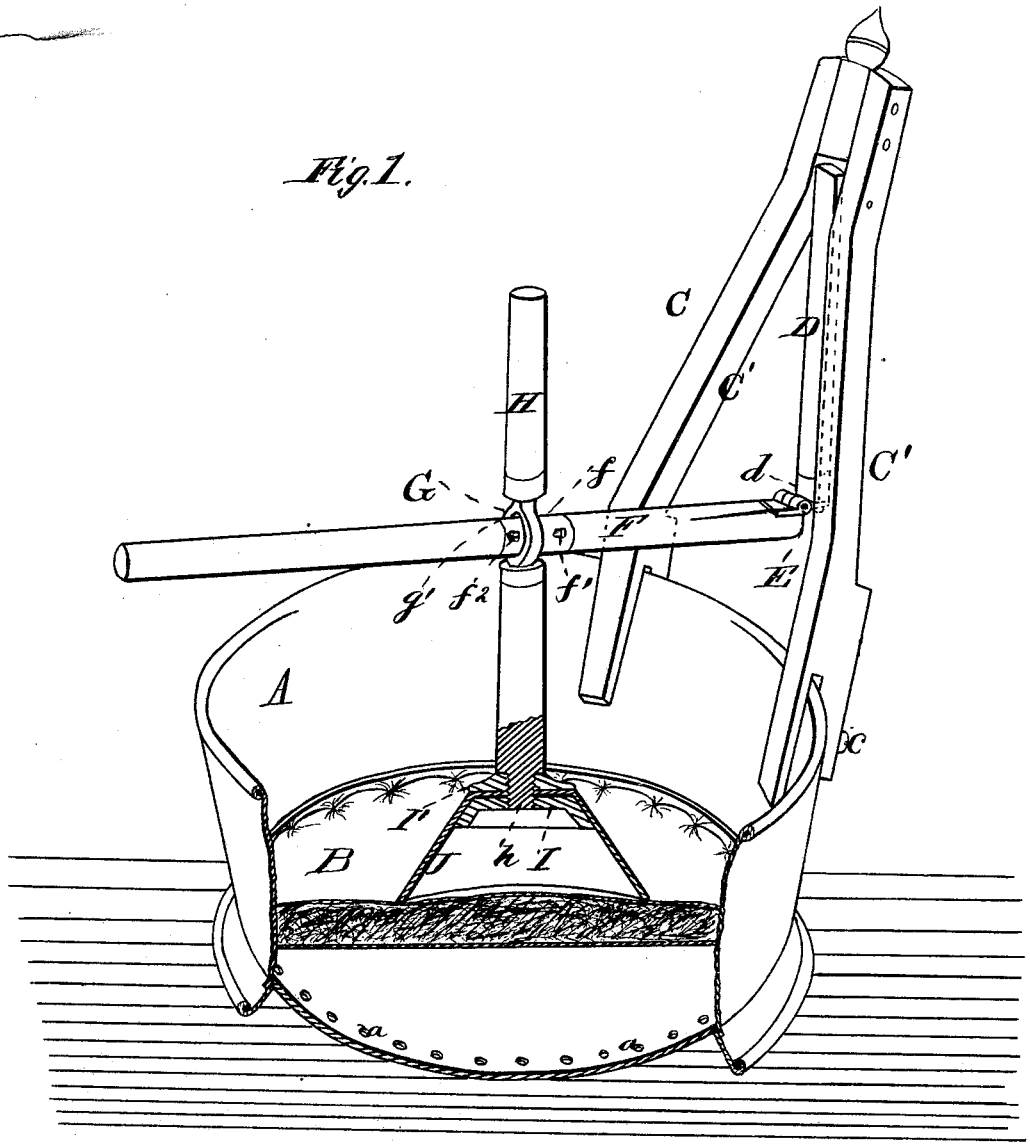
2 Sheets—Sheet 1.

J. TAYLOR.

WASHING-MACHINE.

No. 188,695. Patented March 20, 1877.

Fig. 1.



WITNESSES

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2 Sheets—Sheet 2.

J. TAYLOR.

WASHING-MACHINE.

No. 188,695. Patented March 20, 1877.

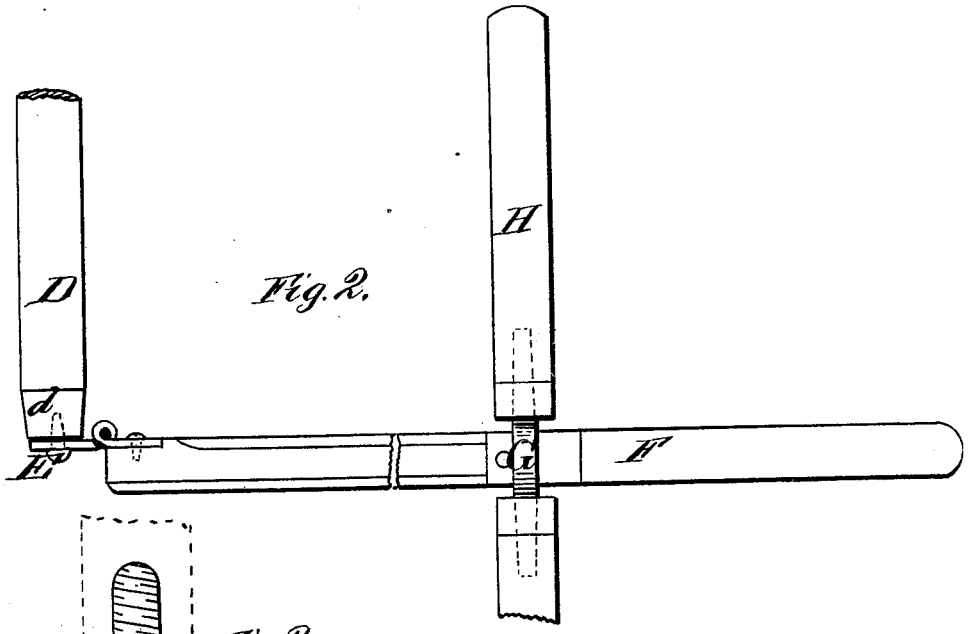


Fig. 2.

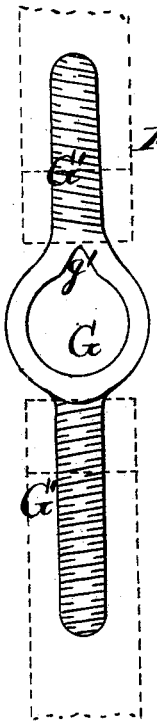


Fig. 3.

Fig. 4.

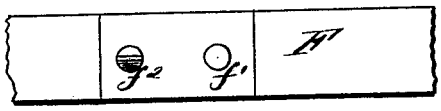
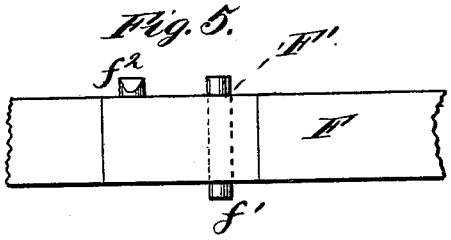


Fig. 5.



WITNESSES

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UNITED STATES PATENT OFFICE.

JEREMY TAYLOR, OF THREE RIVERS, MICHIGAN.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **188,695**, dated March 20, 1877; application filed November 4, 1876.

To all whom it may concern:

Be it known that I, JEREMY TAYLOR, of Three Rivers, in the county of St. Joseph and State of Michigan, have invented a new and valuable 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 a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a perspective view of washing-machine, parts sectioned. Figs. 2, 3, 4, and 5 are detail views of the same.

This invention relates to that class of washing-machines whereby pneumatic pressure is applied to force water and soap-suds through clothes and other fabrics. The said invention consists in the novel construction and arrangement of the parts, as will be hereinafter fully set forth, and will be pointed out in the claims.

In the annexed drawings, A designates a wash-tub, the bottom of which is provided with a circular series of perforations, *a a*, over which lies a flexible pad, B. C designates a frame, consisting of two outwardly-inclined standards, C′ C′, which converge upwardly, and which are cleft at their bottom ends, where they set upon, and on both sides of, the rim of tub A. Set-screws *c*, one of which is shown in the drawing, secure said standards to the side of said tub, detachably, but firmly. Said frame C inclines slightly outward. Between the contracted upper ends of standards C′ C′ is pivoted the upper end of a hanging arm, D, which is capable of swinging backward and forward. To the lower end of this arm is secured a downward-extending stud, *d*, on which is pivoted the rear end of a hinged strap, forming part of a hinge, E, which connects said lower part of said arm to one end of an operating-lever, F. The pivotal attachment of said strap allows the lateral vibration of said lever, and the hinge allows its vertical vibration. A ball-and-socket joint may be substituted for said pivoted hinge, if preferred. The pendulous arrangement of arm D allows said lever to be moved back and forward, so that every part of the bottom of said wash-tub may be reached by the air-compressing cone, hereafter described.

On said lever F, about the middle thereof, is secured a cylindrical band or sleeve, *f*, on which are formed lugs or studs f^1 f^2, between which lugs sets loosely a large metal eye or ring, G. Said eye or ring is formed in the middle portion of an upright plunger or pounding-rod, H, the lower end of which is provided with a screw-threaded extension, *h*, that passes through collars I I′. By means of these collars the lower end of said rod is attached to the upper part of a truncated metal air-compressing cone, J, the flattened top of which is clamped between said collars. Lower collar I is screw-tapped to receive said screw-threaded extension, and it is also hollowed out at its under side, so as to have nearly the shape of an inverted cup. This shape enables the space within said cone to contain more air than if said lower collar were not recessed. The above-described method of attachment of said plunger-rod to said operating-lever allows said cone J to maintain an upright position in any part of said tub to which it may be shifted, and in which it may be operated by the pivoted devices hereinbefore set forth. Thus the air is prevented from escaping at the sides of said cone when the latter is brought into contact with the clothes, and is compressed so as to force the water and soap-suds through the same without applying an injurious pressure.

Said plunger is made detachable from said lever by cutting a notch, *g′*, (shown in Fig. 3,) in the eye or ring G at a point in the inner circumference of the same, and by making stud f^2 wedge-shaped, so as to pass through said notch. When said eye or ring is turned on said lever so that said notch *g′* registers with said wedge-shaped stud or lug f^2, the said eye or ring and plunger can be readily withdrawn from said lever. Under other circumstances they remain attached thereto. There is preferably another stud on the other side of the said lever opposite to f^1.

Collar I above cone J may be made in one piece with plunger H, or otherwise rigidly and permanently attached thereto.

Eye or ring G is preferably attached to said plunger H by means of two screw-threaded rods or extensions, G′ G′, which are formed in one piece with said eye or ring at opposite points on the circumference thereof, as shown in detail in Fig. 3. Stud f^1 is preferably formed by forcing a metal rod, F′, (shown in detail in Fig. 5,) transversely through sleeve *f* and lever F, until only its ends project on each side. These ends constitute stud f^1 and the stud opposite thereto. Rod F′ also serves to hold sleeve *f* on lever F.

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination of a swinging fulcrum-arm, D, with an operating-lever, and a double-joint or universal-joint connection, substantially as set forth.

2. The combination of plunger H with notched ring G, and wedge-shaped stud f^2 on lever F, substantially as set forth.

3. The combination of a plunger or pounding rod, having a pivoting-ring formed in or near its middle part, with an operating-lever having a sleeve or shield, provided with lugs or studs, between which said pivoting-ring plays, substantially as set forth.

4. The lever F, provided with sleeve *f*, in combination with rod F′, which forms studs on opposite sides of said lever, and also secures said sleeve or shield thereto, substantially as set forth.

5. The eye or ring G, having extensions G′ G′ in one piece therewith, substantially as and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JEREMY TAYLOR.

Witnesses:
O. F. BEAN,
D. D. TENNYSON.