body of the tub there is a rubbing device consisting of a flat circular body 11, which is provided at its periphery with pendent outwardly-inclined projections 12 and has a central polygonal opening 13 to receive a tubular open-ended stem 14, which is provided at its lower end with a peripheral flange 15, so as to limit the downward movement of the rubber, which is otherwise free to move vertically upon the stem. A polygonal stub-shaft 16 is received within the upper open end of the stem and is detachably connected thereto by means of a pin or key 17, which is set transversely through the two members. The stub-shaft is projected upwardly through an opening 18 in the lid or cover and also through a wear-plate 19, secured to the outer side of the lid, the upper end portion of the shaft being provided with a gear 20, which works across the upper side of the wear-plate and is provided at its center with an upstanding projection or journal 21, that has a bearing in a substantially U-shaped bracket 22, secured to the wear-plate and straddling the gear. It will here be observed that the fastenings 23 are common to the wear-plate and the bracket for securing the same to the lid or cover. By this con-

struction and arrangement of parts it will be seen that the rubbing device may be conveniently disconnected from the drive-gear without removing or interfering with the latter, and the rubber proper is yieldable vertically upon its stem, but is held against independent rotation thereon by reason of the stem being polygonal and fitting in a polygonal opening in the rubber.

At the front end of the lid there is a suitable loop-shaped handle 24 for convenience in opening the lid, and at the rear or hinged end of the lid there is a block or shoulder 25, which is adapted to engage the back of the tub, so as to support the lid when open, and thereby relieve considerable strain from the hinges.

For rotating the drive-gear 20 there is a horizontally-swinging arm 26, which works across the top of the lid and has one end fulcrumed upon the bracket 27, secured to the top of the lid, the intermediate portion of the arm which works across the gear being in the form of a loop 28, so as to increase the width of the arm at this point without adding to the weight thereof, and an arcuate toothed cross-head 29 extends across the lower side of this laterally-enlarged portion of the arm, with its teeth in mesh with the gear, so that by swinging the arm back and forth the rubber may be quickly and effectively oscillated. The free end of the lever projects a suitable distance beyond the tub and works in the slot of an upstanding longitudinally-slotted guide-bracket 30, secured to the top of the lid. To conveniently manipulate the swinging arm, there is provided an upstanding controlling-lever 31, which has its lower end fulcrumed, as at 32, upon a cross-bar 33, connecting the adjacent front and rear legs of the tub, the intermediate portion of the lever working through the slot of a longitudinally-slotted guide-bracket 34, which is projected laterally from the adjacent side of the tub. The upper end of the lever is projected a suitable distance above the top of the tub and is shaped to form a convenient handle and to provide a guide for a purpose hereinafter explained. The free end of the swinging arm projects transversely across the lever and is fitted loosely in a seat consisting of a U-shaped bracket 35, carried by the lever. By this arrangement of parts it is apparent that the operator can stand at one side of the machine and conveniently manipulate the same by swinging the lever 31 backward and forward.

A very important feature of the present invention resides in the fact that the seat or bracket 35 for the reception of the arm 26 is open at its top, whereby when the lid is swung open the arm readily rises out of the seat or bracket, and thereby is automatically disconnected from the lever, and the latter does not interfere in any manner whatsoever with the convenient opening of the lid. When the lid is again closed, the arm 26 drops down into the seat or bracket 35, being guided to the

latter by the projecting upper or handle portion of the lever 31, and thereby is automatically connected with the lever.

To insure an effective engagement of the arm with the seat when the lid is being closed, it is necessary to have the lever assume a rearward inclination when the lid is open, and therefore a clip or stirrup 36 is secured to the front end portion of the lid, so as to depend at one side thereof adjacent to the lever, said clip being in the form of a pendent hook which is designed to engage the lever and swing the same rearwardly when the lid is being opened and also holds the lever in its rearward inclined position so long as the lid remains open.

Although the present device has been shown and described as a washing-machine, it will of course be understood that the operating mechanism may be employed for manipulating churn-dashers as well as washing-machine rubbers.

Instead of having the wear-plate 19 and the bracket 27 separate, I prefer to connect the same by means of a brace 38, integral therewith, the greater portion of which lies flat against the top of the lid, as best indicated in Fig. 3, with its rear portion inclined upwardly to the upper portion of the bracket 27, so as to effectively brace the same.

What I claim is—

1. In a washing-machine, the combination with a tub having a hinged lid, of a rubber, an operating device carried by the lid and provided with a projecting oscillatory arm, and an upstanding operating-lever provided between its ends with an open top seat receiving the arm of the operating device, said seat being arranged at one side of the lever, whereby the upper portion of the lever is adapted to serve both as a handle and a guide for causing the arm to reengage the seat when the lid is closed, substantially as described.

2. In a washing-machine, the combination with a tub having a hinged lid, of a rubber, an operating device carried by the lid, an upstanding manipulating-lever fulcrumed upon the body, connecting means between the lever and the operating device which is automatically disconnected when the lid is opened, and means for throwing the lever to its rearward limit when the lid is opened.

3. In a washing-machine, the combination with a tub having a hinged lid, of a rubber, an operating device carried by the lid, an upstanding manipulating-lever fulcrumed upon the body, connecting means between the lever and the operating device which is automatically disconnected when the lid is opened, and means carried by the lid for automatically throwing the lever to its rearward limit when the lid is opened.

4. In a washing-machine, the combination with a tub having a hinged lid, of a rubber, an operating device carried by the lid, an upstanding manipulating-lever fulcrumed upon the body, connecting means between the le-

ver and the operating device which is automatically disconnected when the lid is opened, and means for automatically throwing the lever to its rearward limit when the lid is opened,

5 consisting of a hook-shaped clip hung from one side of the lid and disposed to engage the lever and swing the same to its rearward limit.

10 5. In a washing-machine, the combination of a tub having a hinged lid, of a rubber within the tub, an operating device mounted upon the lid and including a horizontal swinging arm, an upstanding lever fulcrumed upon the body and having an open-top seat loosely receiving the free end portion of the

15 arm, and a projection carried by the lid and disposed to engage the lever and force the same to its rearward limit when the lid is opened.

20 6. In a washing-machine, the combination with a tub having a hinged lid, of a rubber, an operating device carried by the lid, and provided with an oscillatory element, an operating-lever fulcrumed independently of the lid and provided between its ends with means

25 for detachably receiving the oscillatory element and having a guiding portion, and means for automatically oscillating the lever when the lid is opened for arranging the guide

in position for directing the oscillatory element into engagement with the said lever, 30 substantially as described.

7. In a washing-machine, the combination with a tub having a hinged lid which is provided with a central opening, a rubber having the stem projected through the opening, 35 a gear upon the outer end of the stem, a horizontally-swinging arm fulcrumed upon the top of the lid and provided with a toothed cross-head in mesh with the gear, a slotted guide for the free end portion of the arm, an 40 upstanding lever fulcrumed upon the tub and rising above the top thereof, a slotted guide carried by the tub and receiving the lever, an open-top seat carried by the lever and loosely receiving the free end portion of 45 the arm, and a projection carried by the lid and disposed to engage the lever and force the same to its rearward limit when the lid is opened.

In testimony that I claim the foregoing as 50 my own I have hereto affixed my signature in the presence of two witnesses.

SAMUEL WALTER.

Witnesses:

WM. N. WALTER,
FREEMAN WALTER.