

J. C. FLOWERS.
WASHING MACHINE.
APPLICATION FILED JULY 11, 1907.

900,505.

Patented Oct. 6, 1908.

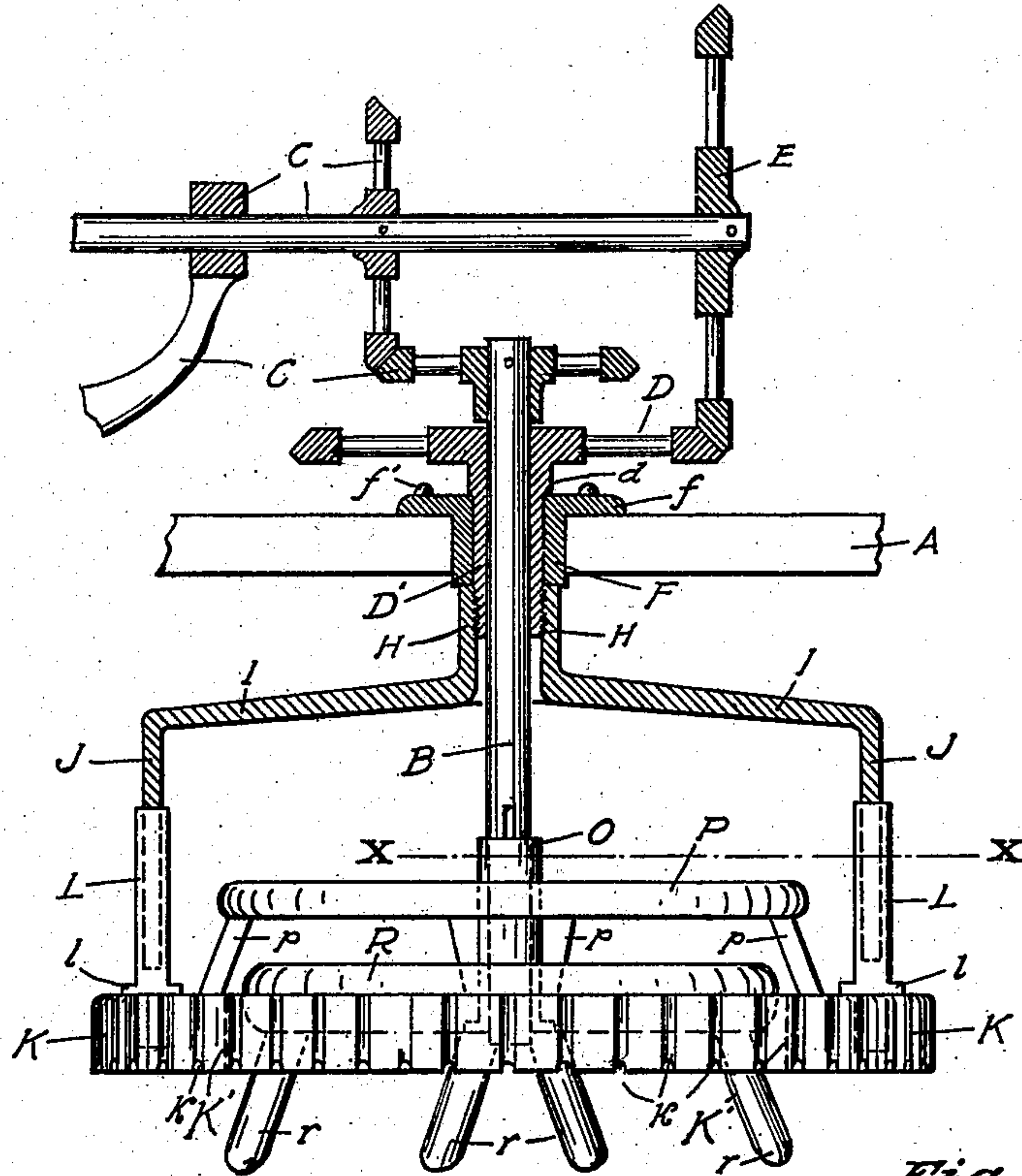


Fig. 1.

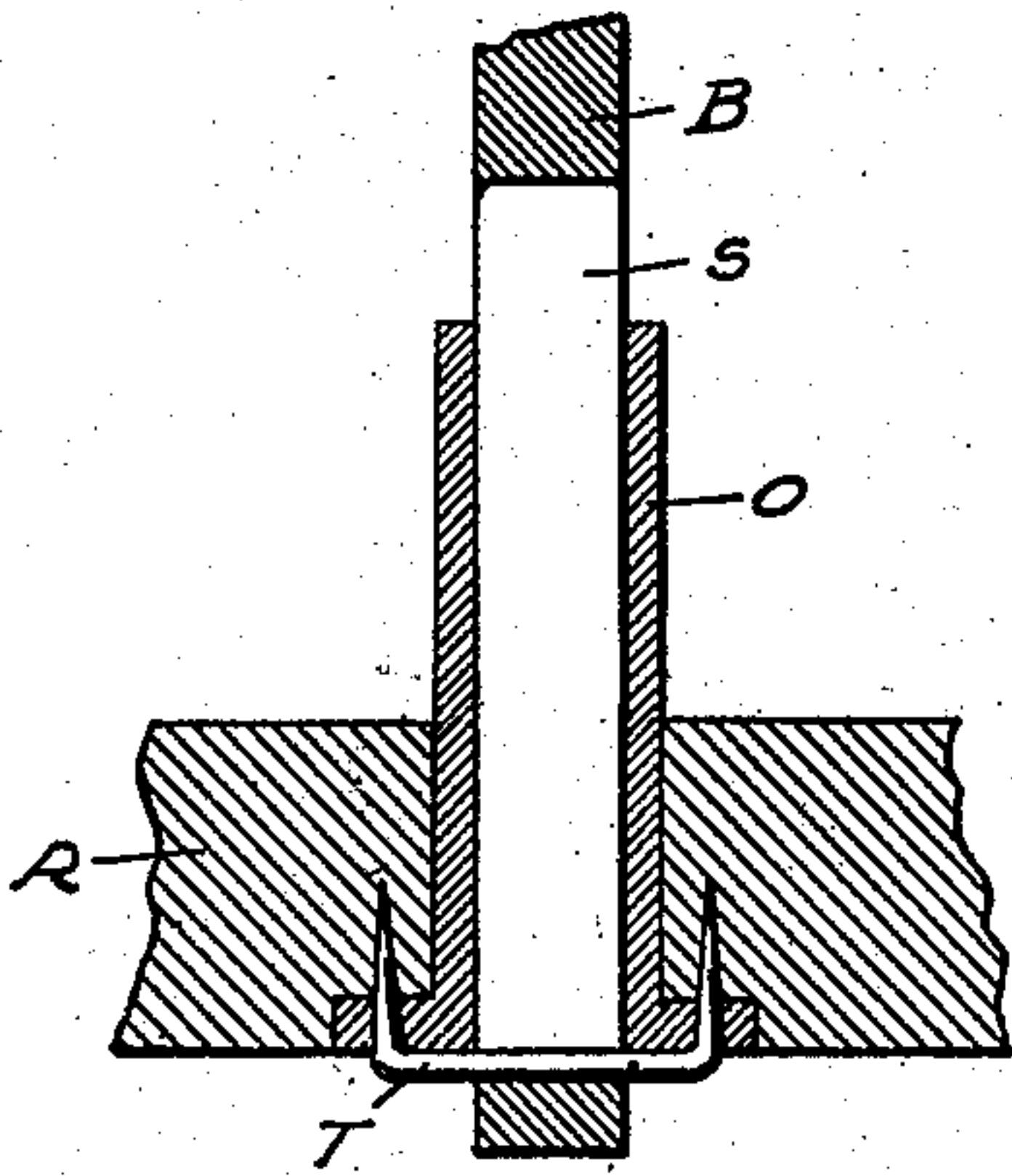


Fig. 3.

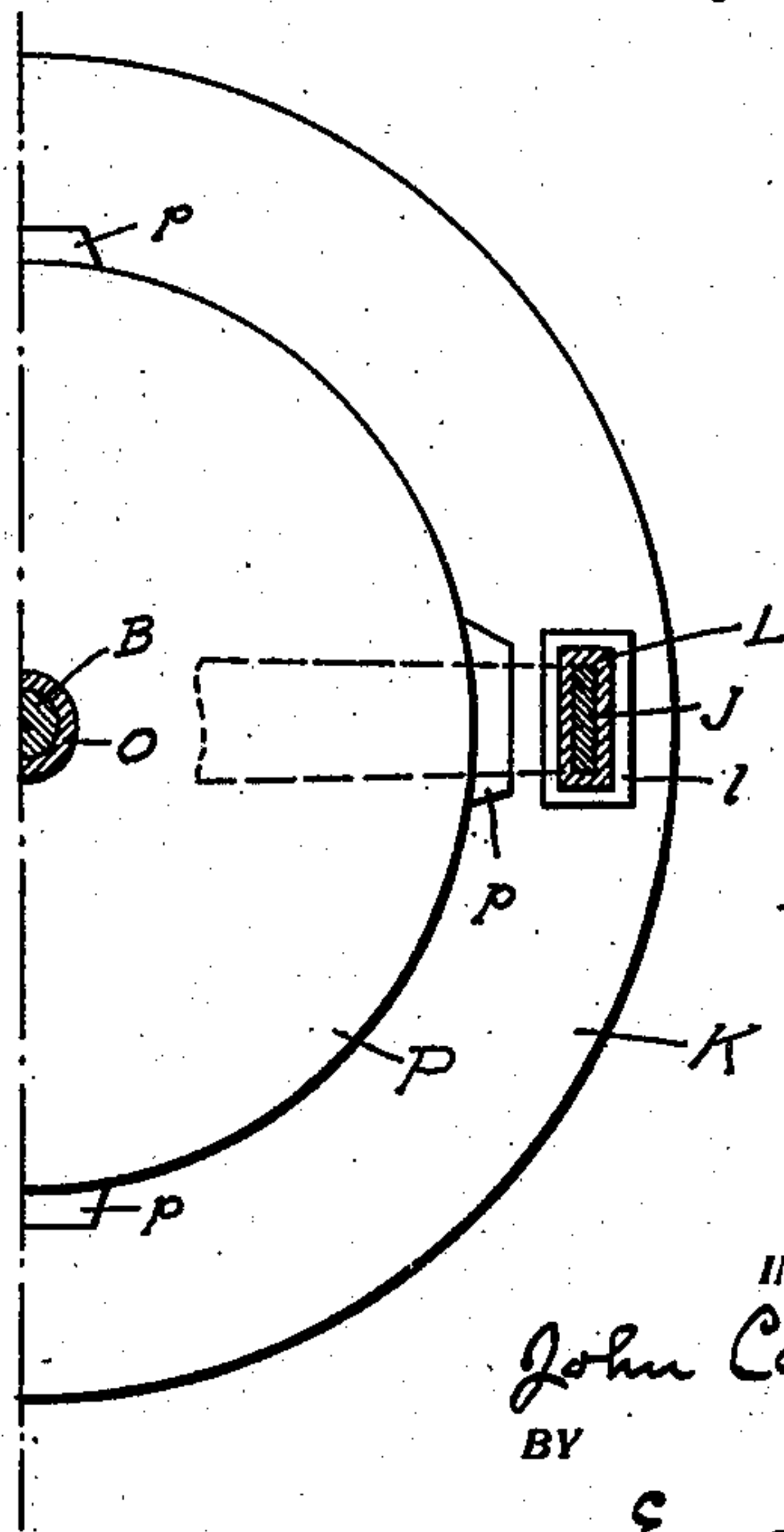


Fig. 2.

WITNESSES:

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JOHN CALVIN FLOWERS, OF ST. JOSEPH, MISSOURI.

WASHING-MACHINE.

No. 900,505.

Specification of Letters Patent.

Patented Oct. 6, 1908.

Application filed July 11, 1907. Serial No. 383,244.

To all whom it may concern:

Be it known that I, JOHN CALVIN FLOWERS, a citizen of the United States, residing at St. Joseph, in the county of Buchanan and State of Missouri, 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.

The object of my device is to provide a washing machine having reverse action and that will rub clothing or other articles at the top, bottom and sides of a tub, simultaneously, thereby cleansing them both thoroughly and quickly.

I accomplish my object by the mechanism illustrated in the accompanying drawings, in which,

Figure 1 is a sectional elevation of the machine, the tub and horizontal driving shaft broken away; Fig. 2 is a sectional plan view of the machine shown cut at line $x-x$ of Fig. 1, and Fig. 3 is a detail section showing guideway in shaft and the shaft connection with a drag wheel.

Similar letters refer to similar parts in the several views.

A represents a tub, partly broken away, and B the central shaft of the machine.

C represents wheels and other gearing mechanism, broken away, by which the machine is operated. Any suitable gearing may be used, but I preferably use that on which I was granted United States Letters Patent No. 864,126, dated August 20, 1907.

Spaced below the gearing cog wheels C there is a horizontal beveled cog wheel D and attached to an end of the horizontal driving shaft of said gearing there is a beveled cog wheel E set in vertical position and adapted to mesh with wheel D. Wheel D is provided with a hub forming a collar D' which is detached from the horizontal gear wheel C and its hub to permit reverse motion on central shaft B. Said collar is provided with a shoulder d , which rides upon a flange f , on a boxing F. This boxing is rigidly fastened on the top of the tub through said flange by screws or bolts $f' f'$. Said collar D' is threaded on its outer surface and adapted to engage with threads on the inner

surface of a neck H into which it is screwed.

Two beams I I extend oppositely outward from the base of said neck. Downwardly projecting ends of said beams form arms J J.

K is a rub wheel provided with a plurality of corrugations $k k$ —on its bottom and rim and having an open center K' as shown by dotted lines in Fig. 1. Metal sockets L L provided with shoulders $l l$ are rigidly mortised or fastened in the rub wheel; they are adapted to receive said arms J J.

O is a collar.

P is a cap provided with supports $p p$ —, by which it is rigidly fastened on the top of the rub wheel.

R is a drag wheel provided with drags $r r$ —.

Shaft B is provided in its lower end with a slot cut through its diameter forming a guide-way S. A staple T is adapted to travel in said guide-way, its ends being rigidly buried in the bottom of drag wheel R; said wheel is thus held securely on shaft B.

The upper horizontal gear wheel having connection with shaft B, said shaft, the drag wheel and its drags, revolve simultaneously in the same direction; the shaft collar, the neck, cross beams, arms, sockets, rub wheel, cap and supports being driven through connection with wheels D and E, revolve simultaneously with the drag wheel, but with a reverse motion. By reason of these opposite movements of the mechanism and the agitatory up and down movement attained through guide-way S and sockets L L, the articles placed in the tub are cleansed.

What I claim and desire to secure by Letters Patent, is:—

1. In a washing machine, a collar rigidly attached to a gear, a neck rigidly attached on said collar, beams projecting outward therefrom and arms thereon turned downward, a rub wheel and vertical sockets thereon, said arms engaging therewith to rotate said wheel and permit an up and down movement of said wheel, substantially as shown and described.

2. In a washing machine the combination with a central vertical revoluble shaft rigidly attached to a gear and a drag wheel supported thereby, of a collar around the upper end of said shaft rigidly attached to a reverse gear and revoluble in reverse direction from that of said shaft, a neck rigidly attached to said collar, beams projecting therefrom, downwardly turned arms thereon, a

rub wheel and the vertical sockets thereon, said arms engaging therewith to rotate said wheel oppositely from the rotation of the shaft and permit an up and down movement, 5 substantially as shown and described.

3. In a washing machine a central vertical revoluble shaft rigidly attached to a gear and a drag wheel carried thereby, a revoluble collar around the upper end of said shaft 10 rigidly attached to a reverse gear, a neck rigidly attached to said collar, beams projecting outwardly therefrom and the downwardly turned arms thereof, a rub wheel

having an open center and surrounding said drag wheel, a cap supported thereby, and 15 the sockets on said rub wheel with which said arms engage rotating said rub wheel and cap in reverse direction from said shaft, substantially as set forth and shown.

In witness whereof I have hereunto set 20 my hand in presence of two witnesses.

JOHN CALVIN FLOWERS.

Witnesses:

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EVANGELINE O. GIBBONS.