

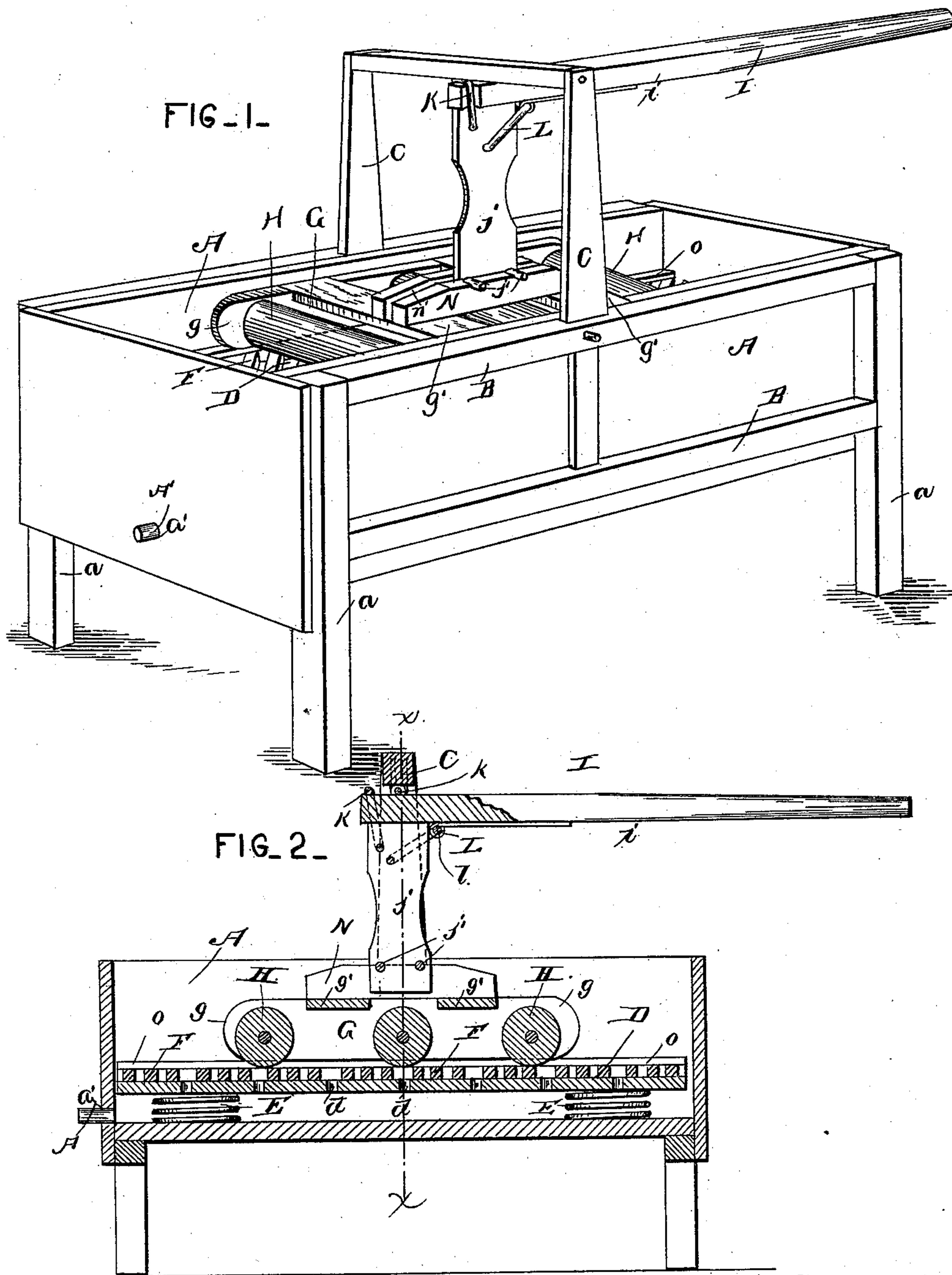
(Model.)

2 Sheets—Sheet 1.

E. E. NEWTON & W. FITZPATRICK.
WASHING MACHINE.

No. 357,022.

Patented Feb. 1, 1887.



Witnesses

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Inventors

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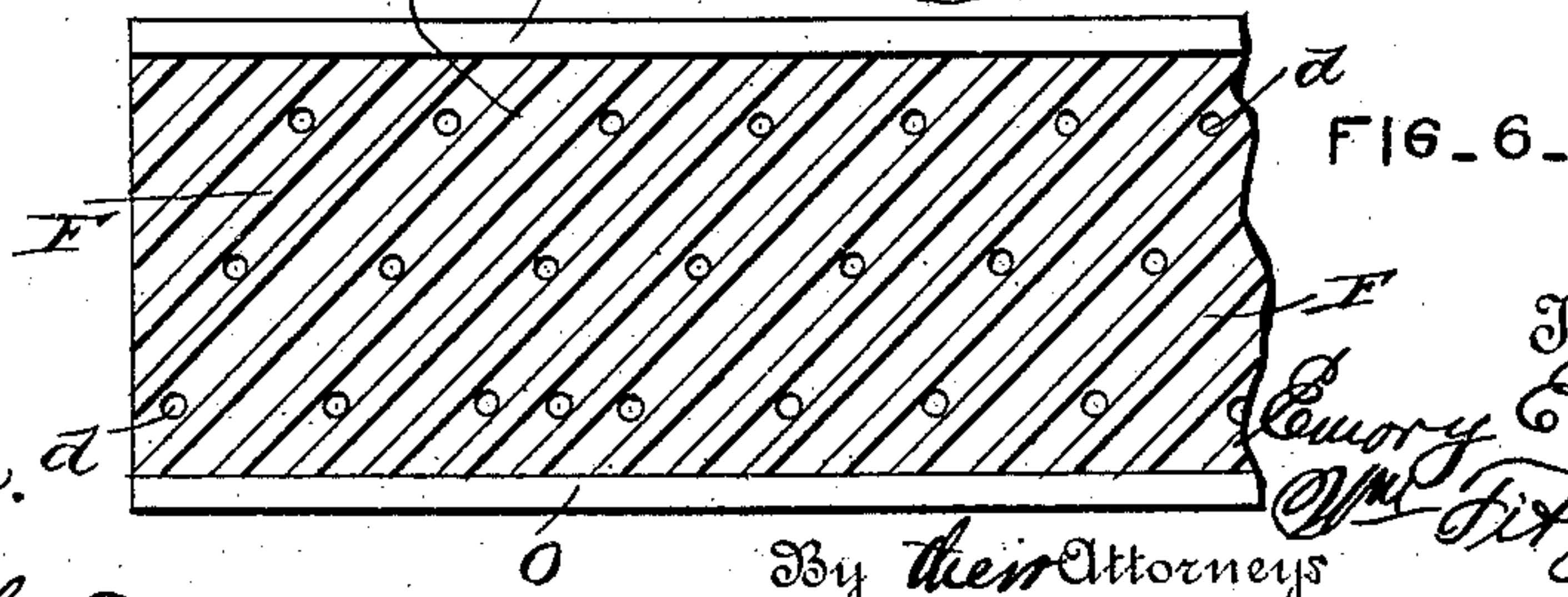
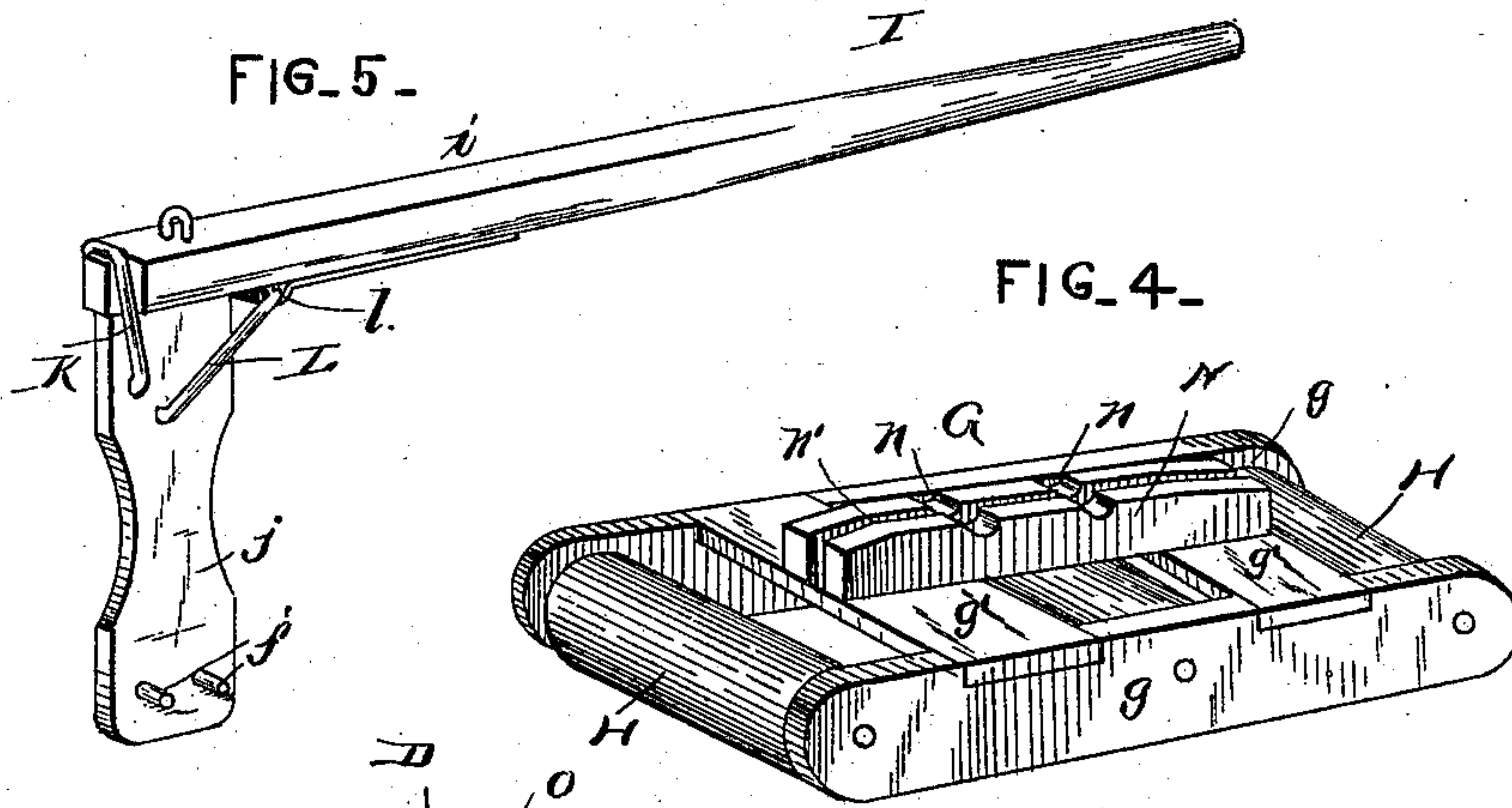
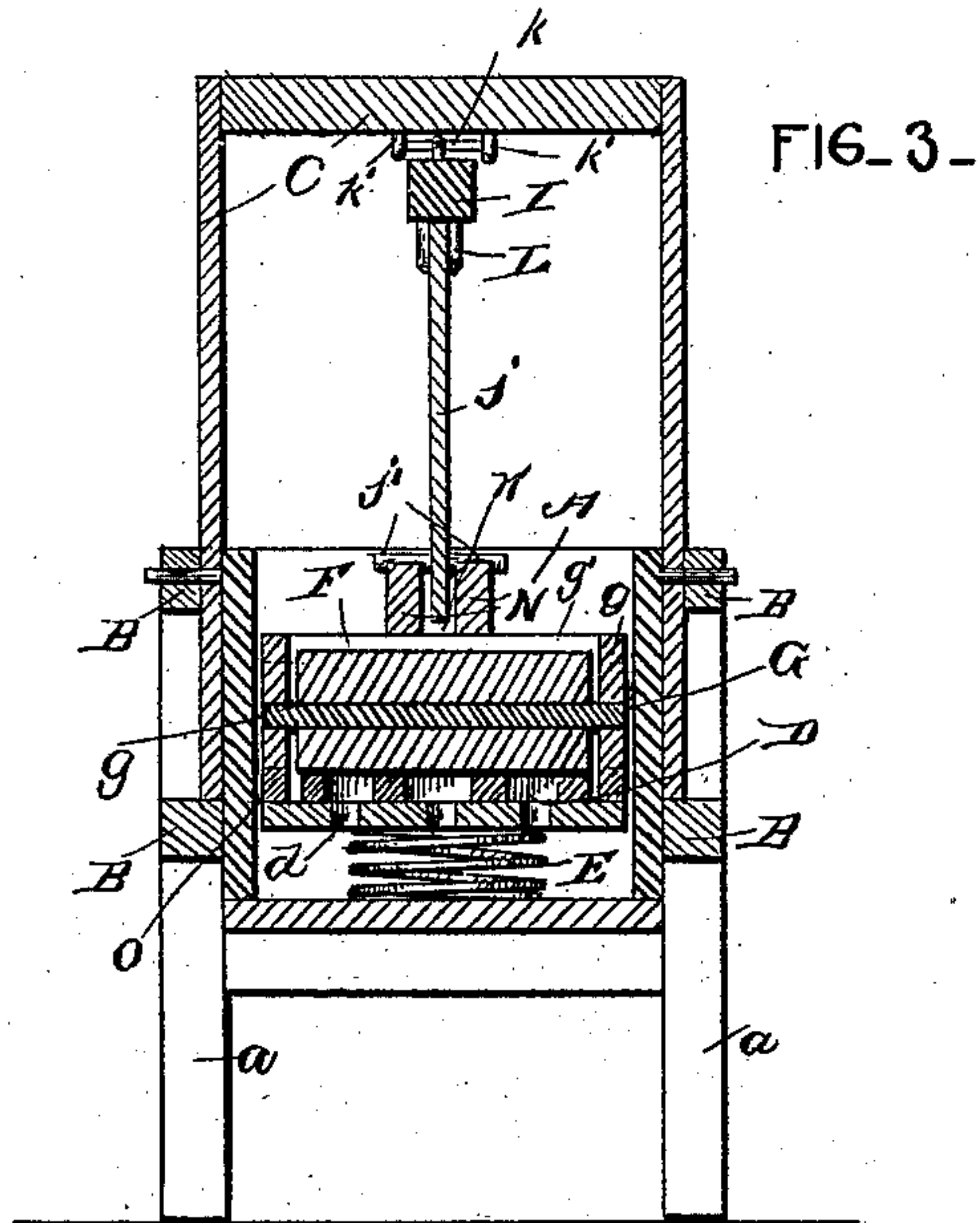
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Witnesses

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UNITED STATES PATENT OFFICE.

EMORY E. NEWTON AND WILLIAM FITZPATRICK, OF BRAZILTON, KANSAS.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 357,022, dated February 1, 1887.

Application filed May 8, 1886. Serial No. 201,563. (Model.)

To all whom it may concern:

Be it known that we, EMORY E. NEWTON and WILLIAM FITZPATRICK, citizens of the United States, residing at Brazilton, in the county of Crawford and State of Kansas, have invented a new and useful Improvement in Washing-Machines, of which the following is a specification.

Our invention relates to improvements in washing-machines; and it consists of the peculiar and novel construction and arrangement of the various parts for service, substantially as hereinafter fully set forth, and particularly pointed out in the claims.

The object of our invention is to provide an improved washing-machine for thoroughly and expeditiously cleansing fabrics, clothing, or other like articles of apparel, which shall be simple and strong in construction and cheap and inexpensive of manufacture; to provide means for regulating the pressure on the fabrics, which shall assist in forcing out the dirt therein, and to provide improved lever mechanism for actuating the rollers, which shall be so arranged that the operator can stand away from the receptacle, and thus be out of the way of the steam arising therefrom.

In the accompanying drawings, Figure 1 is a perspective view of a washing-machine embodying our invention. Fig. 2 is a vertical central longitudinal sectional view through the apparatus. Fig. 3 is a transverse vertical sectional view on the line $x x$ of Fig. 2. Fig. 4 is a detached perspective view of the traveling roller-frame. Fig. 5 is a like view of the operating-lever. Fig. 6 is a detail view in plan of the false bottom.

Referring to the drawings, in which like letters of reference denote corresponding parts in all the figures, A designates the suds box or receptacle of our improved washing-machine, which is preferably made rectangular in form and supported upon legs or standards a , which are suitably secured thereto and arranged at opposite corners of the said box. The suds-box is further provided with an open top, and on its longitudinal walls it is provided with cleats or strips B, which are secured thereto in any suitable or preferable manner, one of the end walls of the suds-box being provided with an outlet, a' , for the escape of the dirty water after the operation of washing the

fabrics has been completed, the said exit being closed by a plug or stopper, A' , that prevents the escape of water from the suds box when the apparatus is in use.

C designates the lever-supporting frame, which is arranged in a vertical position above the suds-box and having its side rails passed through the cleats B, and suitably secured detachably and rigidly thereto, so that the frame can be removed to displace the traveling frame that carries the rollers which act upon the fabrics.

D designates a false bottom, which is inclosed within the receptacle or suds-box A, and is free to move vertically therein under the impact thereon of the traveling roller-frame. This false bottom is normally elevated above and held out of contact with the bottom of the receptacle by means of coiled retracting-springs E, which are suitably secured to and carried by the false bottom, and which bear or rest on the bottom of the receptacle. The water is poured in the receptacle and flows to the bottom thereof, and the false bottom is provided with a series of vertical openings, d , through which the water is free to circulate and have access to the fabrics on the said false bottom. The false bottom is further provided with a series of transversely-arranged strips or cleats, F, which are suitably secured thereon to provide a corrugated surface, and these strips or cleats are arranged in an angular or inclined position across the false bottom and equidistant from each other.

G designates the traveling frame, which comprises two parallel side bars, g , and the transverse connecting-bars g' , and in these side bars are journaled two or more rollers, H. These rollers are loosely journaled in the frame and are free to rotate therein independently of each other, and they bear on the corrugated surface of the spring-actuated false bottom, which thus serves as a rubbing-board.

I designates a handle-lever, which comprises a bar, i , and the arm j , arranged at right angles and rigidly secured to the handle-bar i , and this lever is pivoted at the junction of the handle-bar i and the arm j to the horizontal cross-bar of the frame C. This pivot for the handle-lever comprises, preferably, a shaft or pin, k , which is carried by the lever, and the ends of this shaft or pin are journaled in bear-

ings or hangers k' , which are secured to the frame C, and the handle-bar i and arm j of the lever are braced and strengthened by loops or bails K and L. These loops or bails are jour-
 5 naled on the arm j , and the upper end of the loop L is journaled in a bearing, l , that is secured to the handle-bar i in any suitable manner, while the free end of the bail K is fitted on a reduced end of the handle-bar. By dis-
 10 engaging the loop K from the reduced end of the handle-bar the arm j can be swung downwardly on the loop L and away from the handle-bar. The lower free end of the arm j of the lever carries two transverse pins, j' , which
 15 are suitably secured therein and project beyond the said arm on opposite sides thereof, and these pins fit and bear in transverse grooves or seats n , formed in the upper surface of a bearing-plate, N, that is carried by the travel-
 20 ing frame of the machine, the said bearing-plate having a longitudinal slot, n' , for the reception of the free end of the arm, as shown.

This being the construction of our invention, the operation thereof is as follows: The
 25 water is first placed in the suds-box and circulates freely through the perforated false bottom thereof, and the fabrics are placed in this suds-box and rest on the false bottom and beneath the rollers of the traveling frame, and
 30 this frame is moved back and forth longitudinally of the receptacle by operating the handle-lever. When the free end of the lever is raised, it acts upon the arm to draw the traveling carriage or frame in one direction, and the
 35 pins of the arm engage with the sides of the groove-seats in the bearing-plate, and when the end of the lever is depressed the frame is forced in the opposite direction. When the frame travels back and forth in the suds-box,
 40 the rollers rotate independently of each other and by frictional contact with the fabrics in the receptacle, and the said fabrics are thus subjected to the rolling action of the rollers and the action of the corrugated surface of
 45 the false bottom, whereby they are thoroughly cleansed, and but a minimum of wear and tear on the fabrics is exerted by the parts. The false bottom is forced upwardly by the springs, and it is thereby held in proper relative posi-
 50 tion for the rollers of the frame to act on the fabrics carried thereby, and when a large bulk of the fabrics is congregated beneath the traveling frame the springs are depressed to permit the movement of the frame.

55 By means of the peculiar form of bearing-plate and the pins in engagement therewith the friction between the lever and frame is reduced and the operation of the parts rendered more certain and effective, while at the same
 60 time the lever and frame can be readily disconnected and removed from the receptacle.

We would have it understood that we do not desire to confine ourselves to the particular construction and arrangement of parts herein shown and described, as we are aware that
 65 changes therein can be made without departing from the principle of our invention.

The ends of the transverse strips of the spring-actuated false bottom are protected by means of longitudinal strips o , that are se-
 70 cured to the side edges of the said bottom, and have the ends of the inclined strips abutting against the same, and, if desired, the bearing-plate may be composed of two parallel strips that are arranged a short distance apart to form
 75 the slot and have the grooves in their upper edges.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—
 80

1. As an improvement in washing-machines, the combination of a suds-box having an up-
 right frame, a false bottom arranged in the suds-box, the springs beneath the false bottom,
 85 a traveling frame working in the suds-box and having the rollers riding upon the false bot-
 tom therein, the parallel strips or cleats affixed to the traveling frame and having the trans-
 verse aligned grooves or seats n in their upper edges, and a lever pivoted to the frame and
 90 having its lower end fitted between the parallel strips, and provided with the transverse pins which fit in the grooves in the strips, substantially as described, for the purpose set forth.

2. As an improvement in washing-machines, 95
 the combination of a suds-box having the fixed frame C, a flat false bottom fitted in the suds-
 box, the coiled springs located beneath the false bottom, a traveling frame working in the suds-
 box and having two or more rollers loosely
 100 journaled therein, and located on substantially the same horizontal plane, the parallel cleats affixed to the traveling frame and having the transverse aligned grooves in their upper
 105 edges, a horizontal lever pivoted near its inner end to the fixed frame, a vertical arm pivoted at its upper end and on one side to the inner end of the horizontal lever, and having the transverse pins in its lower end, which fit in the grooves in the parallel strips, and a bail
 110 or loop, K, pivoted in the upper end of the vertical arm and fitting over the lever, the whole arranged and combined substantially as described, for the purpose set forth.

In testimony that we claim the foregoing as
 115 our own we have hereto affixed our signatures in presence of two witnesses.

EMORY E. NEWTON.

WILLIAM FITZPATRICK.

Witnesses:

WM. DISNEY,

P. F. VANSLYKE.