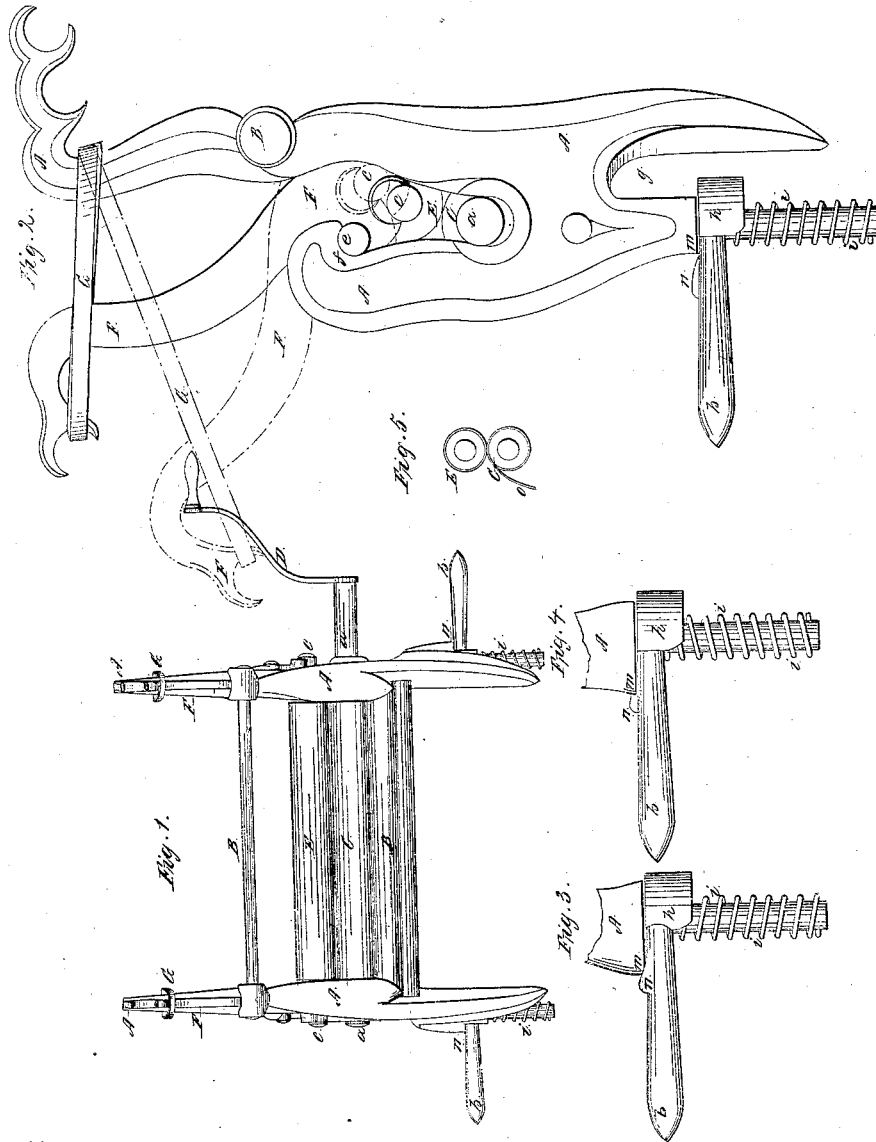


S. W. & J. F. Palmer,

Wringer,

N^o 45,071,

Patented Nov. 15, 1864.



Witnesses:

*Jas. D. Hutton
A. Moore*

Inventor:

*S. W. & J. F. Palmer
By atty A. B. Houghton*

UNITED STATES PATENT OFFICE.

S. W. PALMER AND J. F. PALMER, OF AUBURN, NEW YORK.

CLOTHES WRINGER AND MANGLE.

Specification of Letters Patent No. 45,071, dated November 15, 1864.

To all whom it may concern:

Be it known that we, SIDNEY W. PALMER and J. F. PALMER, of Auburn, in the county of Cayuga and State of New York, have invented certain new and useful Improvements in Combined Clothes Wringers and Mangles, and that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 represents a front elevation of the machine. Fig. 2, represents, on an enlarged scale, an end elevation and showing in red lines the position of the parts, when the upper roll has been raised by a thicker article or thing passing through between it and the lower roll. Fig. 3, represents a view, from one side, of the cam, spring, and lever, for securing the machine to a tub, or table. Fig. 4, represents a view from the other side thereof—and Fig. 5, represents a section through the rolls.

Similar letters of reference where they occur in the separate figures denote like parts of the machine in all the drawings.

The nature of our invention consists first, in the arrangement of the levers, springs, and rolls, with regard to the frame, by which means, the machine is ever ready to be used with a thinner or thicker article without adjustment, and without materially increasing the pressure on the thick over the thin article, as the leverage is made to decrease, as the tension of the springs or rubber bands increases, and vice versa, thus making one compensate for the other, as the upper roll rises or falls, by the passing through of a thicker, or a thinner article. And our invention further consists, in the combination of the spring, cam, and catch, for holding the machine to a tub, table, stand, or other support—said spring acting to hold the cam both out of, and in action, as the case may be.

To enable others skilled in the art to make and use our invention, we will proceed to describe the same with reference to the drawings.

A, A, represent two upright pieces, united by the horizontal pieces B, B, which constitute the frame of the machine, and are best made of metal. In this frame, the journals *a*, of the lower roll C, rest in suitable bearings in which they may turn, and to one of these journals, a crank D, may be united, for the purpose of operating the machine. The

roll C, as well as the upper roll E, may be of metal, or of wood, or of parts of each, and if covered, they may be covered with india rubber, felt, linen, or other material, and in the usual way.

The upper roll E is supported by its journals *e*, in the levers F, which levers are in turn supported by their trunnions *e*, in the frame, at the points *f*, or thereabouts, and tops of these levers, are held to the tops of the frame by india rubber bands G, (for convenience and cheapness), but coiled springs may be used instead of the rubber bands.

When a thin article is passed through between the rolls, they will maintain substantially the position shown by the black lines Fig. 2. But when a thick article passes through the upper roll must rise, and in doing so the rubber band must be distended. Now this without other provision would make the tension of the band excessive, and cause the rolls to press so hard, as to break, injure, or destroy themselves, or cause so much friction as to make the machine incapable of being worked. But we have arranged a compensation for this tension on the bands or springs, viz: by the manner of hanging the upper roll E, in the levers F, and hanging said levers to the frame, as at *e*, *f*, so that, the leverage shall decrease as the tension increases, and vice versa, and by this means we get an uniform (or practically so) pressure upon all articles passed through, whether it be a thin one, as a pocket handkerchief, or a towel, or a thick article, such as a blanket or bedspread, and this too, without any previous adjustment, or alteration of the machine.

The lower part of the frame may be forked as seen at *g*, so as to straddle the rim of a wash tub, or a table, stand, or other support, and to one limb thereof there may be attached a cam *h*, having a handle *b*, thereon, and a spring *i*, connected, so that when the cam is turned around out of action a projection or shoulder *n* thereon will take against a similar projection or shoulder *m*, on the limb, and thus hold said cam out of action. But when the machine is to be fastened to a tub, table, or other thing, it is placed over the point to which it is to be attached, and the handle *b* slightly pressed downward, to release the shoulders *n*, *m*, the spring *i*, then expanding throws the cam against the tub, table, or other support, and tightly holds it there. The springs *i*, there-

fore perform two functions—they hold the cam when out of action, so that the machine may be readily placed where it is to be fastened, and when released they bring the cams against the tub, flange or other thing to which the machine is to be attached, and hold them there.

It is preferable in changing this machine from a wringer to a mangle, to change rollers also—as in a mangle the articles put through it are often folded until quite thick such as table cloths, sheets, &c., and thus folded, might not readily enter between the rolls, and in such case the under roll C, may have a flap *o*, upon it, under which the article may be placed, and which will perforce draw the article between the rolls. The pieces A, A, may have fitted to them a detachable jaw, with a thumb screw, for attaching the machine to a table when used as a mangle.

Having thus fully described the nature, object, and purpose of our invention, what we claim therein as new and desire to secure by Letters Patent is,

1. The arrangement of the levers F, for carrying the upper or yielding roll, and their connection with the frame, and non-yielding roll, as and for the purpose, described.

2. We also claim in combination with the wringer and mangle, the cams *h*, levers *b*, springs *i*, and projections *n*, *m*, for making a clamping device, for holding the machine to a tub, table, stand, or other support, substantially as described.

S. W. PALMER.
J. F. PALMER.

Witnesses:

HORACE F. COOK,
HENRY HALL.