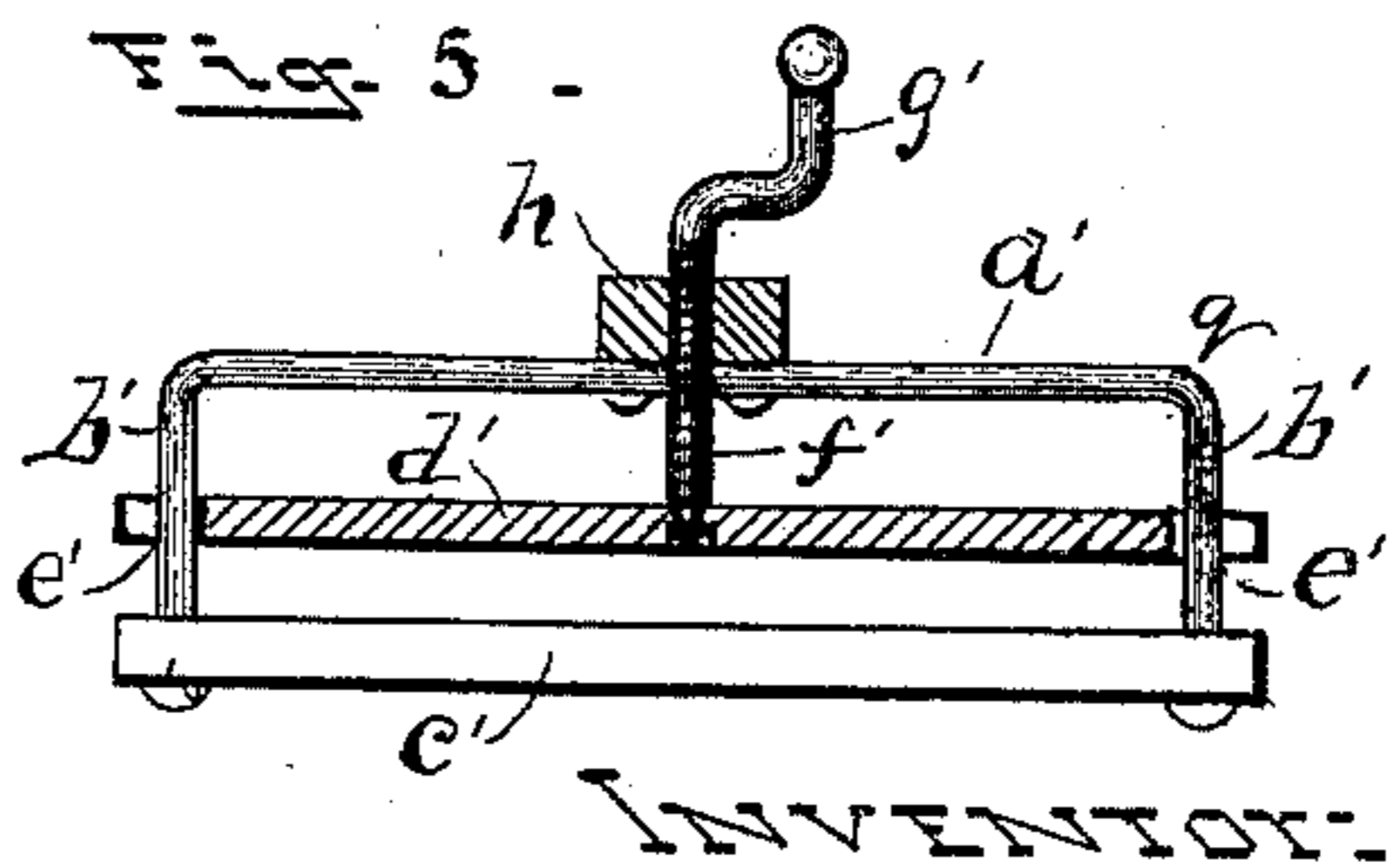
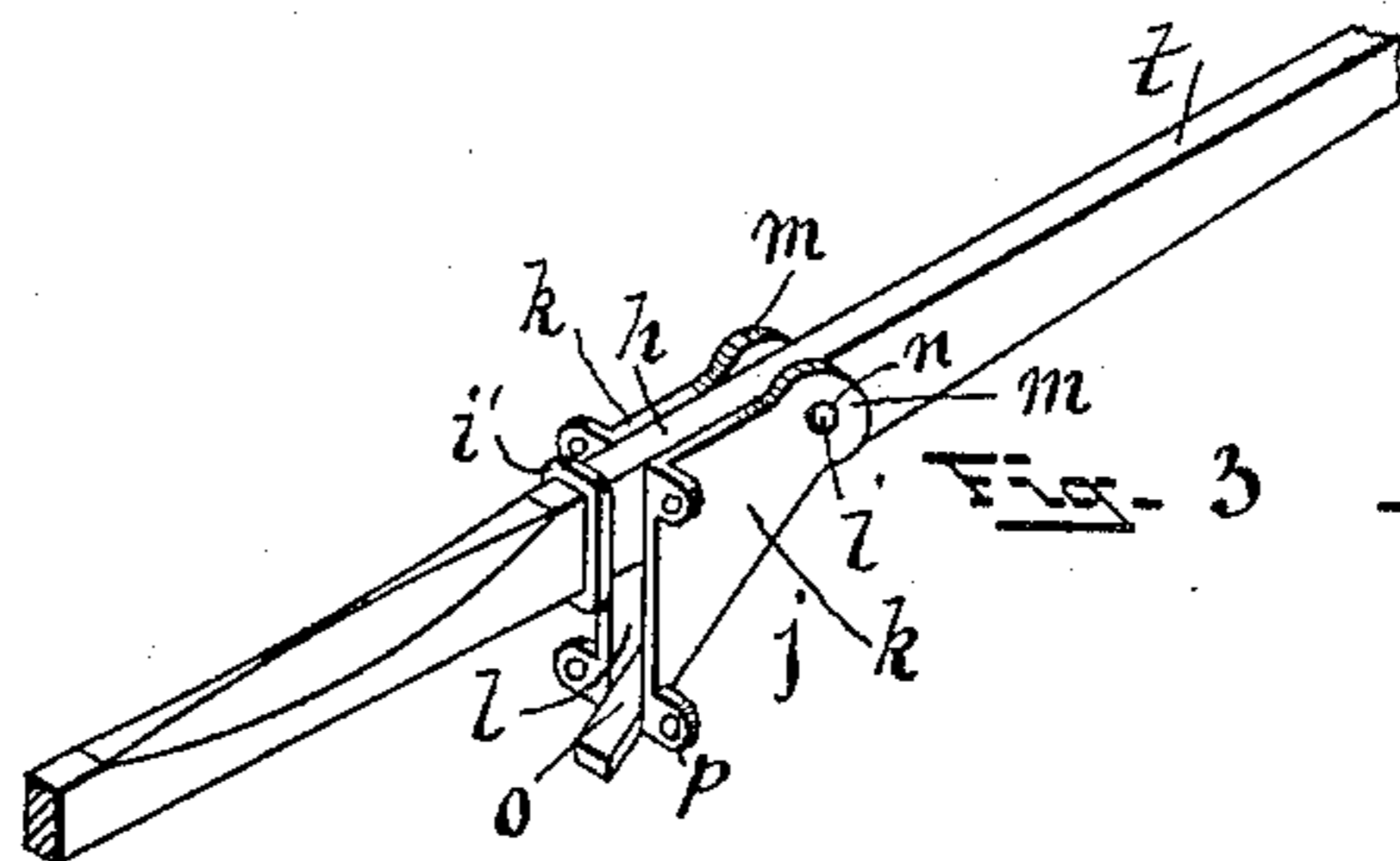
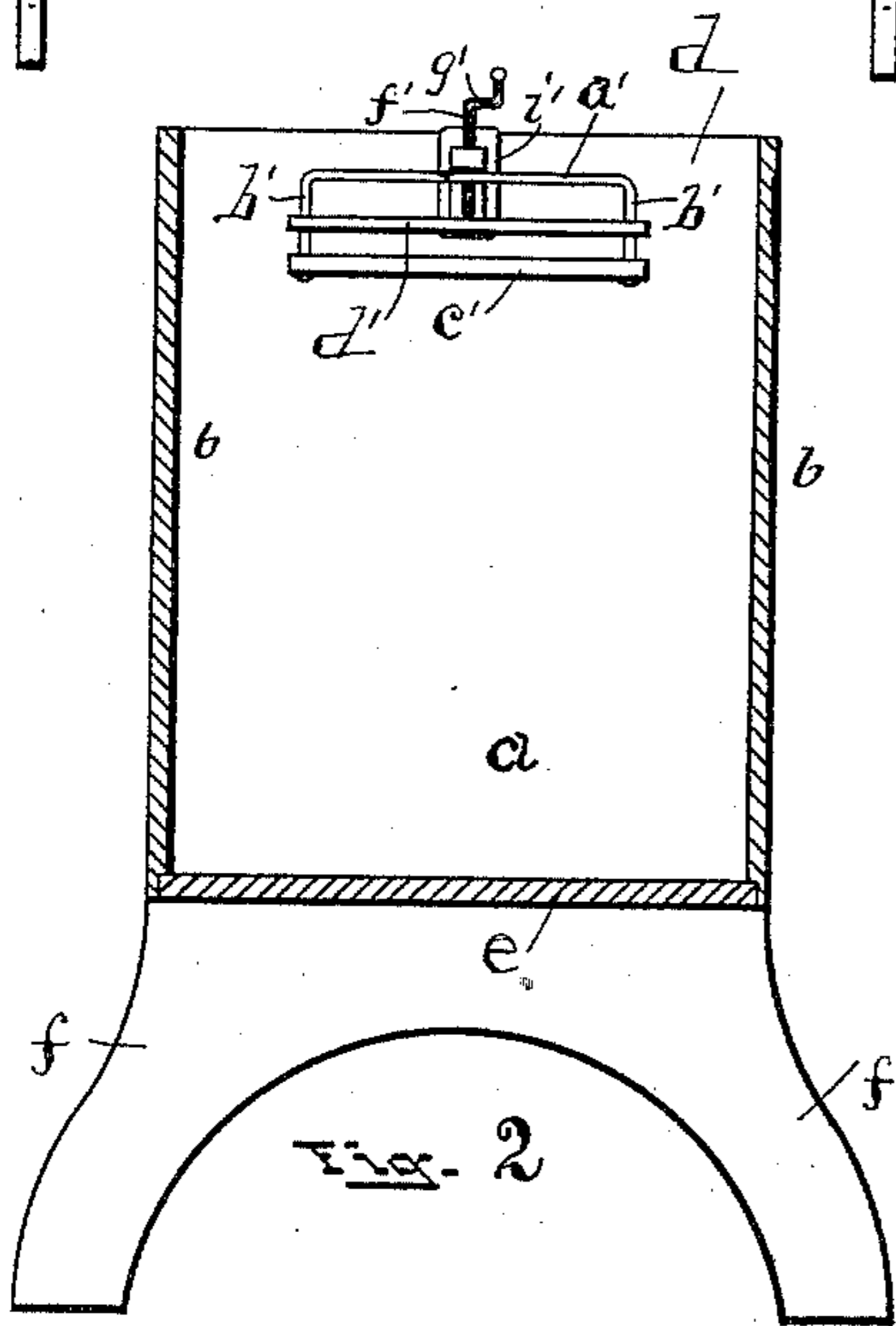
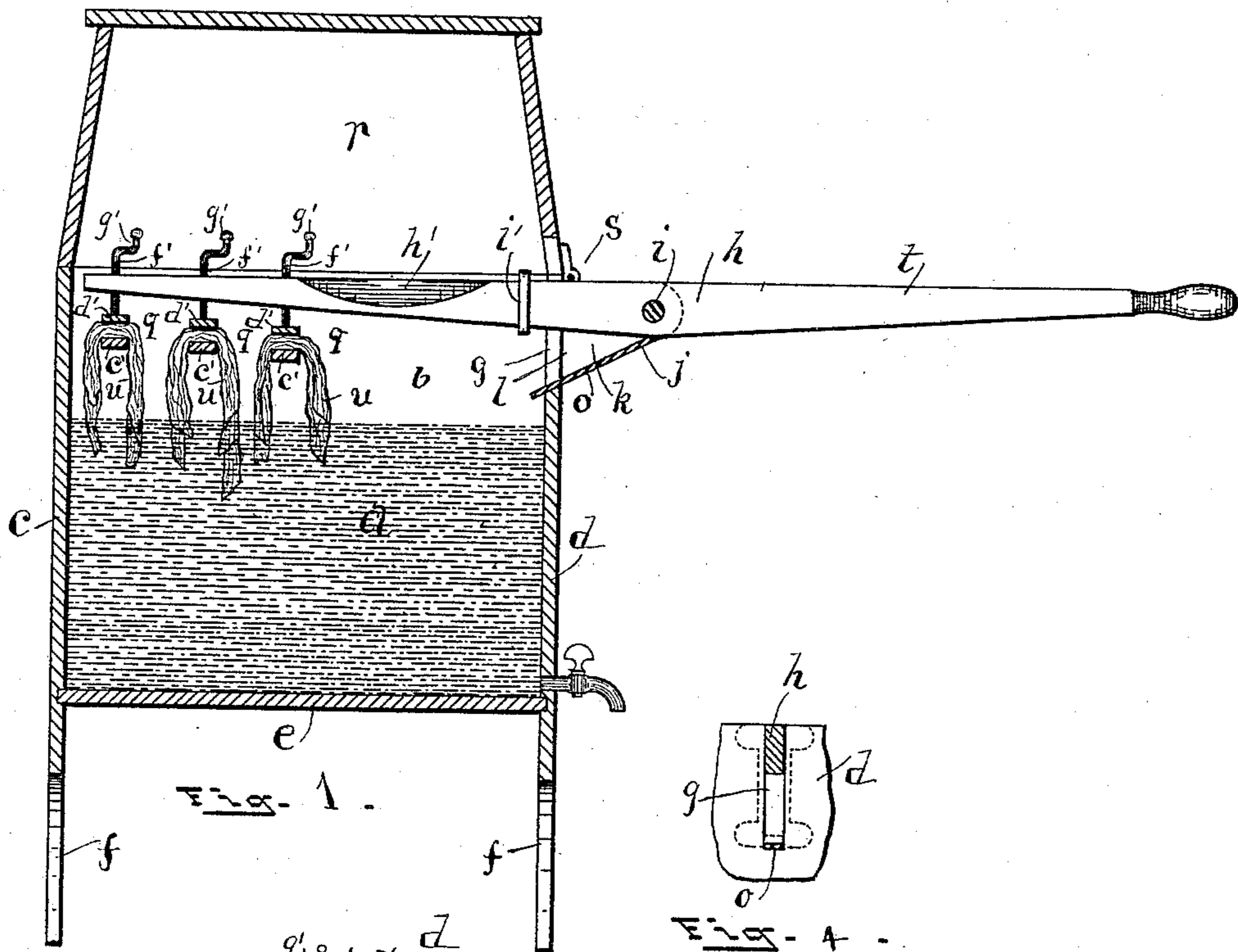


(No Model.)

P. DOWNING.
WASHING MACHINE.

No. 432,747.

Patented July 22, 1890.



ATTEST.

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INVENTOR.

Pamealia Downing.

By
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UNITED STATES PATENT OFFICE.

PAMEALIA DOWNING, OF BAY CITY, MICHIGAN.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 432,747, dated July 22, 1890.

Application filed December 9, 1889. Serial No. 333,083. (No model.)

To all whom it may concern:

Be it known that I, PAMEALIA DOWNING, a citizen of the United States, residing at Bay City, in the county of Bay and State of Michigan, 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 of reference marked thereon, which form a part of this specification.

My invention relates to that class of washing-machines in which the cleansing process is accomplished by repeatedly immersing the clothes in the suds and emerging the same from the suds; and the invention consists in the combination of a suitable suds-reservoir and a lever constructed and arranged with one free end projecting into the reservoir and provided with suitable clothes-holders and capable of an oscillating movement, whereby the clothes are submerged and withdrawn from the suds; and the invention further consists in the form and construction of the several parts of the device, which I shall hereinafter more fully describe, and especially point out in the claims; and one object of my invention is to provide suitable devices whereby the operation of cleansing the clothes by the said process is rendered more easy and rapid.

Another object of the invention is to provide a cheap, effective, easily constructed and operated machine, by the operation of which clothes may be cleansed without liability of wearing the fabric or tearing off buttons, or otherwise injuring the garments.

I attain these objects by means of the devices illustrated in the accompanying drawings, in which—

Figure 1 is a longitudinal vertical central section of my improved machine. Fig. 2 is a transverse vertical section of the same, the cover removed. Fig. 3 is a perspective view of a portion of the oscillating lever detached and of the casting for holding the same in position. Fig. 4 is a side view of the clothes-holding device with section of the lever and bar *d'*. Fig. 5 is a detached portion of the side of the suds-reservoir containing the slot for the lever, and showing section of the lever.

Similar letters indicate like parts throughout the several views.

a is a suds-reservoir of any suitable dimension and construction, and, as herein shown, is composed of the sides *b*, end pieces *c* and *d*, and the bottom *e*, put together in the form of a box, upon the lower portion of which is provided suitable legs *f* for supporting the same. Upon the upper edge of the end piece *d* is arranged a slot *g*, through which is passed a lever *h*, which is pivoted at *i* to a casting *j*, which is firmly bolted to the outside of the end piece *d*.

As it is necessary to pivot the lever at some distance from the side piece *d*, the casting *j* is provided with the vertical portions *k*, projecting at right angles with the side *d* and on each side of the slot *g*, having the space *l* between the portions *k* to receive the lever, and on the outer portion of the side portions is arranged suitable supports *m*, provided with openings *n* for the pivot *i*. The under side of the space *l* is closed by an inclined plate *o*, which also extends beyond the inner edges of the sides *d* and to the inner side of the end piece *d* and rests upon the bottom of the slot *g*, the inner edges of the sides *k* being also provided with laterally-projecting lugs which are provided with suitable openings *p* for securing the casting to the end piece *d*. The inner end of the lever *h* is provided with any desired number of clothes-holders *q*, which, as herein shown, are constructed as follows:

a' is a yoke firmly secured to the under side of the lever and projecting laterally therefrom and provided with the downwardly-extending portions *b'*, to the lower end of which is rigidly secured the cross-piece *c'*. A movable cross-piece *d'*, provided with end openings *e'*, is first, however, placed upon the portions *b'*, the end opening permitting a vertical adjustment of the cross-piece; and *f'* is an adjusting-screw passed through a threaded opening in the lever, with its lower end pivotally secured to the central portion of the cross-piece *d'* and with its upper end provided with suitable devices for revolving the screw, and which are herein shown in the form of a crank *g'*.

The upper edge of the lever *h* on the portion within the reservoir is formed with chamfered sides *h'*, and on the portion just

inside of the reservoir and adjacent to the slot *g* is arranged a deflecting-plate *i'*, which projects from and surrounds the lever.

r is a box-cover of suitable horizontal area to fit upon the upper edges of the side and end pieces of the reservoir and of a suitable vertical dimension to allow the lever *h* to be oscillated to the required distance, and one end of the cover is pivoted at *s* to the upper portion of the end *d* of the reservoir, which permits the cover to be thrown over and supported upon the outer arm *t* of the lever.

In practice the cover *r* is thrown back upon the arm *t* of the lever, and this elevates the inner end of the lever and the clothes-holders above the edge of the suds-reservoir. The clothes *u* are then passed between the cross-pieces of the holders *q*, and the screw *f'* is turned to clamp the clothes in position. The cover is then placed over the reservoir, and the clothes then may be submerged in the suds by raising the outer end *t* of the lever *h*, and are withdrawn from the suds by depressing the outer end of the lever, which lifts the inner end into the cover portion, where the saturated clothes are allowed to drain for an instant, when the operation is again repeated until the clothes are entirely cleansed, when the cover is again thrown back upon the lever, and the clothes may then be removed by attaching a wringer to the front end piece *c* and wringing the clothes thereby direct from the holders to the basket.

It will be seen, of course, that the lever is provided with the upper chamfered edges *h'*, in order to allow the suds to run freely off when the inner end of the lever is raised, and the deflecting-plate *i'* turns downward and stops any water that may be liable to run down the inclined lever. The casting *j* is also arranged with the sides *k* and the bottom plate *l*, as described, in order to prevent

any water from splashing out through the slot *g* during the washing operation, which is a very essential and important feature of the invention.

A very great advantage is gained by my improved machine, as no rubbing, pounding, or pressing of the clothing is used in the operation, and thin and sleazy material can be cleansed, as well as the coarser and heavier fabrics, without liability of wearing or tearing the fabrics or tearing off buttons, &c., and the machine is also cheaply and easily constructed and can be operated by any one without experience.

What I claim is—

1. The combination, in a washing-machine, with the reservoir *a*, provided in one side with a slot *g*, of a lever *h*, with its middle portion pivoted within the said slot and having on its inner end clothes-holders *q*, substantially as set forth.

2. The combination, in a washing-machine, of the reservoir *a*, provided with a slot *g* in one side, the lever *h*, pivoted within the said slot and with one end projecting into the reservoir and having the yokes *a'* within the reservoir and secured to the under side of the said lever and provided with the downwardly-projecting portions *b'*, and the rigid cross-piece *c'*, the movable cross-piece *d'*, having end openings passed upon the said portions *b'*, and the adjustable screw *f'*, passed through the lever and with its lower end upon the central portion of the cross-piece *d'*, substantially as set forth.

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

PAMEALIA DOWNING.

Witnesses:

JAS. E. THOMAS,
G. P. THOMAS.