

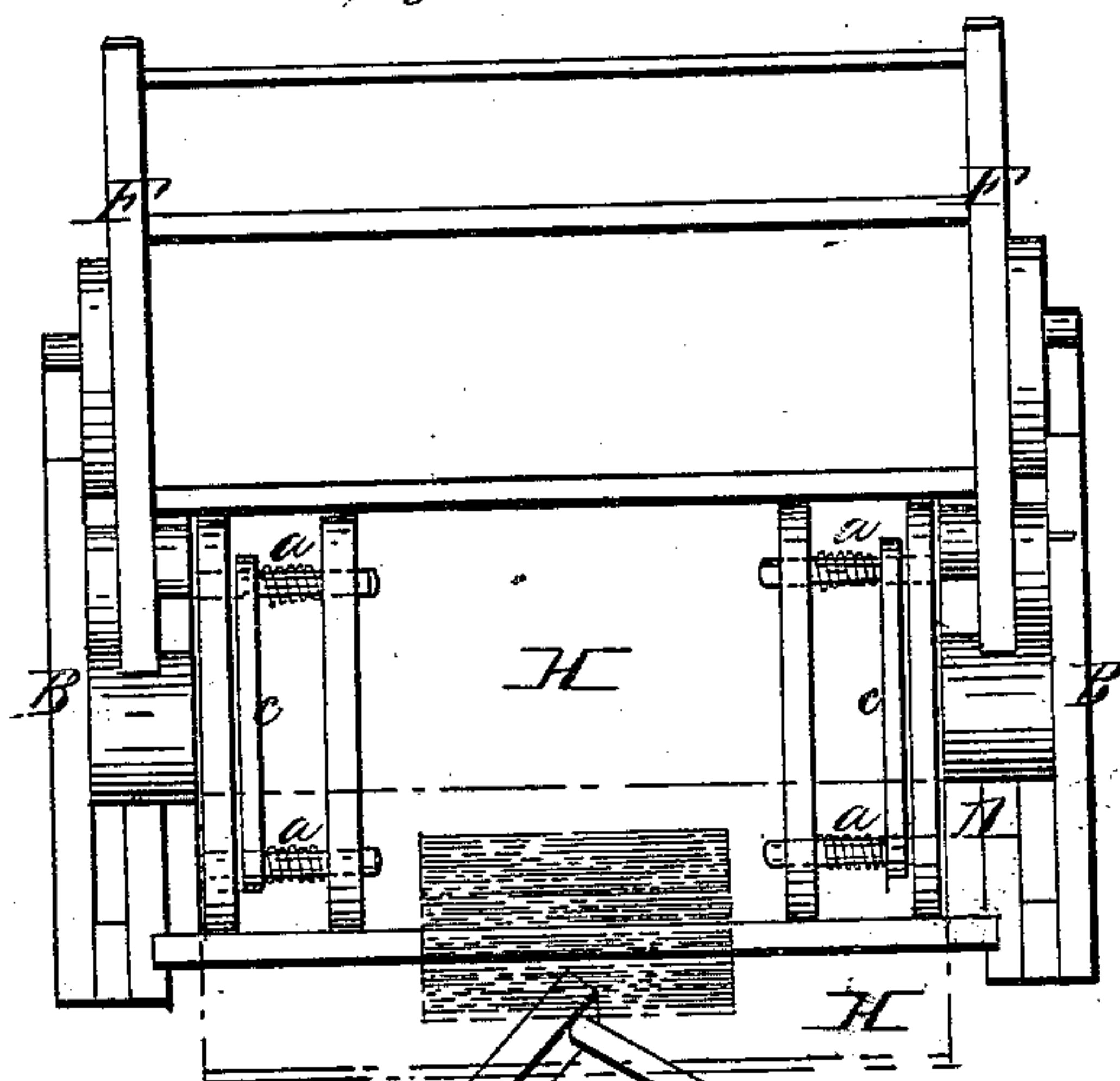
*E. I. Walker,*

*Washing Machine.*

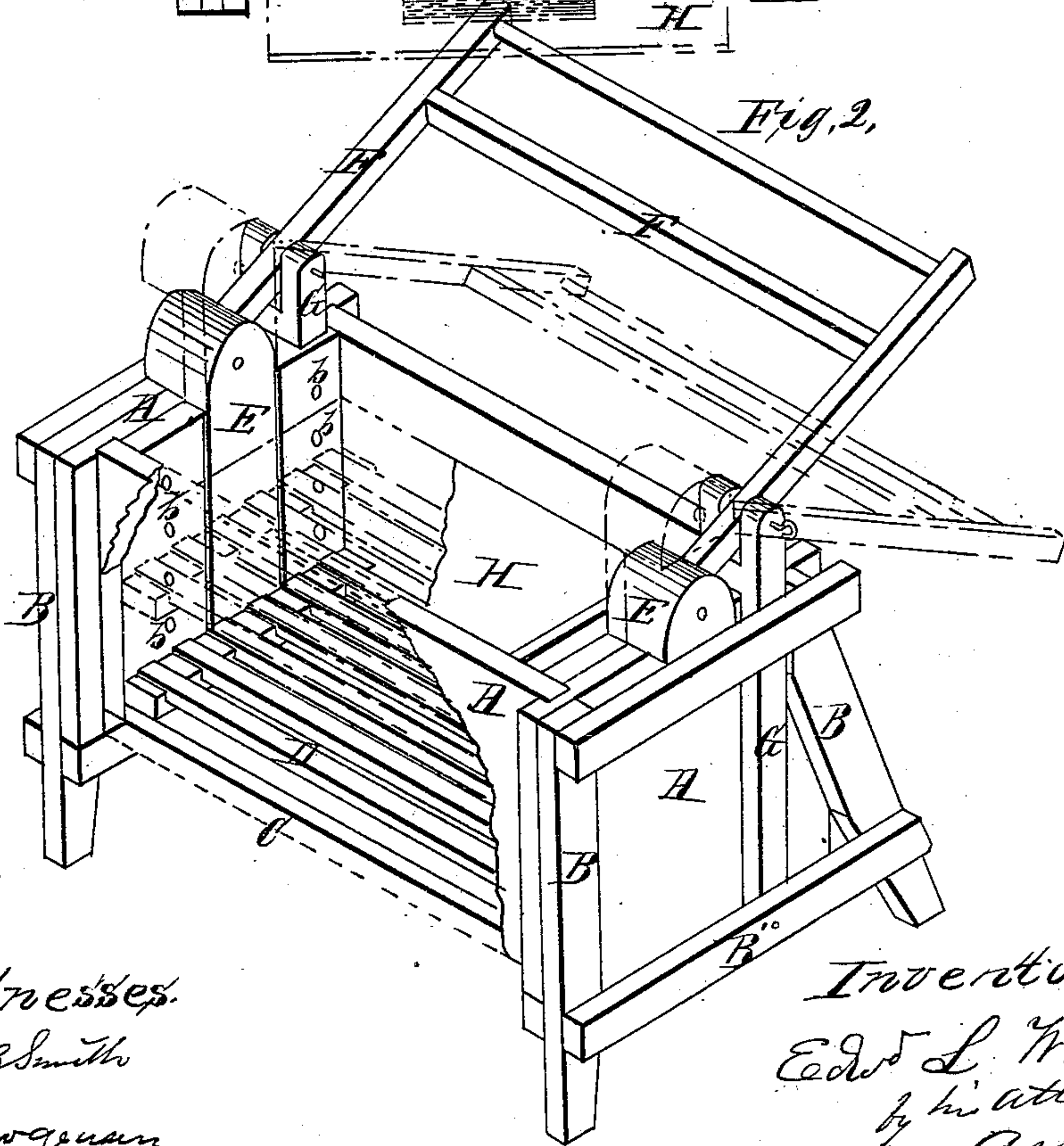
*N<sup>o</sup> 64,386.*

*Patented Apr. 30, 1867.*

*Fig. 1*



*Fig. 2,*



*Witnesses.*  
*N. B. Smith*  
*Ch. J. J. J. J.*

*Inventor,*  
*Edw. L. Walker*  
*by his atty*  
*Am. Smith*



# United States Patent Office.

EDWARD L. WALKER, OF JENNER'S X-ROADS, PENNSYLVANIA.

*Letters Patent No. 64,386, dated April 30, 1867.*

## IMPROVED WASHING MACHINE.

*The Schedule referred to in these Letters Patent and making part of the same.*

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, EDWARD L. WALKER, of Jenner's X-Roads, Somerset county, Pennsylvania, have invented a new and useful improvement in Washing Machines; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making part of this specification, in which—

Figure 1 is a plan or top view of a washing machine embracing my improvements; and

Figure 2 is a perspective view, with one side and the removable cover broken away, in part, to show the arrangement of the lifting compressor, &c.

Similar letters of reference indicate the same parts in both figures.

My invention consists in the employment of a removable top or cover against which the compression of the articles of clothing to be washed is effected by means of a lifting compressor, upon which the clothes are placed, whereby a thorough shaking up and consequently a rapid cleansing is effected, as hereinafter explained. It further consists in the arrangement of means for operating the lifting compressor, consisting of uprights secured thereto and working in grooves in the sides of the tub or through perforations in the removable cover, and a lever-frame or its equivalent secured to said uprights and having its fulcrum in pivoted standards, as hereinafter explained; and it further consists in providing the removable cover, against which the compression of the clothes is effected, and which is arranged to turn over against the side of the tub, as hereinafter explained, with a corrugated rubbing or "wash-board" surface, upon which the clothes may be rubbed out by hand after the necessary pounding action has been effected.

To enable others to understand and use my invention, I will describe the same with reference to the drawings, in which—

A A represent the sides of the tub; B, the standard or frame in which said tub is mounted to give it any desired or convenient elevation from the ground; C, the bottom of the tub resting on cross-pieces of the frame; D, the lifting compressor upon which the clothing is placed, which may be made of slats, as shown, or in any desired manner, and to which are connected uprights, E, arranged to work in grooves in the end of the tub, or, if preferred, through slots or perforations in the removable cover H hereinafter referred to. F is a lever-frame pivoted at the ends of its shorter arms to uprights E, and having its fulcrum in standards G, which are pivoted at their lower ends in cross-pieces B' of the stand or frame B in such manner as to permit the upper ends thereof to vibrate to and from the uprights E, thereby securing a vertical movement of the uprights, the vibration of the standards serving to compensate for the vibration of the lever-frame and consequent varying distance between the uprights E and standards G. H is a removable cover made adjustable in height, or in its distance from the lifting compressor, in such manner as to adapt the machine to the quantity of clothing to be operated upon. It is fastened in the desired position by means of spring-bolts or pins, *a*, entering sockets *b* formed in the sides or ends of the tub to receive them. These pins or bolts are operated by means of bars or levers, *c*, arranged in such manner as that any one or all of the pins or bolts may be withdrawn at pleasure. A series of holes or sockets, *b*, arranged as shown in fig. 2, provides for the necessary adjustment of the height of the cover. The cover is provided on its under surface with a corrugated rubbing board in the manner shown in red lines, fig. 1, for the purpose of affording a convenient means for the usual rubbing out by hand after the necessary pounding of the clothes has been effected, as hereinafter explained.

The operation is as follows: The cover being removed or turned up on one side in the manner shown in red lines, fig. 1, the clothing, or articles to be washed, is spread evenly upon the compressor D; the cover is then adjusted over it at the desired height, according to the amount of clothing in the tub, and in such manner as that the surface of the cover shall be beneath the water contained in the tub to prevent splashing when the long arm of the lever-frame is operated or thrown down in such manner as to throw or compress the clothing with any desired force against the cover H, thereby bringing the said compressor, and the levers operating it, into the position shown in red lines, fig. 2, when the motion of the lever is reversed, and the compressor, with the clothing upon it, is forced downward again into the position shown in black lines, fig. 2, the clothing dropping down by its own gravity through the water, and being loosened up and separated by the action of the water thereon. This operation is repeated as long as is necessary to effect a thorough cleansing of the articles



being washed. A change of the water in the tub may be effected, if desired, without removing the clothes or the cover, by drawing off the water by means of a spigot or cock at or near the bottom of the tub, and pouring clean water upon the cover. After the clothing has been sufficiently operated upon as above described, the pins or bolts upon one side being withdrawn, the cover may be turned over upon the side opposite the lever-frame, as shown in red lines, fig. 1, and the clothes may be rubbed out by hand upon the rubbing surface formed thereon in the usual manner.

By the construction herein described, it will be seen that while the necessary pounding of the clothes is thoroughly effected by the lifting compressor, by the withdrawal of the compressor which forms their support they are allowed to drop by their own gravity through the water in the tub, which serves effectually to loosen and separate them before the compressing action is repeated, whereas in the usual method they are compacted into a mass in the bottom of the tub, and consequently the water fails to act, except upon the surface, and the cleansing is imperfectly effected.

I have shown one good way in which my improvement may be carried out in practice; but it will be obvious that changes may be made in the form and construction of some of the parts, such as the tub and lifting compressor, without departing from my invention.

What I claim, and desire to secure by Letters Patent of the United States, is—

1. The removable cover or its equivalent, against which the compression of the clothes is effected, substantially as described.
2. The compressor operated from beneath against the stationary or adjustable cover or its equivalent, substantially as described.
3. The box or tub provided with a series of sockets, or their equivalents, for graduating or adjusting the height of the removable top or cover, substantially as described.
4. The arrangement of means for operating the lifting compressor, consisting of uprights attached to said compressor, pivoted fulcrum standards, and the lever-frame, or their equivalents, substantially as described.
5. A compressing cover provided with a rubber-board on its under surface, and arranged to turn on pivots over against the side of the frame, in the manner and for the purpose described.

In testimony whereof I have hereunto subscribed my name this 29th day of March, 1867.

EDWARD L. WALKER.

Witnesses:

N. B. SMITH,  
EDM. F. BROWN.