

(No Model.)

R. S. MORSE.
WASHING MACHINE.

No. 248,944.

Patented Nov. 1, 1881.

Fig. 1.

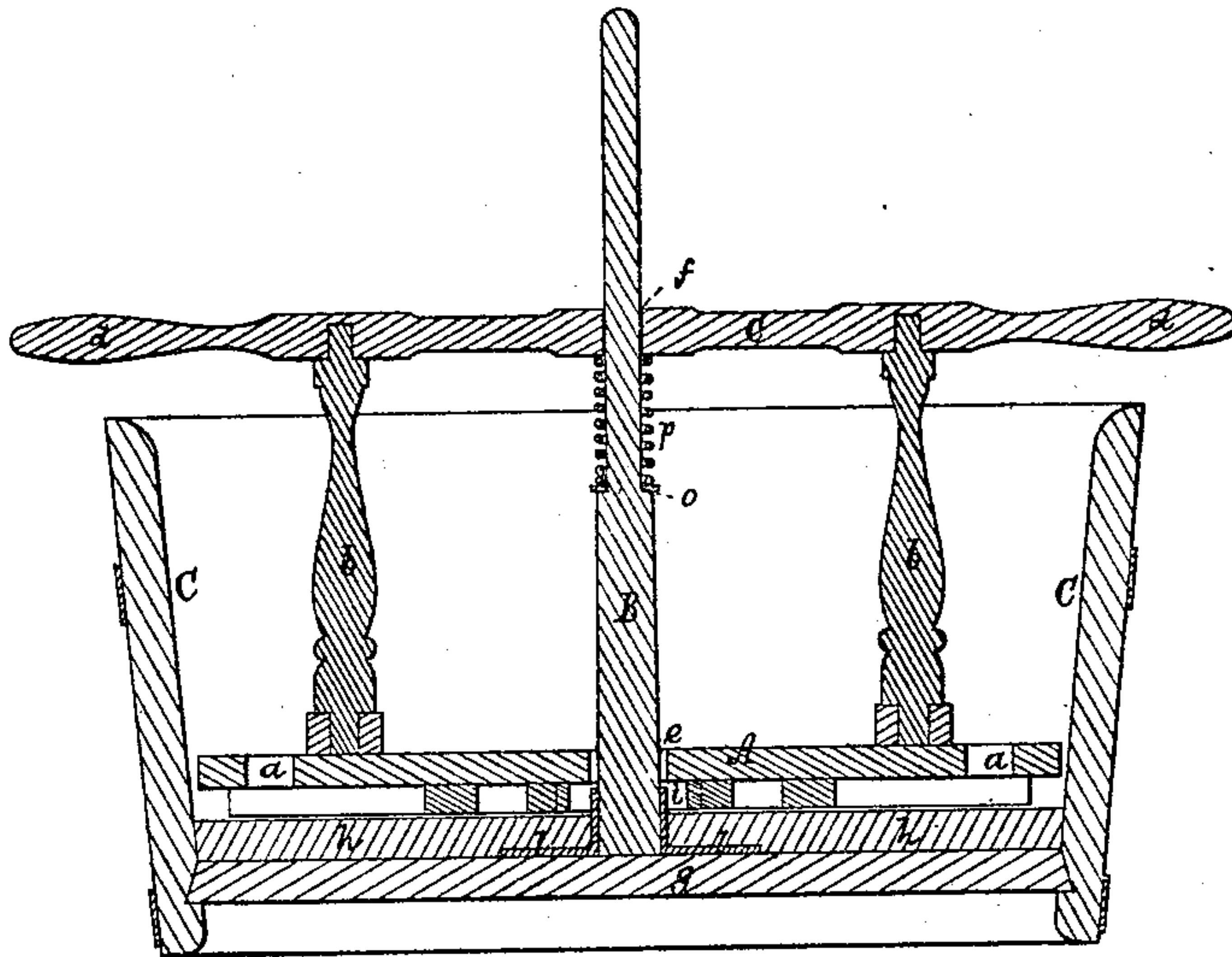


Fig. 2.

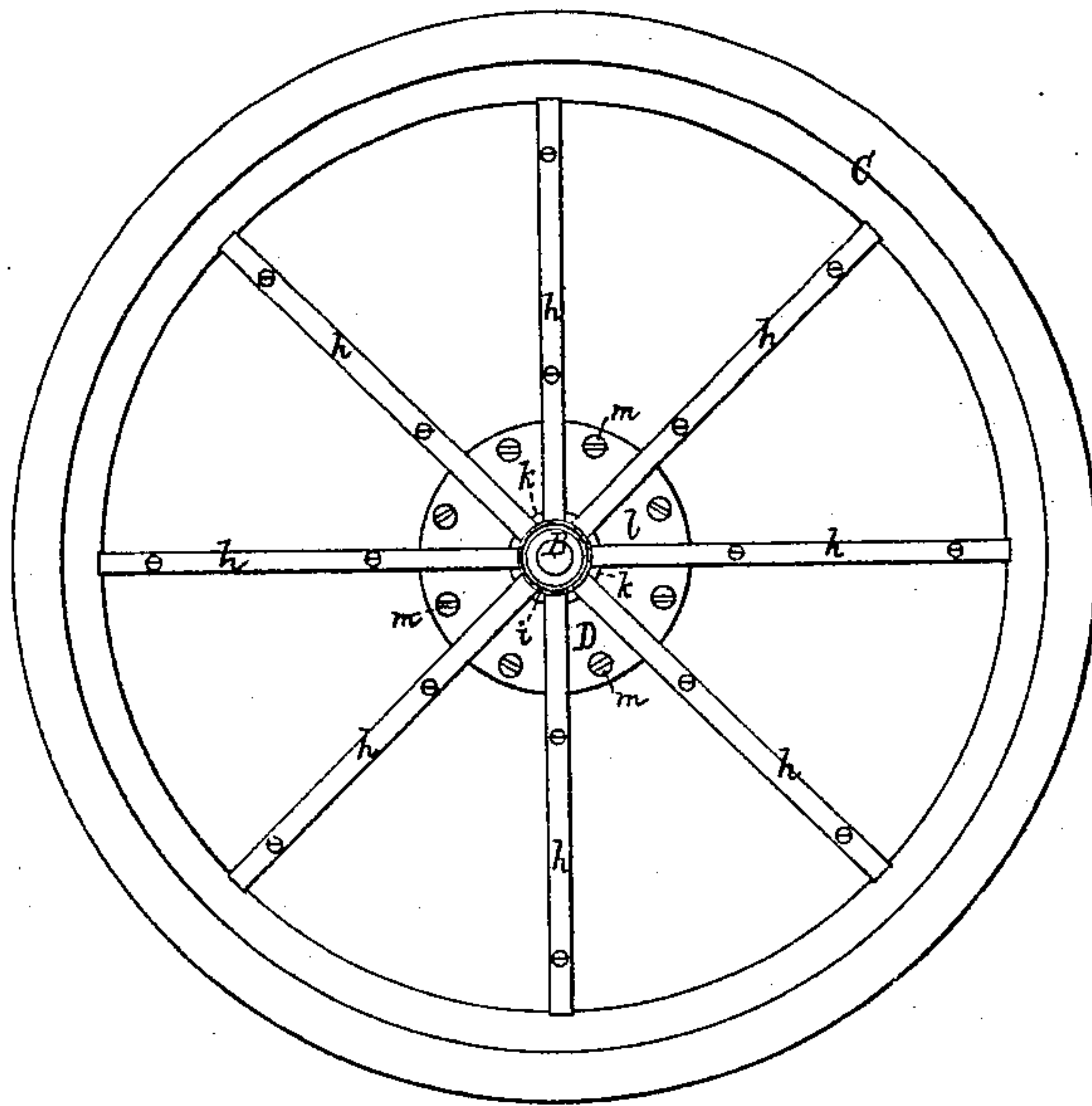


Fig. 3.

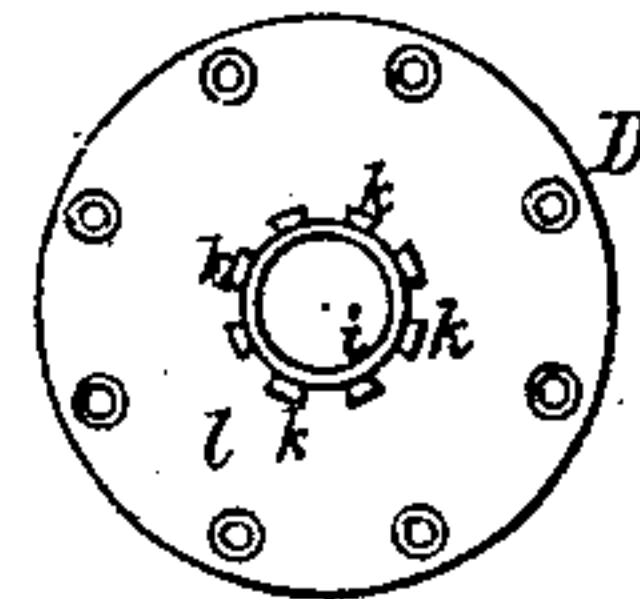


Fig. 4.



Fig. 5.



Witnesses.

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UNITED STATES PATENT OFFICE.

RUSSELL S. MORSE, OF WILTON, MAINE.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 248,944, dated November 1, 1881.

Application filed March 7, 1881. (No model.)

To all whom it may concern:

Be it known that I, RUSSELL S. MORSE, of Wilton, of the county of Franklin and State of Maine, have invented a new and useful Improvement in Machines for Washing Clothes; and I do hereby declare the same to be described in the following specification and represented in the accompanying drawings, of which—

Figure 1 is a vertical and transverse section of a machine with my invention. Fig. 2 is a top view of a tub without the dasher. Fig. 3 is a top view; Fig. 4, a side elevation, and Fig. 5 a transverse section, of the metallic shoe for supporting the wooden upright stationary spindle and radial bars of the tub.

My present improvement relates to the kind of washing-machine described in Letters Patent of the United States No. 103,357, granted to me May 24, 1870.

In this machine the dasher A is a circular disk perforated with holes *a*, and provided at its lower side with a series of ribs or tangential rubbers, and on its upper side with posts *b b* and a cross-bar, *c*, or brake terminating at its ends in two handles, *d d*. At the centers of the dasher and its cross-bar are holes *e f*, to receive the stationary upright wooden spindle B, extending up from the bottom *g* of the tub C, at the central part thereof. There is fixed upon the said bottom *g* a series of radial bars, *h*, which at their inner ends and with the spindle B are supported by a metallic shoe, D, constructed as hereinafter described. The said shoe consists of a sleeve or tube, *i*, having projecting from its outer periphery a series of teeth, *k*, arranged so that each of them shall come directly between and against any two next adjacent of the radial bars *h*. Furthermore, there is to the lower end of the tube a broad disk or flange, *l*, which rests directly upon the bottom of the tub, and is held thereto in part by screws *m*, going down through such flange and into the said bottom, such flange being extended underneath the radial bars in manner as represented. The shoe, composed of the tube, the teeth, and the flange, is to be cast in one piece of metal, and may be of iron, in which case it should be galvanized or zinc-plated, to prevent it from becoming oxidated. The bore

of the tube is slightly tapering, it being smaller in diameter at the top than at the bottom, and before fixing the shoe to the bottom of the tub the spindle is to be driven into the said bore so as to tightly fit it. The radial bars, by overlapping the flange of the shoe, aid in holding the shoe to the bottom of the tub, and in turn are supported by the teeth of the shoe. The shoe thus performs the double duty of supporting the radial bars and the spindle, and besides is held down in part by the said bars.

Without a shoe of the kind described it has been found to be difficult, if not impossible, to sustain the spindle to prevent it from working loose under the lateral pressure to which it becomes subjected while the machine is in use.

The spindle, at about its middle, has a shoulder, *o*, upon which a helical spring, *p*, encompassing the spindle rests, the upper end of the spring being against the brake. The spring is to force upward the dasher preparatory to each oscillation or reciprocating rotary movement imparted to it by a person having his hands hold of the handles of the brake or cross bar. It is found that it is much easier or less tiresome to a person using the machine for the dasher to be moved upward automatically—that is, by a spring—than for it to be raised or lifted by the hands of the person.

It will be seen that by my arrangement of the spring it is wholly above the dasher and tub, and thus not liable to be clogged by clothing, as it would be were it below the dasher and around the spindle. Furthermore, the said spring is outside of the spindle and not within it, as is the spring shown in the United States Patent No. 165,359, and it bears directly against the brake, such rendering the spring readily removable from the spindle in case of injury to the spring without the necessity of first removing the spindle from the tub.

The tub having been charged with water and soap and clothes or other articles to be washed, the dasher is to be placed on the spindle and pressed down upon the clothes or articles and reciprocated horizontally in a manner well known, the spring being compressed during each downward movement of the dasher, and prior to such operating to force the dasher upward to enable the clothes or articles in the tub

to properly expand and receive the water and discharge the dirt, as may be necessary to effect the proper cleansing of them.

What I claim as my invention is as follows,
5 viz:

1. The combination of the metallic flanged and toothed shoe with the tub, the stationary spindle, the reciprocating dasher, and the series of radial bars, all being arranged and
10 adapted substantially as set forth.

2. In combination with the tub, the stationary spindle, and the series of radial bars of the

bottom of the tub, the metallic flanged and toothed shoe, as described, fixed to and resting on the said bottom, and having its flange 15 extended between such bottom and the series of radial bars fastened thereto and disposed at their inner ends between the teeth of the shoe, all as set forth.

RUSSELL S. MORSE.

Witnesses:

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E. B. PRATT.