

(No Model.)

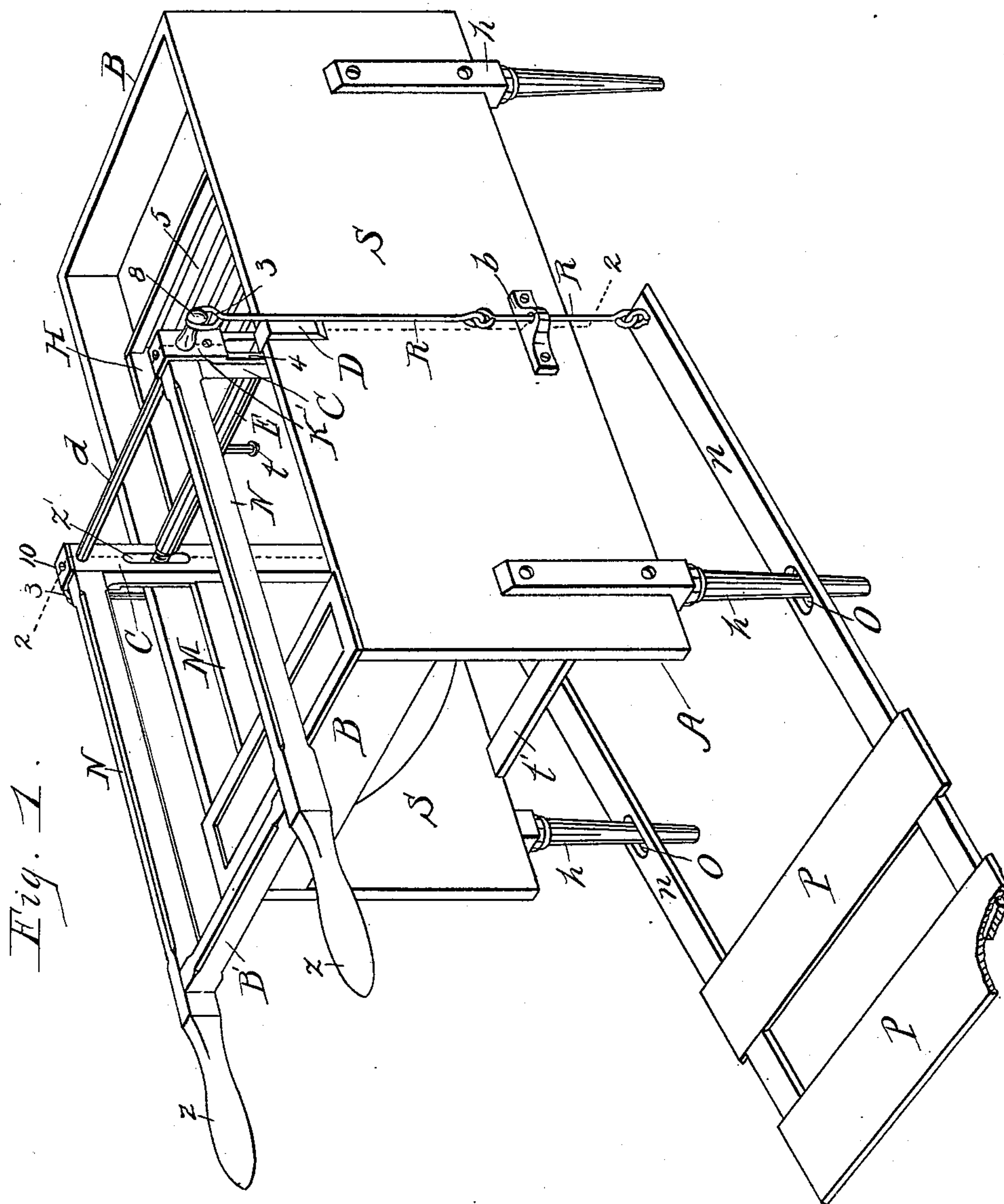
2 Sheets—Sheet 1.

J. J. ANDREWS.

WASHING MACHINE.

No. 372,588.

Patented Nov. 1, 1887.



ATTEST.

C. W. Russell
B. F. Wheeler.

INVENTOR.

J. J. Andrews
By
Roscoe B. Wheeler
att'y

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Fig. 2.

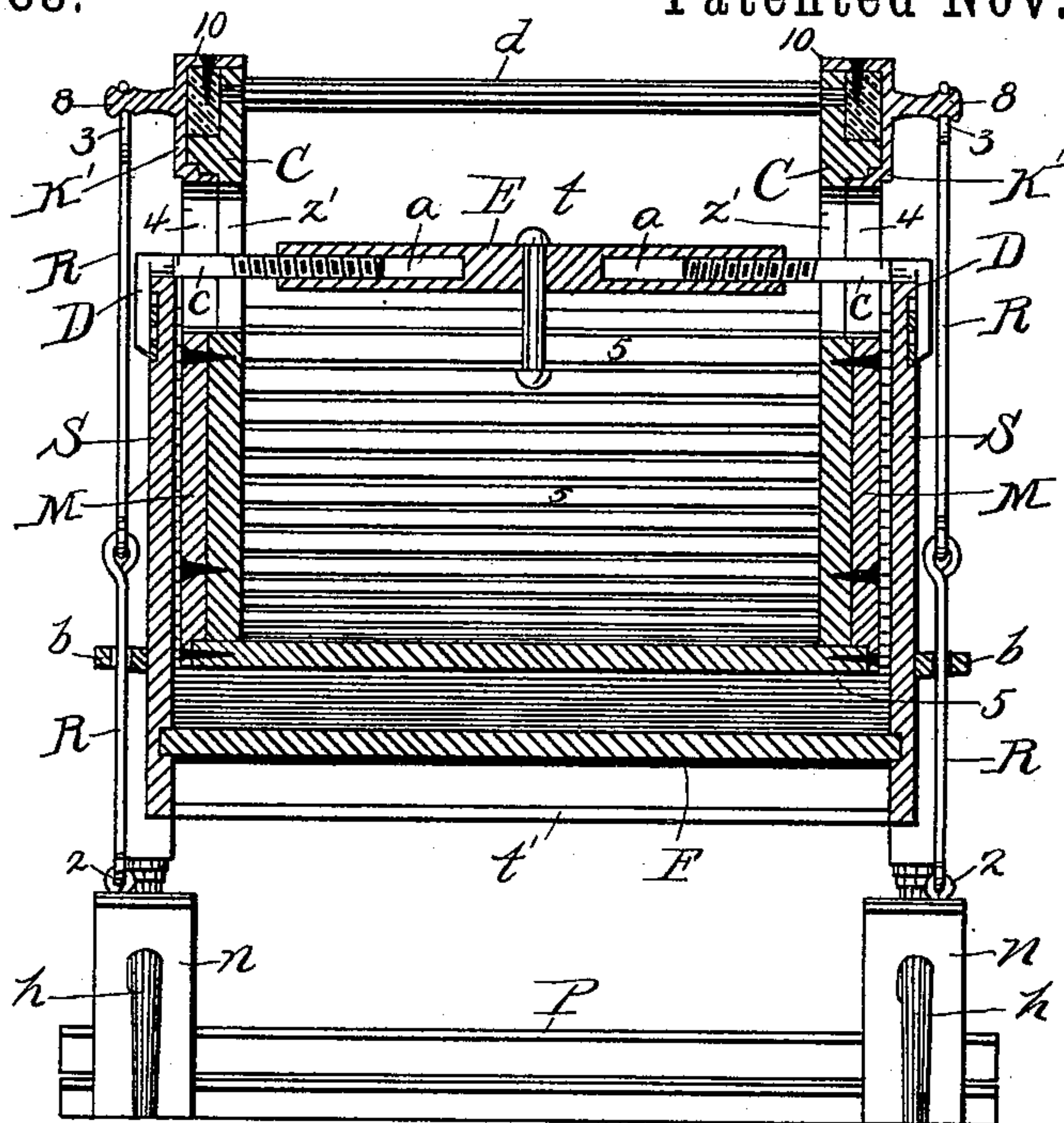
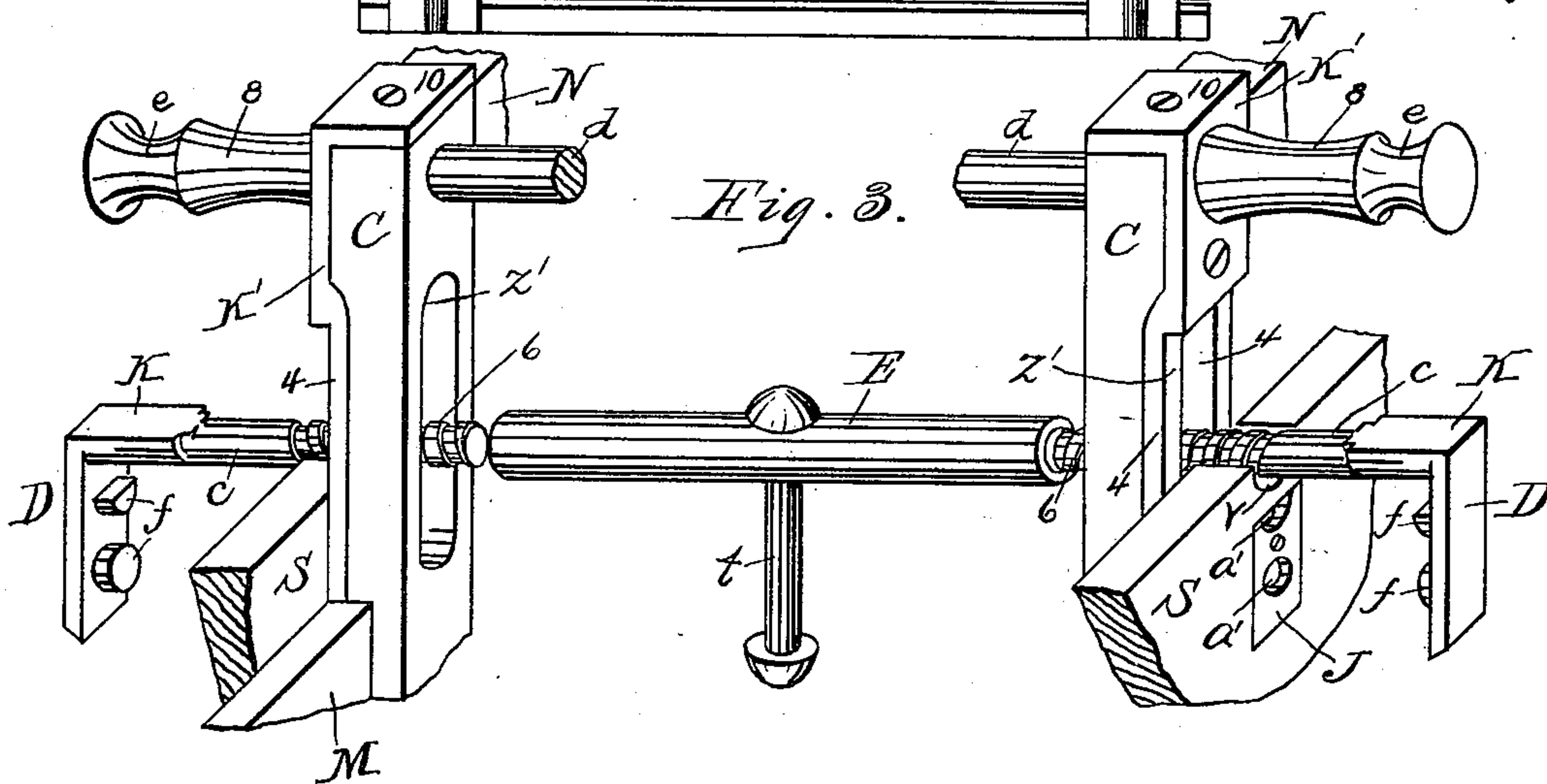


Fig. 3.



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UNITED STATES PATENT OFFICE.

JOHN J. ANDREWS, OF PORT HURON, MICHIGAN, ASSIGNOR OF ONE HALF
TO NICHOLAS JOHNSTON, OF SAME PLACE.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 372,538, dated November 1, 1887.

Application filed May 6, 1887. Serial No. 237,316. (No model.)

To all whom it may concern:

Be it known that I, JOHN J. ANDREWS, a British subject, residing at Port Huron, in the county of St. Clair and State of Michigan, have invented certain new and useful Improvements in Washing-Machines; 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 letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to the means employed for locking detachably the rubbing-head to the tub or body of the machine; also, in the construction of parts for oscillating the oscillating rubbing-head, as hereinafter set forth, and pointed out in the claims.

In the drawings forming a part of the specification, Figure 1 is a perspective of a washing-machine embodying my invention. Fig. 2 is a central cross section taken on the dotted line 2 of Fig. 1, looking toward the left. Fig. 3 is an enlarged perspective of the parts for coupling the oscillating head to the tub or body of the machine.

In the drawings, Fig. 1, A designates the machine. The body consists of the sides S, ends B, and corrugated or slated concave bottom F and legs h, all of which are constructed similar to machines of this class.

The rubbing or oscillating head H consists of sides M, with rounded lower edges coinciding with the circle of the bottom of the tub, and has the rubbing cleats or strips 5 attached to said rounded edges, all of which are common.

C C are uprights or arms attached to the inner faces of the sides M of the oscillating head, projecting above the upper edges of said sides, and having at said point oblong openings Z' Z'. (See Figs. 1 and 2.) To the outer face of said arms I secure the metal plates K' K' by means of screws. Each plate consists of the head 10, the horizontally-projecting arm 8, having the annular recesses e at the free end, and the vertical ribs 4 4, fitting over the outer corners of the arms C C and slightly into the openings Z' Z'. Said ribs are U-shaped in cross-section.

To the outer face of the sides S of the tub, near the top, I attach metal plates J J, each having chambers a' a'. (See Fig. 3.)

K K are elbow-arms having the rounded stems c, with screw-threaded ends 6, the thread of one being right-handed, the other left-handed, and D D are heads formed at right angles to the stems c, and have on their inner faces the lugs f f, which register with and enter the chambers a' a' when the parts are locked, as shown in Figs. 1 and 2. The upper edges of the sides S are cut out at V to receive the stems c, as shown in Fig. 3.

E is a locking-sleeve having a screw-threaded hole, a, in each end, the threads being cut right and left to receive the screw-threaded ends 6 of the stems c, as shown in Figs. 1 and 2, and t is a pin passing transversely through the sleeve E, by which said sleeve is revolved, for the purpose hereinafter specified.

N N are arms or levers having their rear ends attached firmly to the upper portion or ends of the vertical arms or uprights C C and at right angles thereto, extending outward over the machine, terminating with the handles Z Z. The levers near the handles are coupled together by the cross-bar B', and d is a rod coupled to the uprights C C over the sleeve E. (See Figs. 1 and 2.) Said rod prevents the uprights from spreading apart or approaching each other.

To obtain a downward pressure of the oscillating head to properly wash the garments, I employ the suspended platform consisting of the bars P and levers n. The levers are provided with holes O, through which the legs pass. The rear ends of the levers at 2 are coupled to the two part or jointed rods R. The lower section of each rod passes through the brackets b. The upper end of each of the upper sections is provided with a loop or ring, 3, which is made sufficiently large to pass freely over the free ends of the projecting metal arms 8, and lie, when engaged therewith, in the annular channels e, as shown in Figs. 1 and 2. A single rod may be used on each side instead of the jointed rods, and the brackets b may be dispensed with without departing from the nature of said feature of my invention.

The operations are as follows: The garments are placed in the tub in the usual way. The os-

cillating head is then placed in the tub over the garments, the head is moved along until the stems *c* of the elbow-irons drop into the channels *V*, the screw-threaded ends 6 being
 5 anchored to the sleeve *E*. Said sleeve is revolved in such a direction as will draw the threaded ends 6 into the sleeve, thereby advancing the heads *D* toward the plates *J* until
 10 the lugs *f* of said heads enter the chambers *a'* of the plates *J*, when the oscillating head will be firmly coupled to the tub, the stems *c* passing through the oblong openings *Z'* of the uprights *C*. Then by raising and lowering the handles *Z* the head *H* is caused to oscillate
 15 or rock on the stems *c*, the oblong openings *Z'* allowing the head *H* to rise and fall to accommodate it to the supply of garments being washed. The operator, to give the oscillating head a proper downward pressure, places a foot,
 20 or both feet, on the bars *P* of the platform, according to the amount of pressure desired. The long arms *N* give the operator a sufficient leverage to subject the garments to a strong rubbing-pressure.
 25 To detach the head *H* to remove the garments, the operator turns the sleeve *E* in such a direction as will cause the heads *D* of the elbow-irons to move from the sides of the ma-

chine sufficiently to draw the lugs *f* out of the chambers *a'* *a'*, as shown in Fig. 3, when the
 30 oscillating head *H* may be turned over out of the tub at either end, the rods *R* being first disengaged from the arms 8.

Having fully set forth my invention, what I claim as new, and desire to secure by Letters
 35 Patent, is—

1. In combination with the tub having the plates *J*, provided with openings *a'*, the oscillating head, the uprights having the openings *Z'*, the horizontal handle-frame, the plates *K'*,
 40 the elbow-irons provided with lugs *f*, and sleeve *E*, for locking said elbow-irons to the sides of the tub, as and for the purposes set forth.

2. In combination with the oscillating head
 45 having the uprights *C*, the metal plates *K'*, having the horizontal arms 8, and the suspended platform detachably coupled to the arms 8 by means of the rods *R*, as and for the purposes specified.
 50

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

JOHN J. ANDREWS.

Witnesses:

ALEXANDER PORTER,
 NICHOLAS JOHNSTON.