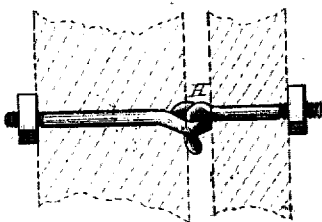
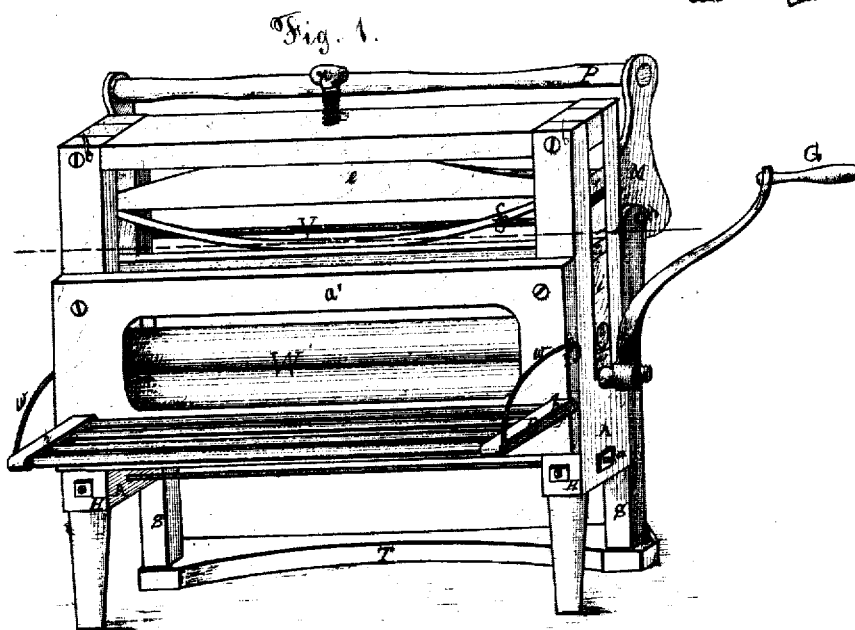
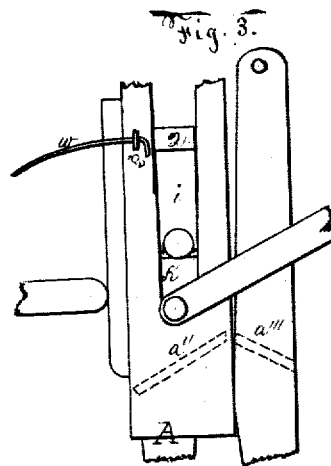


A. O'Neil,

Nringer.

No. 108620

Patented Oct. 25. 1870



Witness:
H. C. Zepherman
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United States Patent Office.

ABIEL O'DELL, OF NAPANEE, CANADA.

Letters Patent No. 108,620. dated October 25, 1870.

IMPROVEMENT IN CLOTHES-WRINGERS.

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

I, ABIEL O'DELL, of Napanee, Ontario, Canada, have invented certain Improvements in Clothes-Wringers, of which the following is a specification.

Description of the Accompanying Drawing.

Figure 1 is a view, in perspective, embodying my invention.

Figure 2 is a plan view of the bolt and staple for adjusting the tub-holder.

Figure 3 is a vertical lateral section below the line *x x*, showing the longitudinal pieces *a'* and *a''*.

Nature and Objects of my Invention.

My invention relates to an improvement in clothes-wringers, which is designed to supersede with a more efficient and economical device those which have hitherto obtained; and

It consists in the peculiar construction of the tub-holder, the combination and arrangement of the springs for increasing the elasticity of the rollers, and in the peculiar construction and arrangement of the clothes-carriage, as also in the method of attaching the tub-holder to the main body of the wringer.

A A are standards provided with suitable vertical slots wherein the springs and rollers have their bearings, and which comprise, in part, the frame of the device, which is strengthened by the longitudinal iron rod *a*, and other obvious construction of the parts of the same, such as the longitudinal pieces *a'* and *a''*, which slide in grooves, as shown.

In order to impart additional strength, and also to simplify the construction of my device, and to render it capable of being easily taken to pieces, I also employ the transverse screw-bolts *b b* at the top of the wringer, which bolts are fastened by nuts on the exterior of the frame, and the bolt and staple *H I* employ for attaching and detaching the tub-holder, as shown in fig. 2.

The said springs, which are guided by slots in the standards, as aforesaid, are two in number, the upper one, *e*, being wooden, and the lower one, *f*, an elliptical steel spring. The former is beveled on top and flat on the lower part thereof.

The wooden spring compresses the steel elliptical spring located immediately beneath the same, and the steel spring, *f*, is thus caused to press upon the wooden bar *Q*, which latter rests upon the axial vertical slides *i*.

Between the upper and lower of said rollers is provided another slide, *K*, which forms a bearing for the upper roller, and rests upon the journal of the lower one.

The bearing of the lower roller is formed by a concavity in the lower part of the slot of said standards. Said rollers are covered with elastic.

The set-screw *n* is employed for regulating the pressure of the rollers upon the clothes.

D is an adjustable carriage, which is hinged to the wringer, and is so constructed that it may be folded up out of the way when not being operated.

It has attached laterally thereto, at either end thereof, stout galvanized wires, *w*, which are curved to conform to the arc of the circle described by the carriage in folding the same.

The said wires are formed into hooks at or near the ends thereof in order that they may be hooked into the staples *g*, located in the standards A, and are designed to hold the said carriage in a horizontal position.

The carriage D is composed of round longitudinal pieces, those nearest the rollers being rigidly attached to the frame of the carriage, but the one on the outside has axial bearings in the transverse pieces *p*, and is of greater diameter than the others, and rotates as the clothes are passed over it, thus preventing friction and the consequent wear of the clothing.

F is the tub-holder, which is composed of the uprights *s s*, which are rigidly attached to the base-piece T, which is rounded out to conform to the shape of the tub against which it is designed to press.

The tub-holder is also strengthened by the longitudinal iron rod V, which is tightened and secured at one end thereof by a nut, as shown.

Each of the upright standards of the tub-holders is slotted transversely in order to admit the cams M, which are hinged thereto, the rod V furnishing the bearings thereof.

The tub-holder is composed of the hinged cams M, the longitudinal piece P, which is tenoned in the latter, and also the longitudinal piece *a'''*, which is fitted into inclined grooves provided in the standards *s s*.

When it is designed to hold the tub rigidly in position the holder is lowered and pressed against the same, which holds it steadfast, and the cams also tend to press the holder against the lower part of the device, and prevent the jarring or moving thereof.

G is a crank for rotating the rollers of the wringer. It is rigidly attached to the shaft of one of the said rollers, but cog-gearing may also be employed as an adjunct in the performance of the intended work.

Claim.

The combination and arrangement of the cams M, the standards *s s*, and the base-piece T of the tub-holder, and the springs *e* and *f*, bars Q, slides *i* and *K*, and rollers W, and the carriage D, wire *w*, and standards A, constructed as shown, and for the purpose described.

A. O'DELL.

Witnesses:

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