(No Model.)

W. R. RAMEY.

MOP OR CLOTHES WRINGER.

No. 575,510. Patented Jan. 19, 1897.

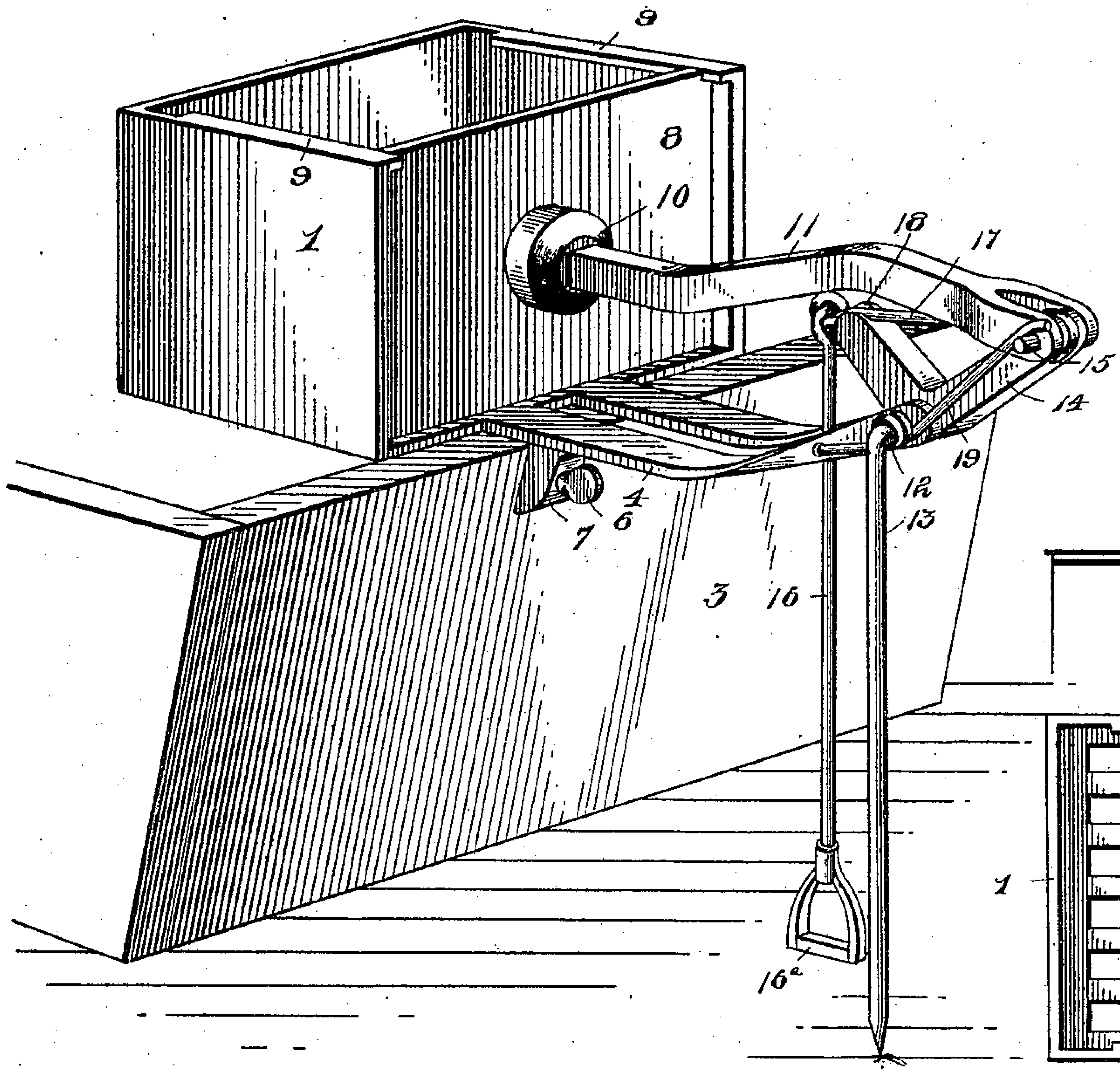
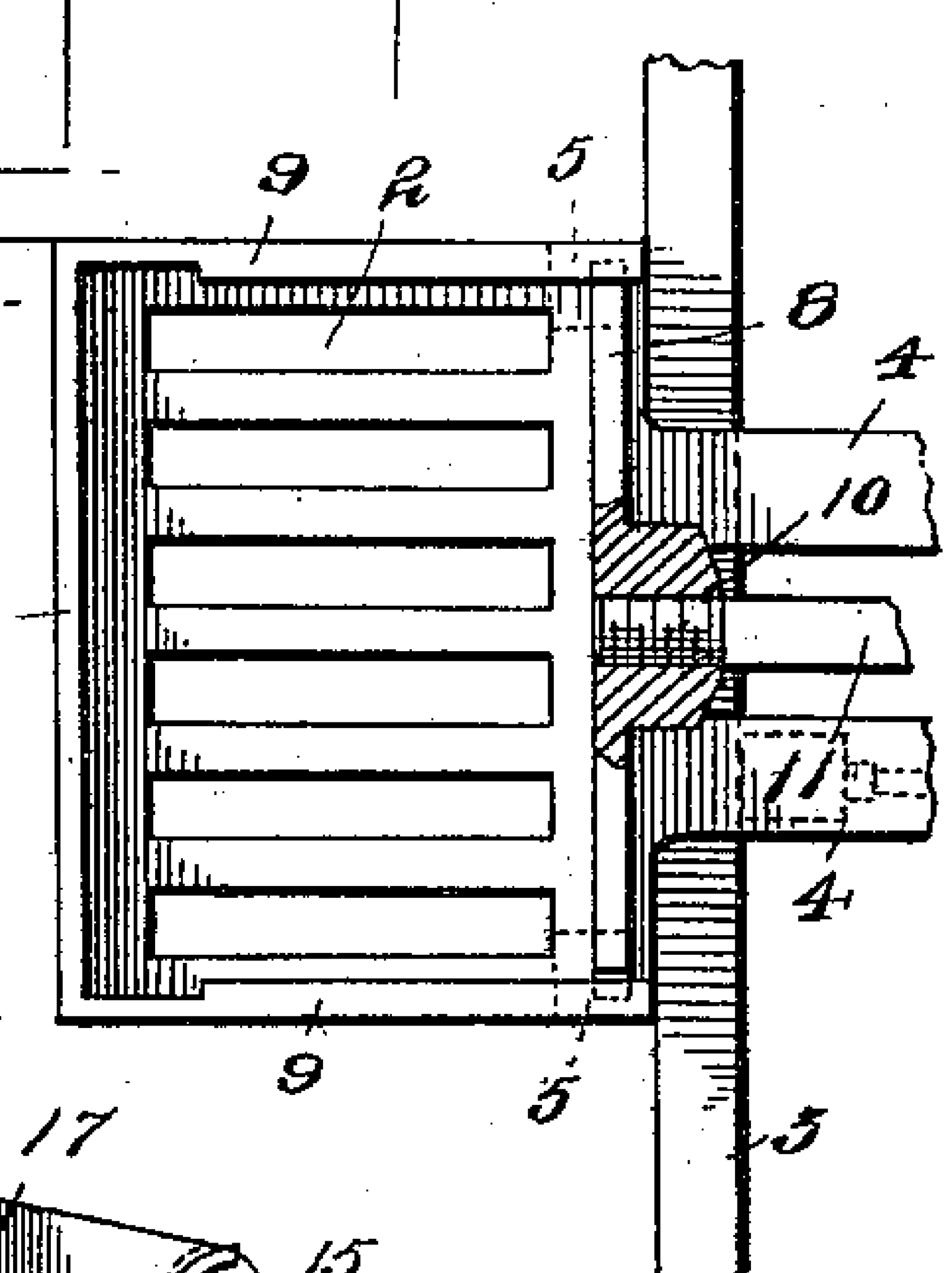


FIG. 1.

FIG. 3.



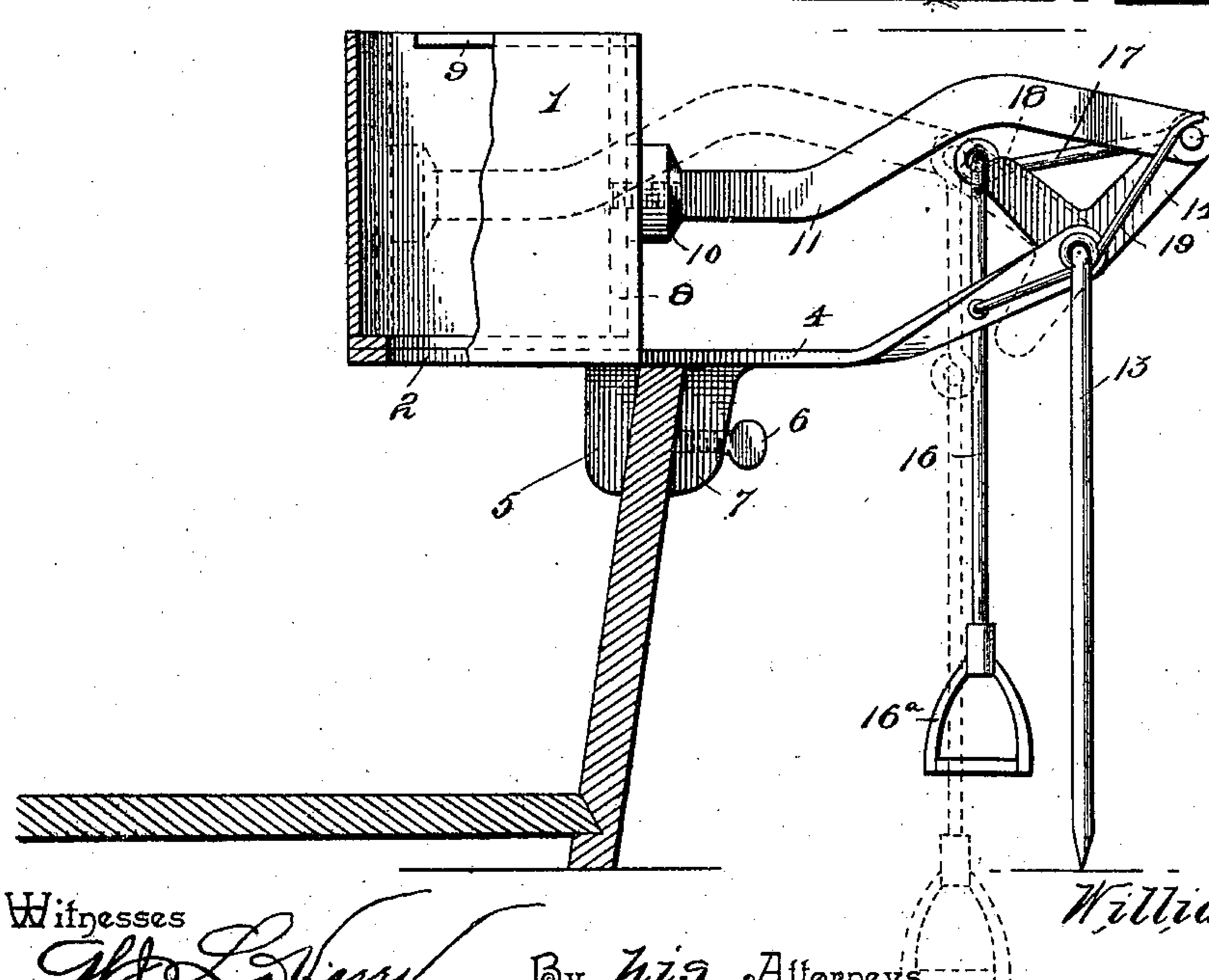


FIG. 2.

Witnesses
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By his Attorneys,

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UNITED STATES PATENT OFFICE.

WILLIAM R. RAMEY, OF WAVERLY, KANSAS.

MOP OR CLOTHES WRINGER.

SPECIFICATION forming part of Letters Patent No. 575,510, dated January 19, 1897.

Application filed November 4, 1895. Serial No. 567,943. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM R. RAMEY, a citizen of the United States, residing at Waverly, in the county of Coffey and State of Kansas, have invented certain new and useful Improvements in Mop or Clothes Wringers; and I do 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, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

The invention relates to improvements in mop or clothes wringers.

The object of the present invention is to improve the construction of mop or clothes wringers and to provide a simple, inexpensive, and efficient one, capable of enabling water to be rapidly and thoroughly expelled from mop-cloths or clothes.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a perspective view of a mop or clothes wringer constructed in accordance with this invention and shown applied to a receptacle. Fig. 2 is a vertical sectional view of the same. Fig. 3 is a plan view of the compression-box, the plunger being partly in section to illustrate the construction of the socket.

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

1 designates a rectangular compression-box having an open front and provided at its bottom with slots 2, so that water squeezed from mop-cloths or clothes may readily pass through it into a receptacle 3, upon which the compression-box is mounted. A bifurcated arm 4 extends forward substantially horizontally from the front of the compression-box at the bottom thereof, and it forms a support for the operating mechanism.

A pair of lugs 5 for engaging the inner face of one side of the receptacle 3, depends from the compression-box at the front and at opposite sides thereof, and the outer face of such side of the receptacle 3 is engaged by a set-screw 6, which is arranged in a threaded perforation of a lug 7, depending from one of the sides of the bifurcated arm 4.

A horizontally-movable rectangular plunger 8 operates in the compression-box, and it is held against upward movement by horizontal flanges 9, located at the upper edges of the sides of the compression-box and extending inward therefrom. The plunger is provided at its front with a threaded socket 10, and the flanges 9 terminate short of the back of the compression box or receptacle to enable the plunger, when moved rearward beyond the flanges to the position illustrated in dotted lines in Fig. 1 of the accompanying drawings, to be removed from the compression-box to enable it to be rotated and adjusted on a threaded end of a plunger-rod 11, whereby the plunger is adjusted to suit the quantity of clothes or the size of a mop-cloth to be squeezed.

The outer terminals of the sides of the bifurcated arm 4 are given a quarter-turn and are perforated for the reception of a horizontal pivot 12, preferably constructed integral with a brace 13 and formed by bending the upper end thereof at right angles, and the brace or rod 13, which rests upon a floor or other supporting-surface, supports the outer end of the arm 4.

A bell-crank lever 14 is fulcrumed at its angle on the pivot 12 in an opening or bifurcation of the arm 4. The upper arm of the bell-crank lever is connected by a pivot 15 with the outer end of the plunger-rod, the latter being bifurcated for the reception of the bell-crank lever. The plunger-rod and the upper arm of the bell-crank lever form a pair of toggle-levers, and it will be apparent that this construction will enable great power to be applied in squeezing mop-cloths or clothes.

A depending operating-rod 16, which is provided at its lower end with a stirrup 16^a for the reception of the foot of the operator, is connected with the knee of the toggle-levers by a link 17, which is provided at its upper outer end with an eye for the reception of the pivot 15, and the lower arm of the bell-crank lever is provided at its end with a notch 18, receiving the inner or lower end of the link

17 when the parts are arranged in the position illustrated in Fig. 1 of the accompanying drawings. The depression of the stirrup causes a downward movement of the link 17, which operates in a twofold manner, *i. e.*, carrying with it the lower arm of the bell-crank lever, thus forcing the knee of the toggle-lever inward and at the same time pulling directly at the knee of the levers, whereby the plunger is advanced into the compression-box and is adapted to squeeze a mop-cloth or clothes. After the plunger has advanced to nearly the limit of its movement in the compression-box the pull on the knee of the toggle-levers becomes directly downward, as illustrated in dotted lines in Fig. 1 of the accompanying drawings. When the stirrup is released, the parts are retracted by a spring 19, comprising a substantially centrally-arranged coil and a pair of oppositely-disposed arms. The coil is mounted on the pivot 12 of the brace 13, and one arm is connected with the adjacent side of the bifurcated arm 4, and the other arm is connected with the knee of the toggle-levers by engaging the pivot 15.

It will be seen that the wringer is simple and comparatively inexpensive in construction, that it is susceptible of easy operation, and that it is capable of producing great pressure for squeezing clothes or mop-cloths.

What I claim is—

1. In a device of the class described, the combination of a compression-box having means for detachably securing it to the edge of a tub, provided at its bottom with slots or openings and having at the upper edges of its sides inwardly-extending horizontal flanges terminating short of the back of the compression-box, a plunger arranged within the compression-box, retained against upward movement of the said flanges and adapted to be introduced into and removed from the compression-box through the spaces between the rear end of the flanges and the back of the box, said plunger being provided with a threaded socket, a centrally-arranged plunger-rod having a threaded inner end detachably fitting in the said socket and adjustably connected with the plunger, and means for reciprocating the plunger-rod, substantially as and for the purpose described.

2. In a device of the class described, the combination of a compression-box, a horizontally-movable plunger arranged within the box, a bifurcated arm extending forward from the bottom of the compression-box, a brace supporting the outer end of the arm and provided with a pivot extending across the bifurcation, a bell-crank lever fulcrumed at its angle on said pivot and having its lower arm notched, a plunger-rod connected with the plunger and with the upper arm of the bell-crank lever, the plunger-rod and the upper arm of the bell-crank lever forming a pair of toggle-levers, a link connected with the knee of the toggle-levers, extending inward therefrom and arranged to be supported by the notched end of the lower arm of the bell-crank lever, and an operating-rod depending from and connected with the link, substantially as and for the purpose described.

3. In a device of the class described, the combination of a compression-box, a horizontally-movable plunger arranged within the box, a bifurcated arm extending forward from the bottom of the compression-box, a brace supporting the outer end of the arm and provided with a pivot extending across the bifurcation, a bell-crank lever fulcrumed at its angle on said pivot and having its lower arm notched, a plunger-rod connected with the plunger and with the upper arm of the bell-crank lever, the plunger-rod and the upper arm of the bell-crank lever forming a pair of toggle-levers, a link connected with the knee of the toggle-levers, extending inward therefrom and arranged to be supported by the notched end of the lower arm of the bell-crank lever, an operating-rod depending from and connected with the link, and a spring provided, intermediate of its ends with a coil arranged on the pivot of the brace, said spring having one end connected with the knee of the toggle-levers, and its other end connected with the bifurcated arm, substantially as described.

4. In a device of the class described, the combination of a compression-box, a horizontally-movable plunger arranged within the compression-box, a plunger-rod extending outward therefrom and disposed substantially horizontally, a bell-crank lever fulcrumed at its angle on a suitable support and having its upper arm connected with the plunger-rod and coöperating with the same to form a pair of toggle-levers, the lower arm of the bell-crank lever being notched, a link extending inward from the knee of the toggle-levers and arranged to be supported by the notched arm of the bell-crank lever, and an operating-rod depending from the link, substantialy as and for the purpose described.

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

WILLIAM R. RAMEY.

Witnesses:
S. F. STEVENS,
CLINTON BEASLY.