

(No Model.)

A. K. DE GOOD.

WASHING MACHINE.

No. 271,317.

Patented Jan. 30, 1883.

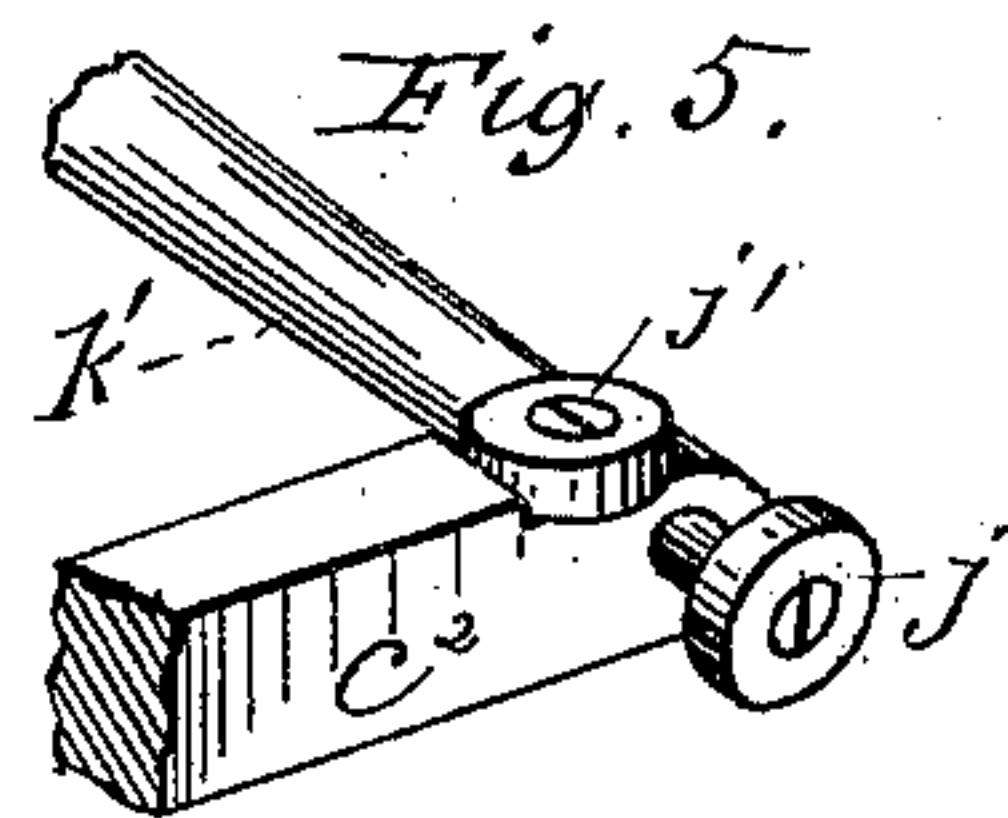
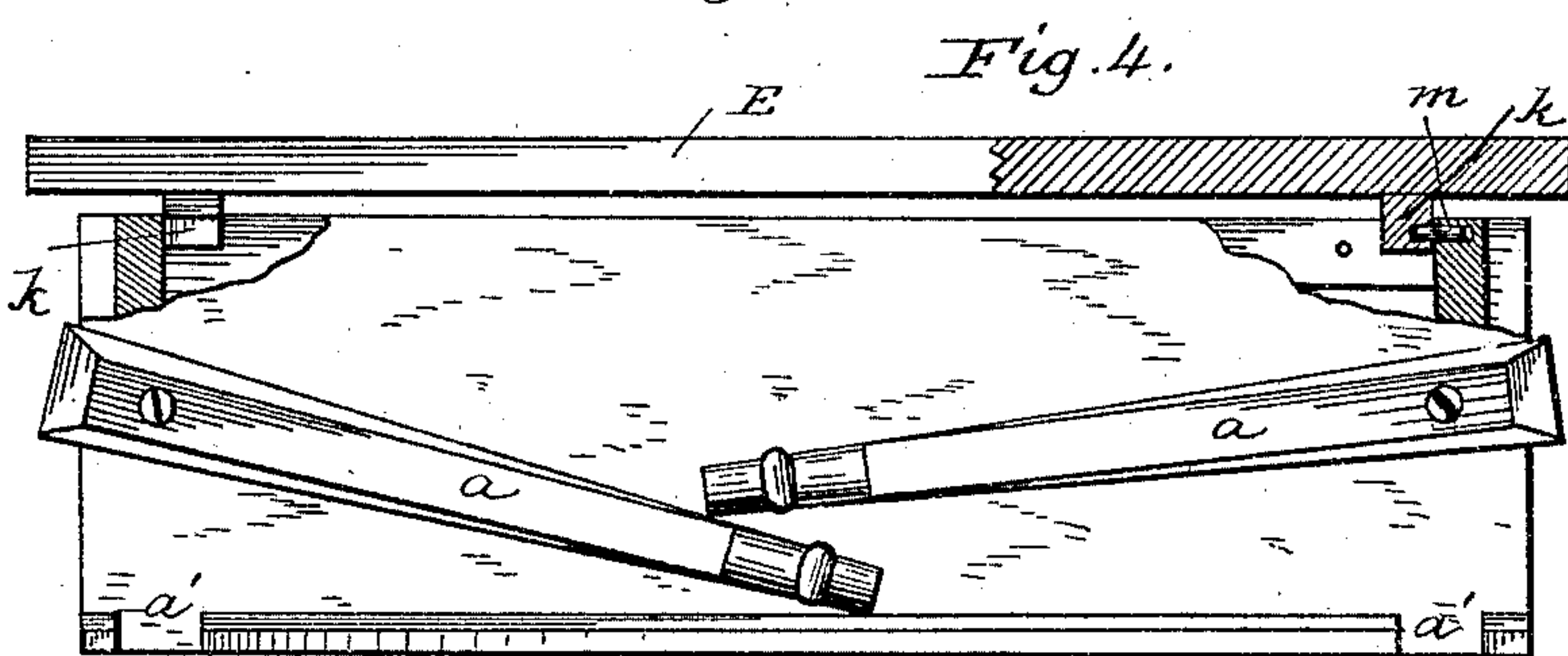
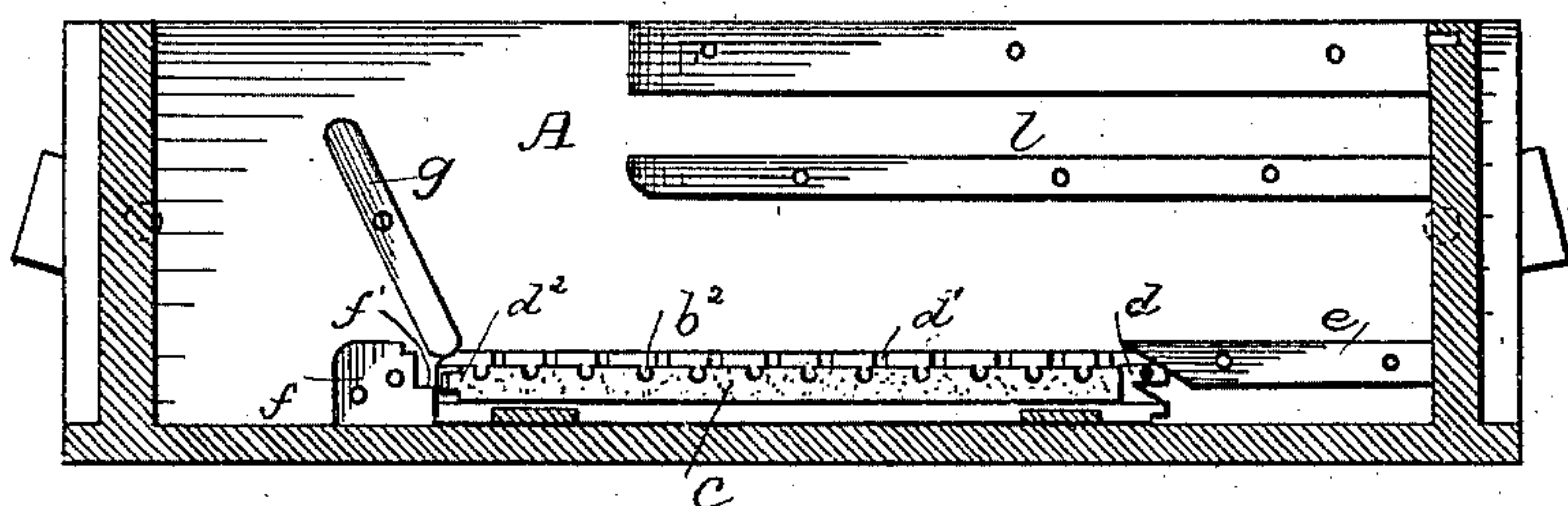
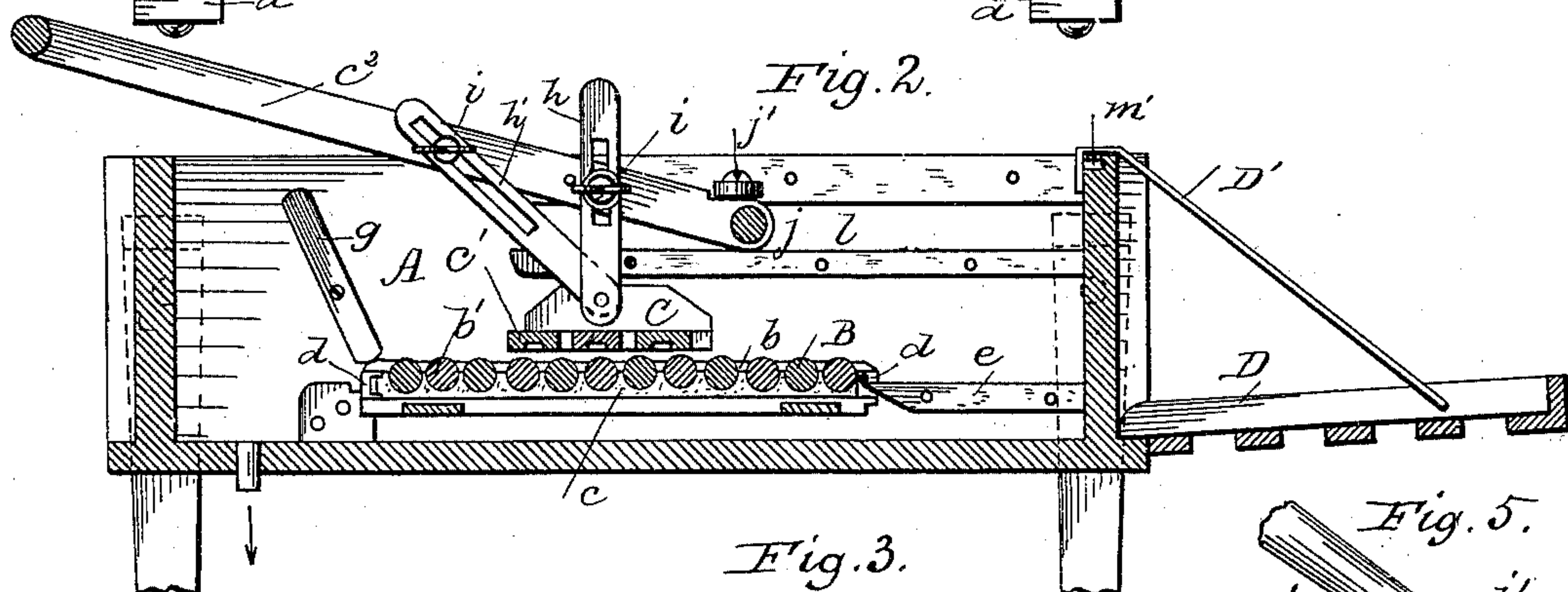
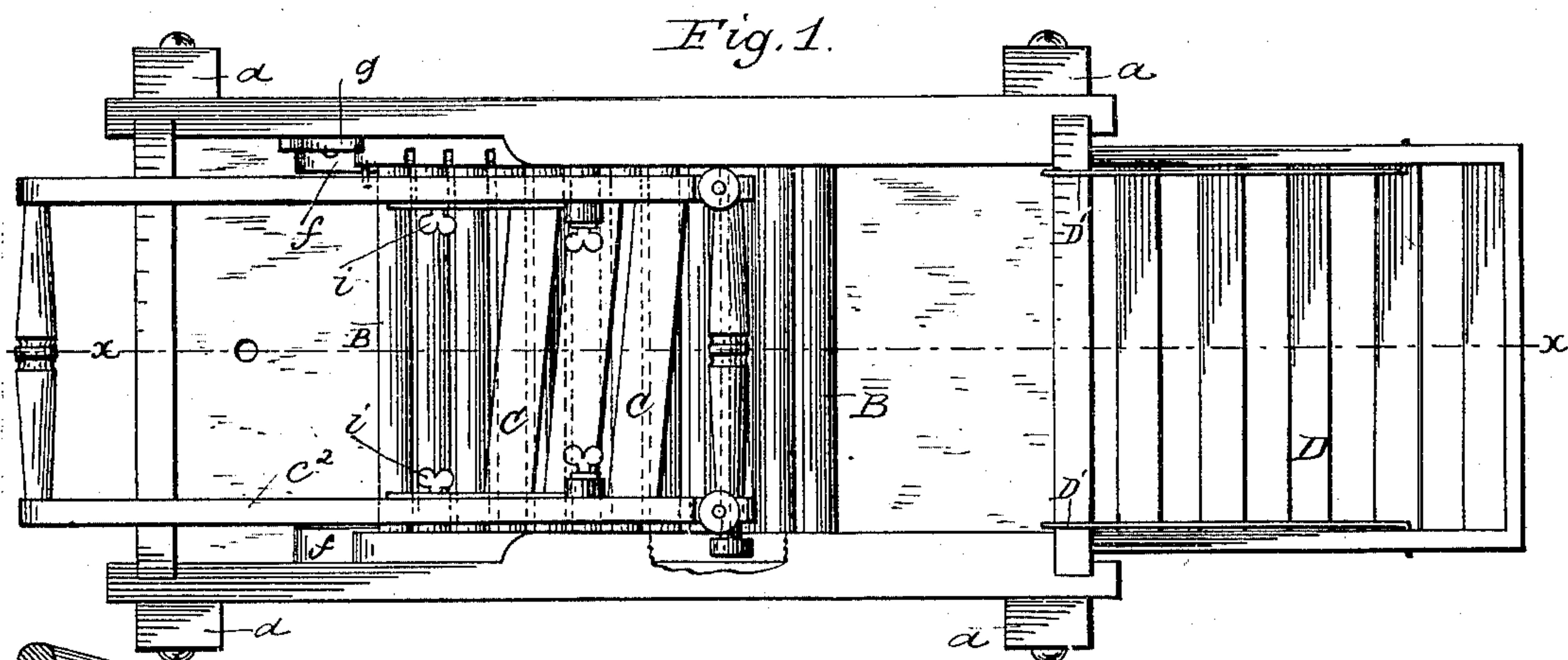


Fig. 6.

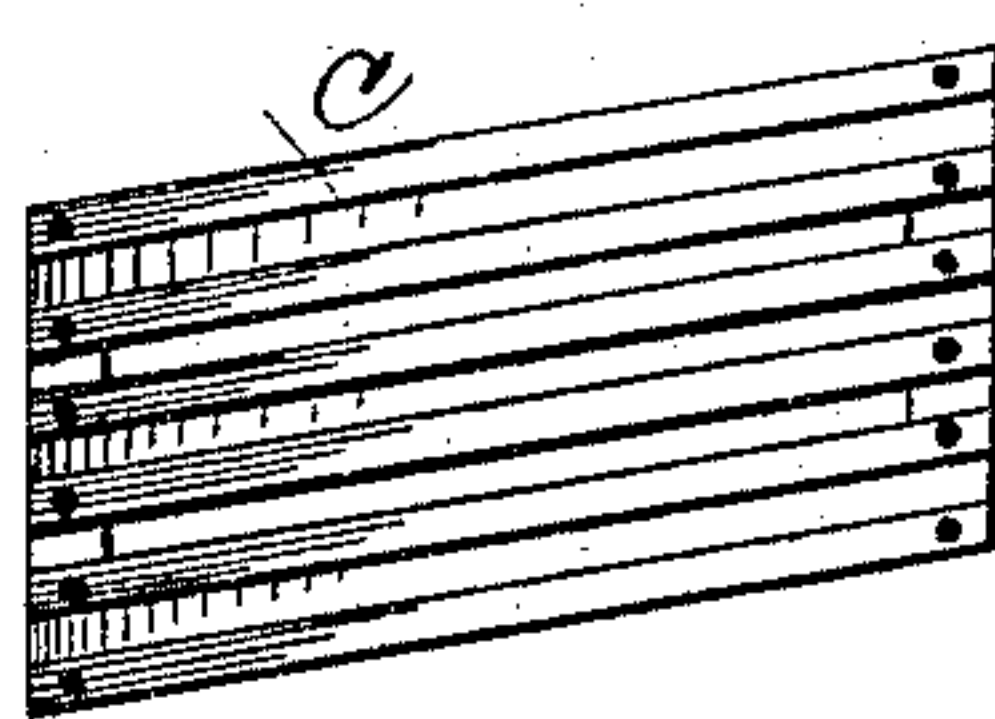
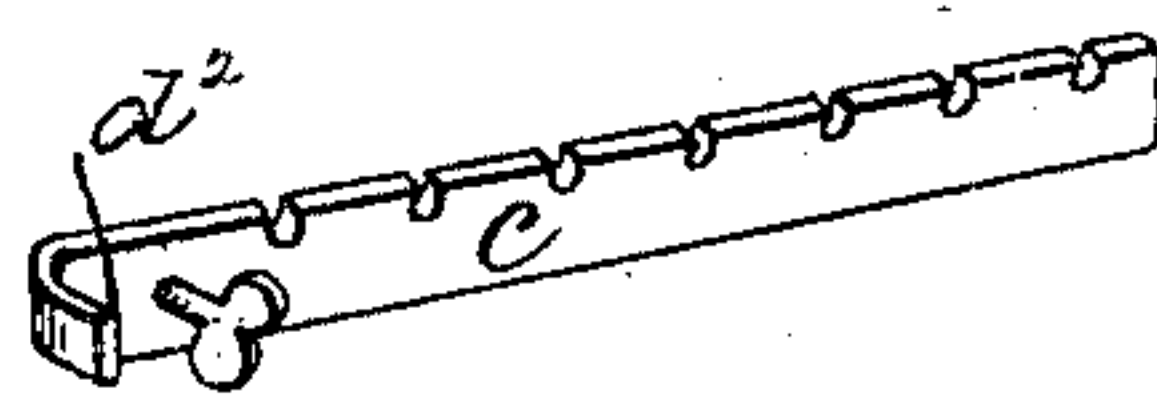


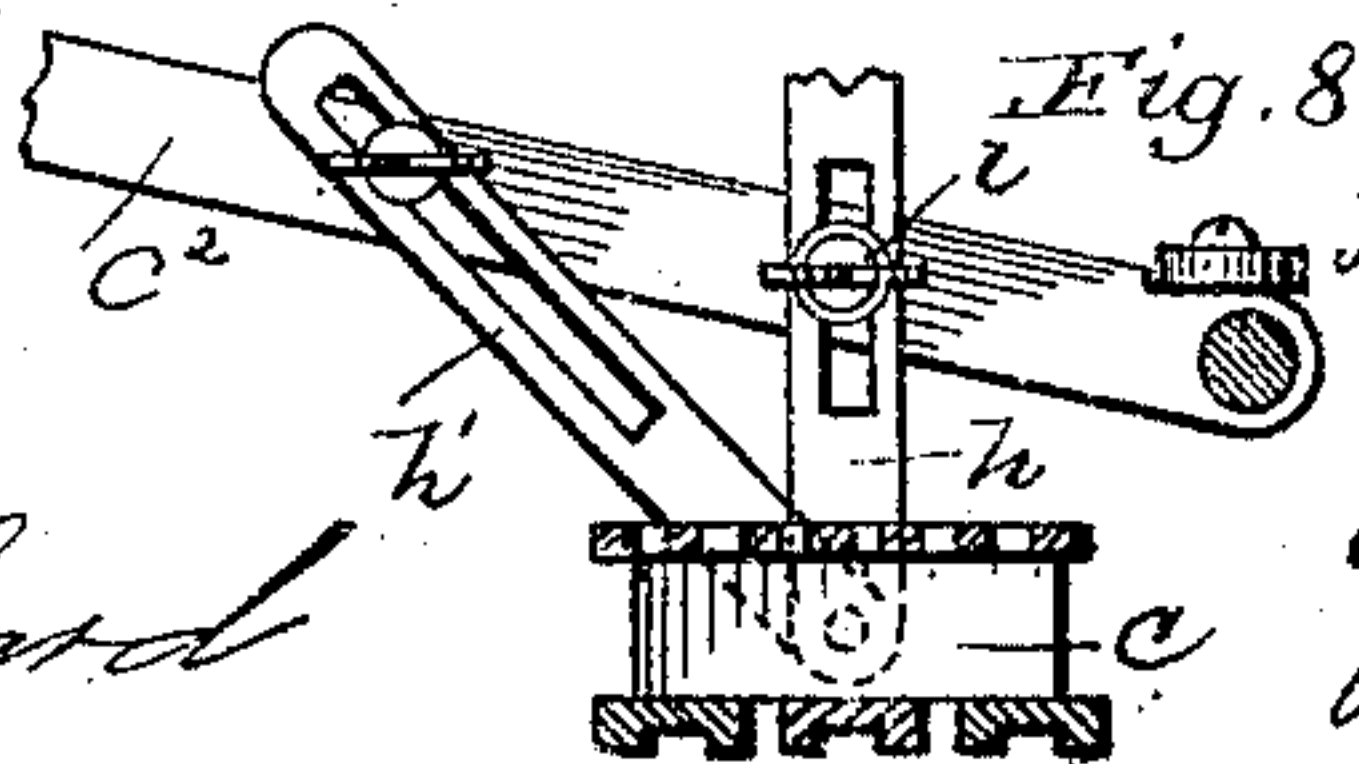
Fig. 7.



Witnesses:

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# UNITED STATES PATENT OFFICE.

ALEXANDER K. DE GOOD, OF MILLSBOROUGH, PENNSYLVANIA.

## WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 271,317, dated January 30, 1883.

Application filed September 25, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, ALEXANDER K. DE GOOD, a citizen of the United States, residing at Millsborough, in the county of Washington and State of Pennsylvania, 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.

This invention pertains to improvements in washing-machines, and has for its object to promote convenience in the washing operation, and to render the machine separable and adjustable in its several parts, and readily arranged for use, or to be converted into an ironing-table or other support, while at the same time serving as a clothes or fabric receptacle for the washed clothes or fabrics, provision also being made to admit air to dry the tub or receptacle after washing, while the cover or top is in place.

The nature of the invention consists, therefore, in the employment of a suitable receptacle, (one of an oblong shape being preferable,) said receptacle having a removable bed of rollers capable of a number of adjustments as to height above the receptacle-bottom, each of the rolls of said bed of rollers being journaled at one end in notches in a slide fitted to move in a slot in one of the side bars of the roller-bed frame.

It consists, also, in the employment of a "rubber," with the slats or bars forming the rubber proper arranged obliquely to a plane parallel with the roller-bed, said rubber having frictional rolls arranged one upon each end of a shaft or cross-bar secured to the inner ends of the side bars forming its handle, and one each upon the upper surfaces of said handle side bars, near the rolls of the cross-bar or shaft.

In the accompanying drawings, Figure 1 is a plan view, and Fig. 2 is a longitudinal section, of my improved washing-machine. Fig. 3 is a view of the receptacle with the rubber detached. Fig. 4 is a side elevation, partly in section. Figs. 5, 6 and 7 are detail views, and Fig. 8 shows a reversible rubber.

In carrying out my invention I employ a receptacle or tub, A, preferably oblong in shape. This receptacle or tub has pivoted to its sides, near the corners, folding legs *a a*, which are held in their vertical position, when supporting the receptacle, by being let into recesses or notches *a'*, cut in the side projecting edges of the receptacle-bottom.

B is the roller-bed, which consists of a frame, *b*, and a series of rolls, *b'*, the axis of each of which bears at one end in sockets in one of the side bars of the frame *b*, and at the other end in notches *b<sup>2</sup>* in a slide, *c*, adapted to fit and slide in a groove, *d*, in the other side bar of the frame *b*, said latter side bar having notches or gains *d'*, which register with those in the slide *c* as the slide is moved by pressing endwise against a projection, *d<sup>2</sup>*, at one end thereof, the purpose of which is to permit the ready removal or renewal of the rolls when necessary. The roller-bed B is itself adapted to be adjusted either directly in contact with the receptacle-bottom, underneath the cleats at one end, said cleats being fastened to the receptacle-sides. This adjustment of the roller-bed is made when it is desired to perform the washing in "one" water and afterward in a "second" water. Or the said bed can be adjusted at a point higher up by supporting the rear ends of the side bars of its frame *b* upon the inner ends of the said cleats *e* and the forward ends of said side bars upon shoulders *f'* of stops *f*, fastened to the receptacle-sides, the said rear ends of the side bars of the frame *b* having notches or sockets therein to receive the tapered ends of said cleats, to aid the shoulders of the stop to support the roller-bed, as stated. This adjustment, or the still higher one indicated in the drawings, is made when it may be required to use only one water, or more water than when the roller-bed is disposed, as first described, on the receptacle-bottom. The roller-bed B is secured in either of the afore-said positions by means of a latch or lever, *g*, pivoted to one side of the receptacle A, and reversible, one of its arms being of such length as to enable it to secure the bed when in one position, and the other arm thereof being of such a length as to enable it to secure the bed when in its other position.

C is the rubber, which consists of the rubber proper, C', having its slats secured to end pieces



connected to the side bars of the rubber-handle C<sup>2</sup> by means of slotted bars or arms *h* and similar braces, *h'*, said arms and braces being capable of adjustment at the desired angle to and distance from the handle C<sup>2</sup> by means of adjusting-screws *i*. The rubber proper, C', is arranged obliquely to a plane parallel with the bed-rolls, to cause them to operate on the fabrics so that the latter will not be wedged or caught between the rolls or in the interstices between said rolls of the bed, and thus render the rubber more efficient in its operation or action. Frictional rolls *j* are placed upon the projecting ends of a cross-bar, *k'*, at the inner end of the handle C<sup>2</sup>, and move or run between the strips *l*, secured near the upper edge of the receptacle, while similar rolls, *j'*, are secured upon the horizontal shoulders of the handle C<sup>2</sup>, near said rolls *j*, the rolls *j'* bearing against the sides of the strips *l* and the rolls *j* bearing against the edges thereof. The rolls *j'* being set on the handle as shown permits them to turn freely on their axes. The frictional rolls permit the easy operation of the rubber, while enabling it to perform its work with efficiency.

At one end of the receptacle A is disposed a leaf or shelf, D, it being preferably made of slats suitably secured together and supported in position upon the projecting edge of the receptacle-bottom, having hooked rods D' hooked over the upper edge of that end of the receptacle. When the fabrics are wrung or passed through a wringer, which may be arranged upon the same end of the receptacle or tub A, they are permitted to drop therefrom upon the shelf or leaf D, the latter thus serving as a convenient means for holding the fabrics as they are wrung, and for carrying the same to the place where they are to be hung up to dry.

E is the cover or top, adapted to rest in an isolated or slightly-elevated position upon the receptacle A, it being provided with recessed cleats *k*, secured to its under side and resting across the upper edge of the receptacle, with the latter entering the recesses or notches of the cleats. This adjustment of the cover or

top in place permits, while enabling the receptacle to be used as an ironing-table or other support, the admission of air to dry the receptacle.

Projecting about centrally from one side of the cleats *k* of the top or cover E is a pin or projection, *m*, which, as the cover or top is placed in position, enters a coincident aperture, *m'*, in one end of the receptacle A, to secure the cover or top thereon.

In Fig. 8 is shown a reversible rubber having two rubbing-surfaces of unlike material, the lower one being made of wood and the upper one of perforated sheet metal.

It will be observed that I can adjust my rubber with reference to the fulcrum of the handles, whereby more or less leverage can be given to the handles.

I claim and desire to secure by Letters Patent—

1. In a washing-machine, the roller-bed frame *b*, having a groove, *d*, and notches or gains *d'* on one side, in combination with the sliding bar *c*, having bearings *b'* for rolls *b'*, whereby all the rolls B can be locked in place by a single movement of slide *c*, as and for the purpose set forth.

2. In a washing-machine, the handle C<sup>2</sup>, in combination with a rubber, C, slotted bars *h h'*, adjusting-screws *i*, and a roller-bed, whereby the rubber can be longitudinally adjusted with reference to a vertical line drawn through the fulcrum of the handle, substantially as and for the purpose set forth.

3. In a washing-machine, the handle having shoulders, as shown, provided with frictional rolls *j'*, and a cross-bar, also having similar rolls, *j*, the rolls of the cross-bar and handle being arranged at right angles to each other, substantially as and for the purpose set forth.

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

ALEXANDER K. DE GOOD.

Witnesses:

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HARRY BERNHARD.