G. S. FOOS.
Clothes-Wringers.

No. 220,821. Patented Oct. 21, 1879.

Fig. 1.

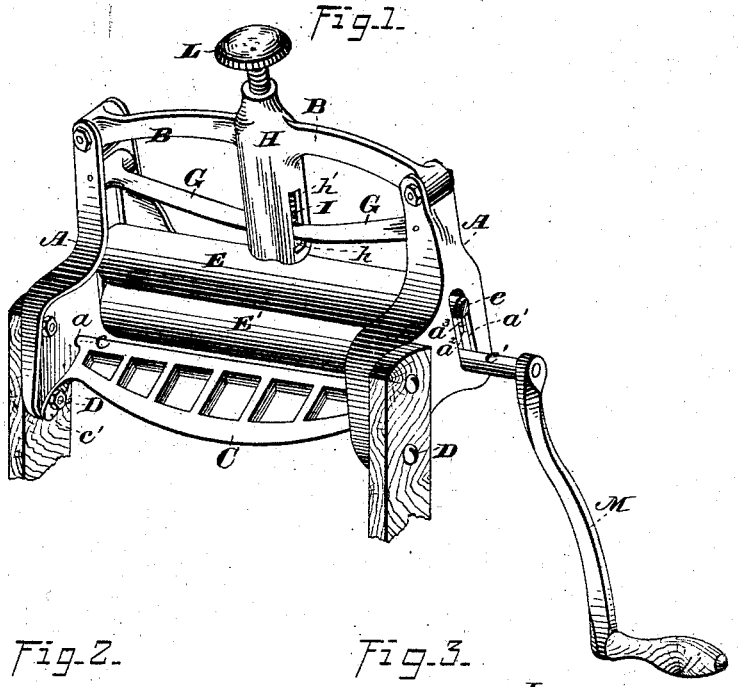


Fig. 2.

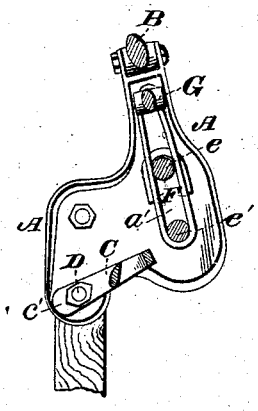
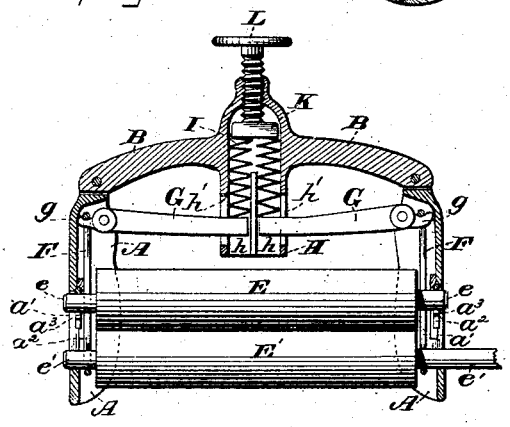


Fig. 3.



WITNESSES
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UNITED STATES PATENT OFFICE.

GUSTAVUS S. FOOS, OF SPRINGFIELD, OHIO.

IMPROVEMENT IN CLOTHES-WRINGERS.

Specification forming part of Letters Patent No. **220,821**, dated October 21, 1879; application filed August 11, 1879.

To all whom it may concern:

Be it known that I, GUSTAVUS S. FOOS, of Springfield, in the county of Clarke, and in the State of Ohio, have invented certain new and useful Improvements in Clothes-Wringers; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a perspective view of my device arranged for use. Fig. 2 is a cross-section of the same upon a line passing transversely through the journals of the rollers, and Fig. 3 is a longitudinal section of the frame upon a line with the axes of the rollers.

Letters of like name and kind refer to like parts in each of the figures.

The design of my invention is to increase the efficiency and render more perfect the operation of clothes-wringers, to which end it consists, principally, in the means employed for giving to the pressure-levers independent variable spring-pressure by the movement of one screw, substantially as and for the purpose hereinafter specified.

It consists, further, in the means employed for holding the lower roller upward against the upper roller with a yielding variable pressure and without interference with or limitation of the relatively independent action of its ends, substantially as and for the purpose hereinafter shown.

In the annexed drawings, A and A represent the side plates of the frame of my wringer, which have the general form shown in Figs. 1 and 2, have inward-projecting flanges upon their front and rear edges, and are connected together at their upper ends by means of an arched brace, B, and at their lower ends by an open-work brace, C, which, at each rear inner corner, is provided with a stud or pin, *c*, that fits into a corresponding opening, *a*, in the contiguous side piece, and at each outer corner has a lug, *c'*, that extends forward and downward and receives a bolt, D, which passes through the same and through said side piece, said parts forming a strong and durable frame. Within the vertical portion of each side piece, A, below its center, is provided a vertically-elongated opening, *a'*, which receives the journals *e* and *e'* of two pressure-rollers, E and E', of usual form, the length of each of said openings being such as to enable said rollers to be separated sufficiently to permit of the passage between of any usual article of clothing.

The journals *e* of the upper roller have bearings within the upper ends of the openings *a'*, the thickness of each side piece, A, being increased at such points, so as to furnish greater breadth of bearing for said journals.

The journals *e'* of the lower roller, E', rest within the lower ends of two links, F, which from thence pass upward around the journals *e* of the upper roller, E, and have their opposite ends engaged with the short outer ends, *g*, of two levers, G, which levers are pivoted within the upper portions of the side pieces, A, and extend horizontally inward until their inner ends nearly meet.

As thus arranged, by moving the inner ends of the levers G upward or downward, the roller E' will be, respectively, lowered or raised, and any desired amount of pressure of said lower roller upon the upper roller may be produced by downward pressure upon the inner ends of said levers.

In order that a yielding downward pressure may be produced upon the inner ends of the levers G, and that such pressure may be varied at will, and each lever be free to move independent of the motions of the other lever, the following-described means are employed, viz: At the longitudinal center of the brace B is provided a housing, H, which extends from a point near the upper side of the roller E upward a short distance above said brace, and interiorly is divided from its lower end nearly to its upper end into two compartments, *h* and *h*, that have each substantially the form of a cylinder.

A vertical slot, *h'*, at each side of the housing H, near its lower end, admits the inner end of the contiguous lever G into the compartment *h* at such side of said housing, and above the end of each lever, within each compartment, is placed a spiral spring, I.

The space within the upper portion of the housing H is not divided, and within said space is placed a block, K, which loosely fills the same horizontally and rests upon the upper ends of the springs. A set-screw, L, passing downward through a threaded opening pro-

vided in the upper end of said housing, bears upon the center of said block, and affords a means whereby the latter may be pressed downward and said springs compressed and caused to exert more pressure upon said levers.

By means of the construction shown the lower roller, E′, may be held against the upper roller, E, with any desired pressure, while each end of the former is free to move away from the latter without interference with or effect upon the opposite end of the same.

A crank, M, attached to the projecting end of the journal *e′* of the lower roller, E′, enables the same to be rotated, and the wringer to be used in the ordinary manner.

Having thus fully set forth the nature and merits of my invention, what I claim as new is—

1. In combination with the pivoted levers G, the housing H, having its lower portion divided into two parallel compartments, *h*, the springs I, arranged within said compartments and having their lower ends supported by the ends of said levers, the block K, contained within the upper undivided portion of said housing, and the screw L, passing through a threaded opening and arranged to move said block vertically, substantially as and for the purpose specified.

2. As a means for giving to the ends of the roller E′ independent and adjustable upward pressure against the roller E, and in combination therewith, the links F, embracing the journals *e′* of said roller E′, the pivoted levers G, having their ends engaged with said links, the springs I, bearing upon the inner ends of said levers, the block K, resting upon each of said springs, and the screw L, arranged to bear upon and move said block vertically, substantially as and for the purpose shown.

In testimony that I claim the foregoing I have hereunto set my hand this 30th day of July, 1879.

GUSTAVUS S. FOOS.

Witnesses:
A. P. LINN COCHRAN,
ROBT. C. RODGERS.