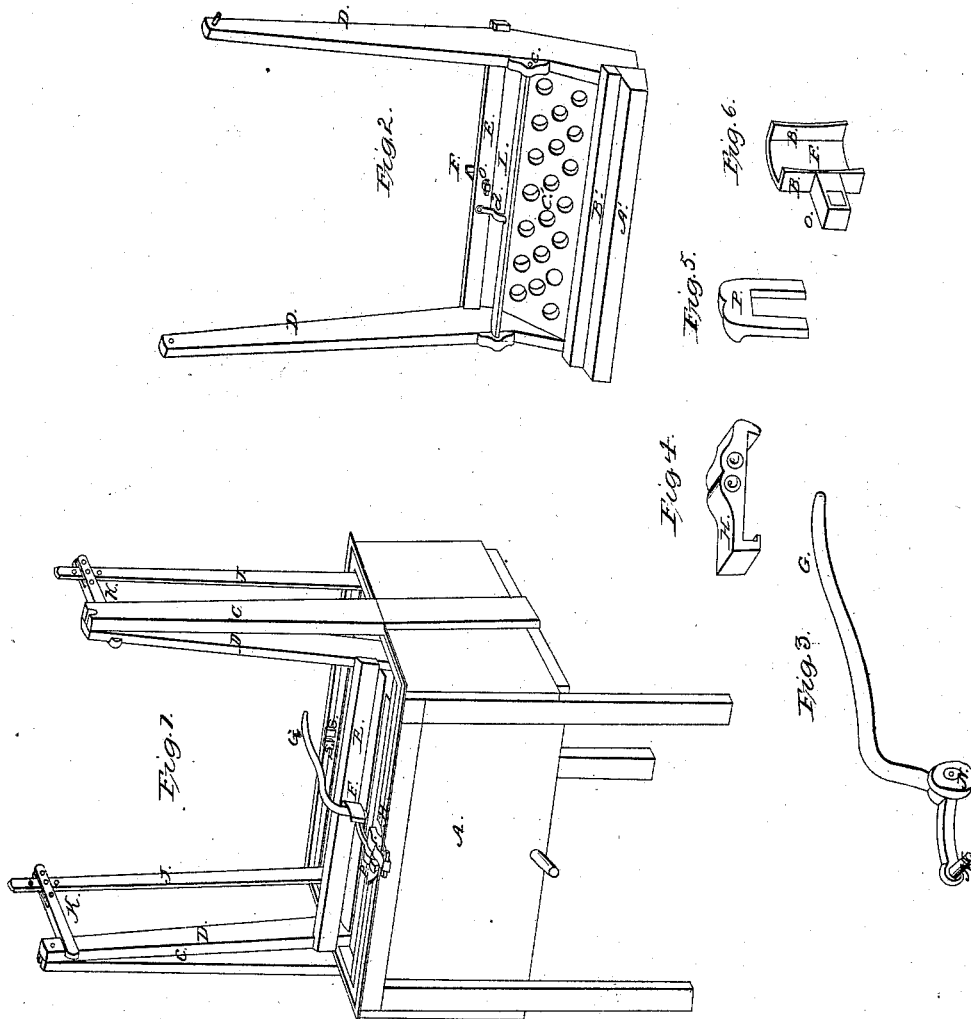


W. E. Arnold,
Washing Machine,
N^o 3,665. *Patented July 13, 1844.*



Witnesses:

Peter Sharcraft.
Eliza D. White

Inventor:

W. E. Arnold.

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Fig. 11.

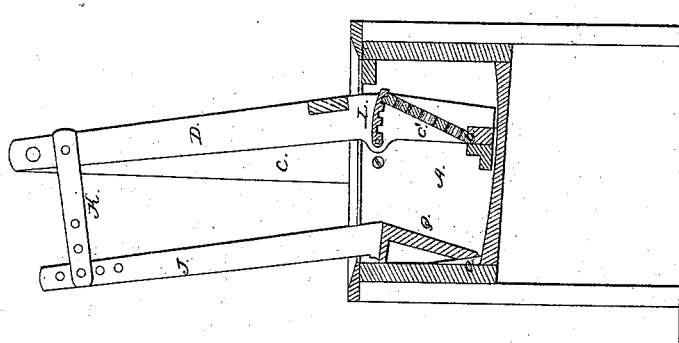


Fig. 9.

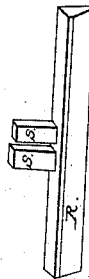


Fig. 8.

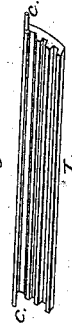


Fig. 7.

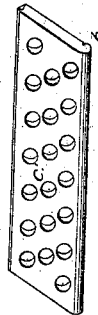
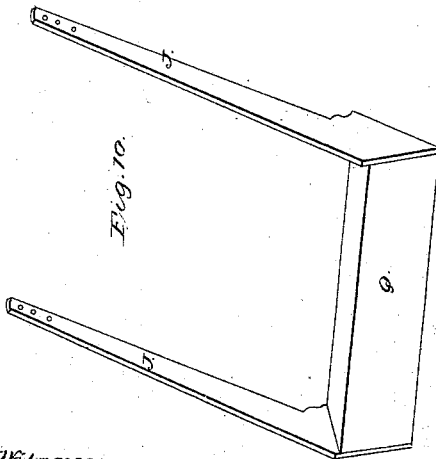


Fig. 10.



Witnesses:

John Sharcraft.
Elyah D. White.

Inventor:

W. E. Arnold.

UNITED STATES PATENT OFFICE.

WM. E. ARNOLD, OF ROCHESTER, NEW YORK.

WASHING-MACHINE.

Specification of Letters Patent No. 3,665, dated July 13, 1844.

To all whom it may concern:

Be it known that I, WILLIAM E. ARNOLD, of the city of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in the Manner of Constructing Machines for Washing Clothes; and I do hereby declare that the following is a full and exact description thereof.

In the accompanying drawing, Figure 1 is a perspective representation of my machine, taken on its rear side or that opposite to the position of the person engaged in working it. Fig. 11, is a vertical cross section thereof, and the other figures represent parts in detail, which will be presently described.

This machine may, of course, be varied in size, but I ordinarily make it two feet long, and fourteen inches wide on the inside; about eleven inches deep on the back; and nine inches on the front side.

A, Figs. 1, and 11, is the body of the box. A piece of plank *a*, Fig. 11, is made fast along the lower part of the front, to give it a slope inward.

C, C, are two vertical posts, to which the vibrating dasher is hung. This vibrating dasher is shown separately in Fig. 2, where C' is a dash board perforated with a considerable number of holes. This board is shown separately in Fig. 7.

D, D, are the arms by which it is suspended to the uprights C, C. The dash board C', is so affixed to the vibrating dashes as that its inclination may be varied at pleasure. This device has been found to be of considerable importance, as the turning over of the articles which are being washed, as resulting from their kind and quantity, and also the force with which the dasher acts upon them, are governed, in a great degree, by the inclination of the said board. Its lower edge I so form as to constitute a joint upon which it will turn, when received within a suitable hollow, as shown at *b*, Figs. 7 and 11, and its upper edge is received within grooves in a cap-piece L, the under side of which is shown separately in Fig. 8. This cap piece turns on joint pins *c*, *c*, in the dasher sides D, D.

d, is a button which bears on the top of the cap piece and holds it in place; by this arrangement the inclination of the dasher board may be instantaneously varied. The

lower part of the dasher is formed into steps A', B', as in many other machines.

The apparatus by which I move the dasher back and forth is seen in part in Figs. 1 and 2, and the separate parts of which it is composed, in Figs. 3, 4, 5, and 6.

G, Fig. 3, is a lever, which has a fulcrum pin M, at its rear end, and carries a friction roller N, which is received between the projecting sides, or flanches, B, B, of a box F, which is attached to the cross bar E, of the dasher, by means of a tenon O, or otherwise. The sides, or flanches B, B, of this box, are usually curved vertically, but they will answer if straight. Their distance apart is such as to allow the friction roller N, to pass up and down freely between them.

H, Fig. 4, is a fulcrum piece which is furnished with two or three holes *e*, *e*, to receive the fulcrum pin M, which may be shifted from one hole to the other to adapt the dasher to the quantity of clothes; this fulcrum piece is shown as attached to the side of the box, at H, Fig. 1.

P, Fig. 5, is a staple piece which falls into mortises in the edge of the trough, and serves to keep the fulcrum pin M, in place, and when lifted out allows said fulcrum pin to be shifted instantaneously.

Fig. 10 represents what I denominate a reciprocating wedge, which is shown also in the section, Fig. 11, and some of its appendages in Fig. 1.

Q, is the wedge part of this apparatus; this may be about four and a half inches wide, and two inches thick at its upper side, its lower being brought to an edge. Its length is equal, nearly, to that of the inside of the box, and it is attached to vertical arms J, J. At the upper ends these are attached by shifting joint pins to arms K, K, that project out horizontally from the arms D, D, of the vibrating dasher, as shown at K, K, Fig. 1. It will be seen that under this arrangement the wedge *a*, will move up and down in contact, or nearly so, with the inside of the front of the trough, as the dasher is moved back and forth. This wedge has the effect of preventing the clothes from rising too high, and as it is adjustable, it is readily adapted to the quantity contained in the trough. As the dasher is drawn back toward the back-side of the machine, the wedge is depressed between the box and the clothes, causing them to turn over toward

the dasher, thus rendering their rolling over at the proper time a thing of certainty.

I sometimes substitute an adjustable for the reciprocating wedge, which in part
5 answers the same purpose, and is less costly. This is shown at R, Fig. 9. I place this wedge within the trough in a situation corresponding with that of the wedge Q, and by means of an adjusting thumb screw,
10 which passes between the studs S, S, I affix said wedge in such situation as may be found best adapted to the kind and quantity of clothes to be acted upon.

Having thus fully described the nature of

my improvements in the washing machine, 15 what I claim therein as new, and desire to secure by Letters Patent, is—

1. The varying of the inclination of the dasher board, in the manner, and for the purpose, herein described and represented. 20

2. I likewise claim the application and use of the reciprocating wedge, constructed and operating as above set forth.

WM. E. ARNOLD.

Witnesses:

THOS. P. JONES,

WM. BISHOP.