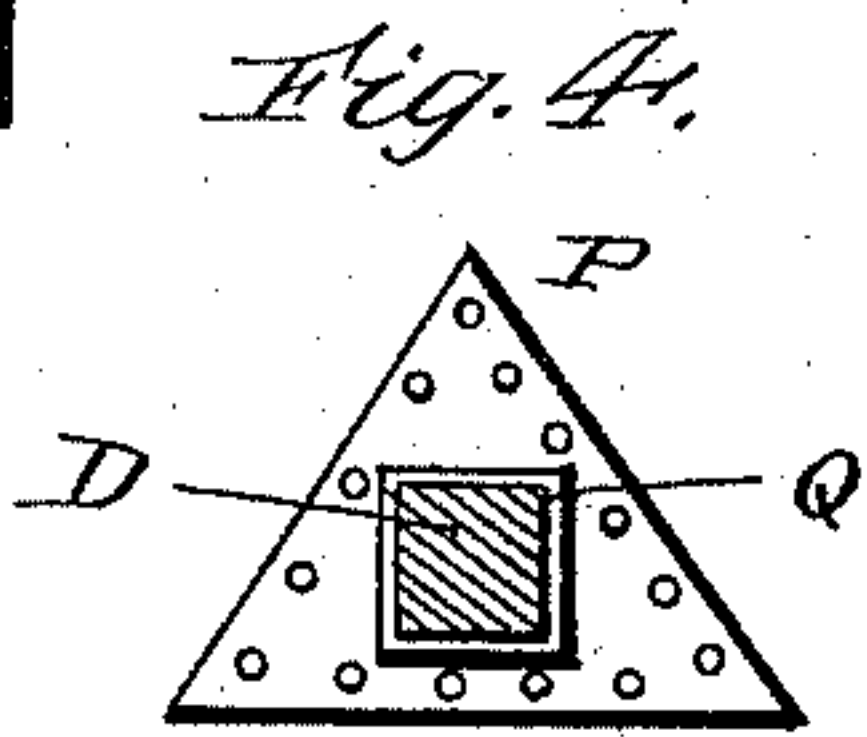
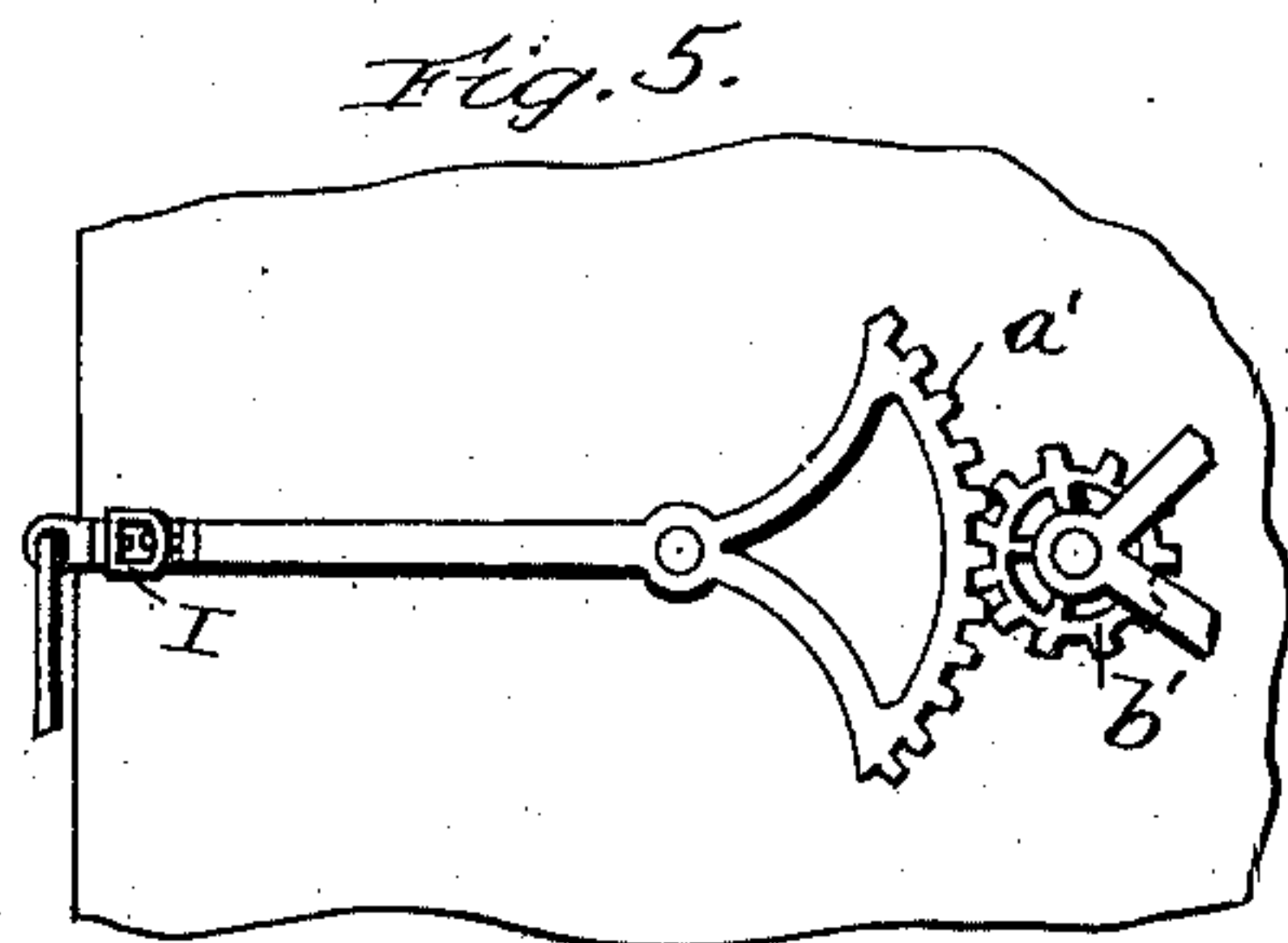
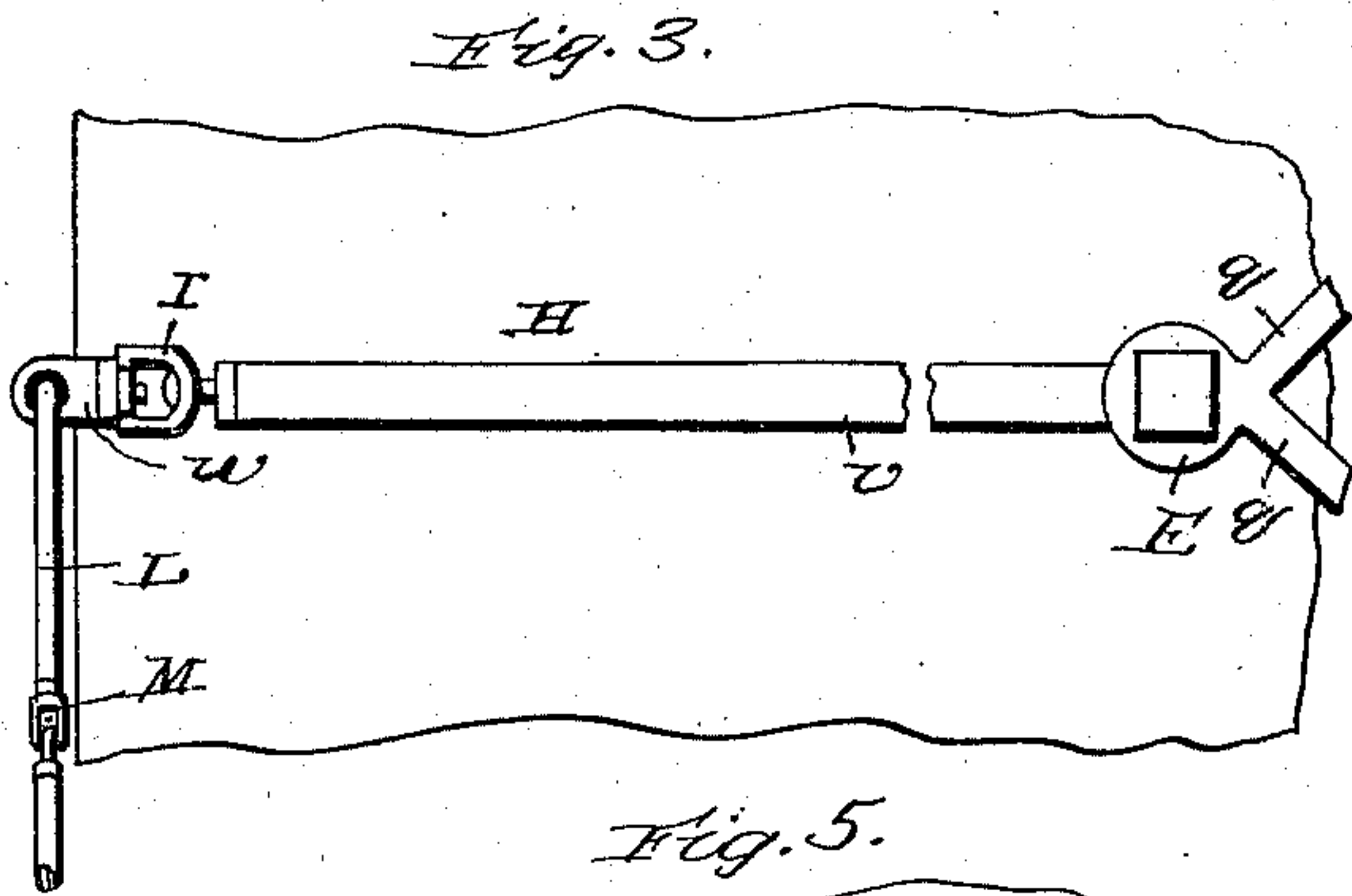
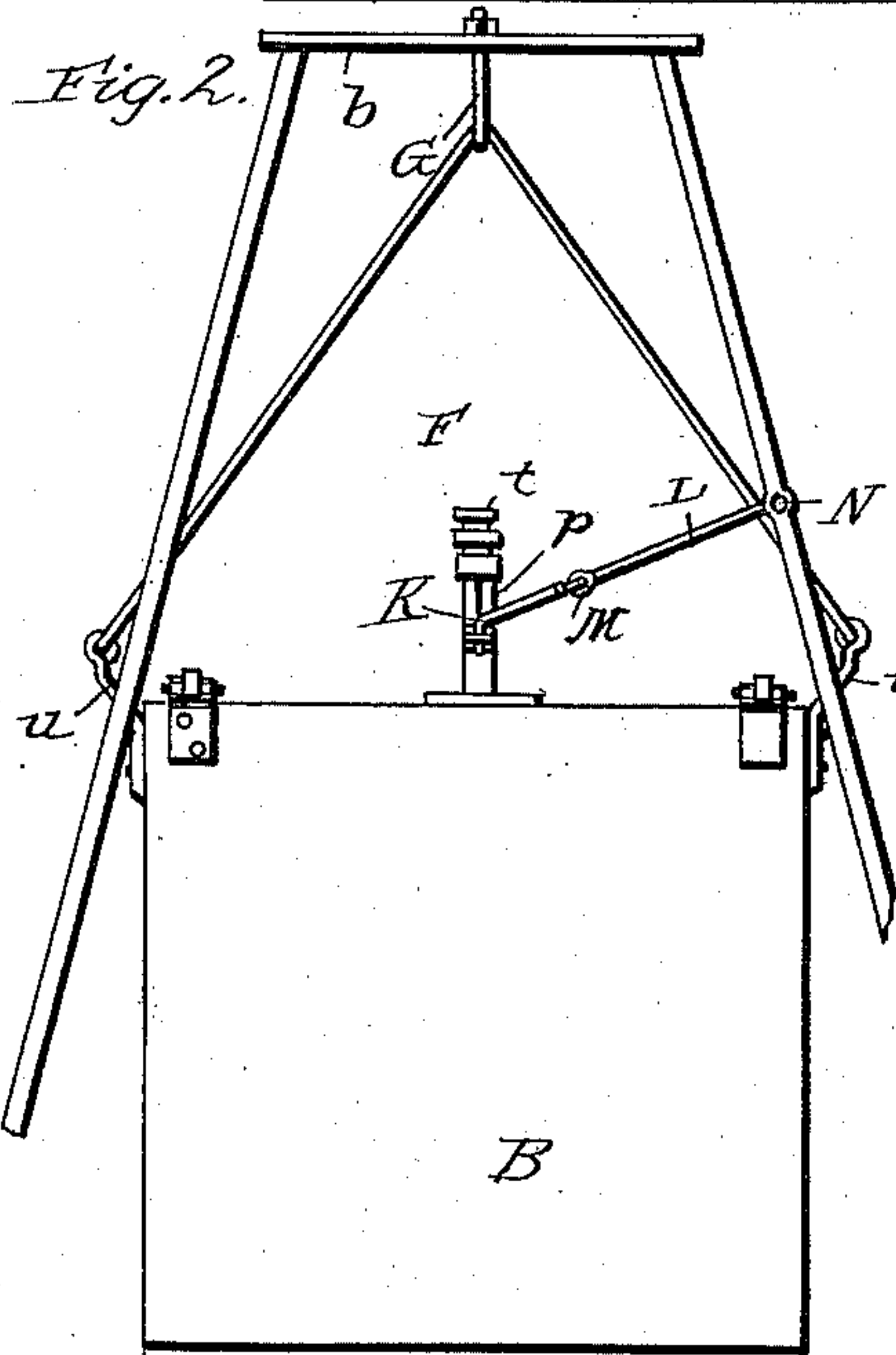
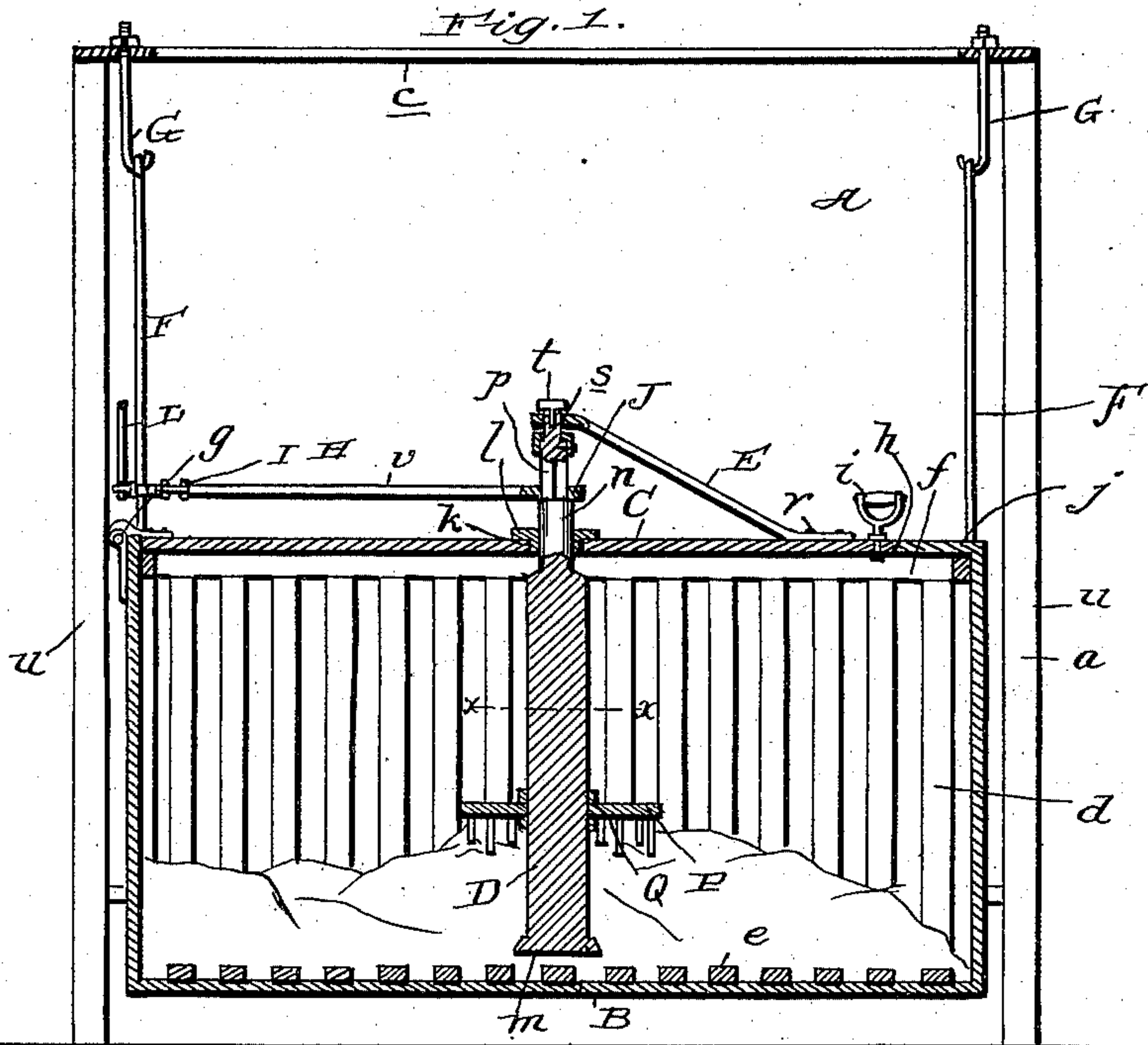


(No Model.)

G. R. CHESNUT.
WASHING MACHINE.

No. 567,703.

Patented Sept. 15, 1896.



Witnesses
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UNITED STATES PATENT OFFICE.

GRANVILLE R. CHESNUT, OF SPIRIT LAKE, IOWA.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 567,703, dated September 15, 1896.

Application filed March 17, 1896. Serial No. 583,616. (No model.)

To all whom it may concern:

Be it known that I, GRANVILLE R. CHESNUT, a citizen of the United States, residing at Spirit Lake, in the county of Dickinson and State of Iowa, 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.

My invention relates to improvements in that class of washing-machines which embody swinging bodies; and it consists in the construction, novel combination, and adaptation of parts hereinafter described, and particularly pointed out in the claim appended.

In the annexed drawings, Figure 1 is a longitudinal sectional view of my improved machine. Fig. 2 is an end view with a part of the supporting-frame broken away. Fig. 3 is a plan view of the body removed from the frame, with parts broken away. Fig. 4 is a cross-sectional view of the agitator-shaft, taken at the point indicated by the dotted line $x x$ on Fig. 1, looking downward; and Fig. 5 is a plan view of a modification, showing the same applied to a part of the tub or body top.

Referring by letter to said drawings, A indicates a frame. This frame is composed of suitable uprights a , which are arranged on inclines, so as to converge at their upper ends, and are connected in pairs by transversely-disposed horizontal bars b , and these transverse or cross bars are connected by a longitudinal bar c . This frame is designed to support the clothes-box, and it is obvious that it may be constructed in any suitable substantial manner to serve the purpose for which it is designed.

B indicates the clothes-box. This box is here shown as of an elongated rectangular form, having its entire inner walls corrugated. The corrugations I have shown as being formed by the employment of vertical strips d and horizontal strips e , which latter are secured to the floor of the box. At the tops of the vertical strips I provide strips f , upon which the cover may close, as shown in Fig. 1 of the drawings.

C indicates the cover. This cover is hinged to one of the end walls, as shown at g , and ex-

tends to the point h , where it may be provided with a suitable hand-grasp i for opening and closing the same, a horizontal strip j being provided, as shown, at the edge of the cover for the attachment of a wringer. The cover is provided with a central vertical aperture k , which may have a washer or metallic ring l for the passage of the agitator-shaft.

D indicates the agitator-shaft. This shaft is of an angular form in cross-section, and is expanded at its lower end, as shown at m , for a purpose which will presently appear. The shaft is rounded at n , where it passes through the cover, and above this rounded portion it is again made angular at p , and its upper end is adapted to receive a brace E. This brace, as partly shown in Fig. 3, has two branches q , which are secured to the cover by screws r or other suitable devices, and said brace has an eye s to receive the upper end of the shaft, which may be held thereto by any suitable means, there being a screw t shown in the present instance taking through the eye of the brace and into the top of the shaft.

The box is provided at each side near its ends with two straps or castings u , having eyes at their upper ends, and into these eyes are hooked the ends of a loop-wire F. This loop is suspended from hanger-rods G, which are hooked at their lower ends and screw-tapped at their upper ends. These upper ends are let through holes in the cross-bars b and receive nuts or other suitable fastening devices. It will thus be seen that the tub is suspended within the frame, and should it be desirable to raise or lower the tub it is simply necessary to manipulate the nuts on the upper ends of the hanger-rods.

H indicates a horizontal lever for oscillating the agitator-shaft. This lever is composed of an inner section v and an outer section w , united by a swivel-joint I. The inner section v is provided with an angular eye J to embrace the angular portion p of the agitator-shaft. The outer end of the outer section w is provided with an eye to receive a hook K on an operating-rod L. This rod L is also composed of two sections united by a swivel-joint M, and is connected at one end to one of the standards or uprights a of a supporting-frame, as shown at n . This connection may be made by a hook on one part

and an eye in the other to engage each other, although I do not wish to be understood as limiting myself to such a construction.

The swivel connection I between the sections
 5 *v w* of lever H is provided in order to enable this section *w* to turn with respect to the section *v* when the body is swung to and fro, and the swivel connection M between the two sections of the rod L is provided in order
 10 to enable the inner section to turn with respect to the outer section when the cover C is raised upon its hinges, so as not to interfere with such raising of the cover.

P indicates the agitator-head. This head
 15 may be of any suitable shape in outline, the preferred shape being triangular, and is provided with a central angular aperture Q to receive the agitator-shaft. This head, which is designed to play loosely on said shaft, is
 20 provided on its under side with depending-pins of varying lengths, as shown. The head is designed to float upon the shaft when water is placed in the box, and is prevented from leaving the shaft by the provision of the ex-
 25 panded portion *m*.

In operation the box is swung, which will cause the agitator-shaft and its head, which is in contact with the clothes in the box, to be oscillated through the medium of the lever
 30 H and the rod L. The clothes and water can be conveniently placed in the box when the cover has been raised, and when thus raised a wringer of any suitable construction can be applied to the strip *j* and operated in the usual
 35 manner. A cock may be provided for drawing off the suds water.

As a modification of the invention, I would dispense with the angular aperture in the lever H and provide said lever with a seg-
 40 mental rack *a'* at its inner end, and I would provide the agitator-shaft with a toothed pin-

ion *b'* to engage the same. It will be seen that the other parts of the machines remain the same, and the operation performed in substantially the same way.

I am aware that a churn box or body can be conveniently substituted for the clothes or suds box when it is desired to use the machine as a churn, and I reserve the right to make such change or substitution as may
 50 fairly fall in the scope of my invention.

In some cases I might dispense with the joints in the lever H, and when this is done a large eye should be provided in the outer end of the outer section, so as to allow consid-
 55 erable play and permit the cover to be raised.

Having described my invention, what I claim is—

The washing-machine described comprising essentially the main frame, the swinging body
 60 or box hung from the main frame, the cover connected in a hinged manner to one end of the body or box, an oscillating shaft arranged in the body or box and carrying a dasher and having its upper portion journaled in and ex-
 65 tending above the cover, the lever connected with the oscillatory shaft and comprising loosely-connected sections, and the rod L, disposed at right-angles to the lever and ar-
 70 ranged above the hinged end of the cover and having an inner section connected to the outer section of the lever, an outer section connected to the main frame and the swivel connection M, between said inner and outer sec-
 75 tions, substantially as and for the purpose set forth.

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

GRANVILLE R. CHESNUT.

Witnesses:

A. M. JOHNSON,

R. SPIRBECK.