L. STERNBERGER.

WRINGER.

No. 189,278. Patented April 3, 1877.

Fig. 1.

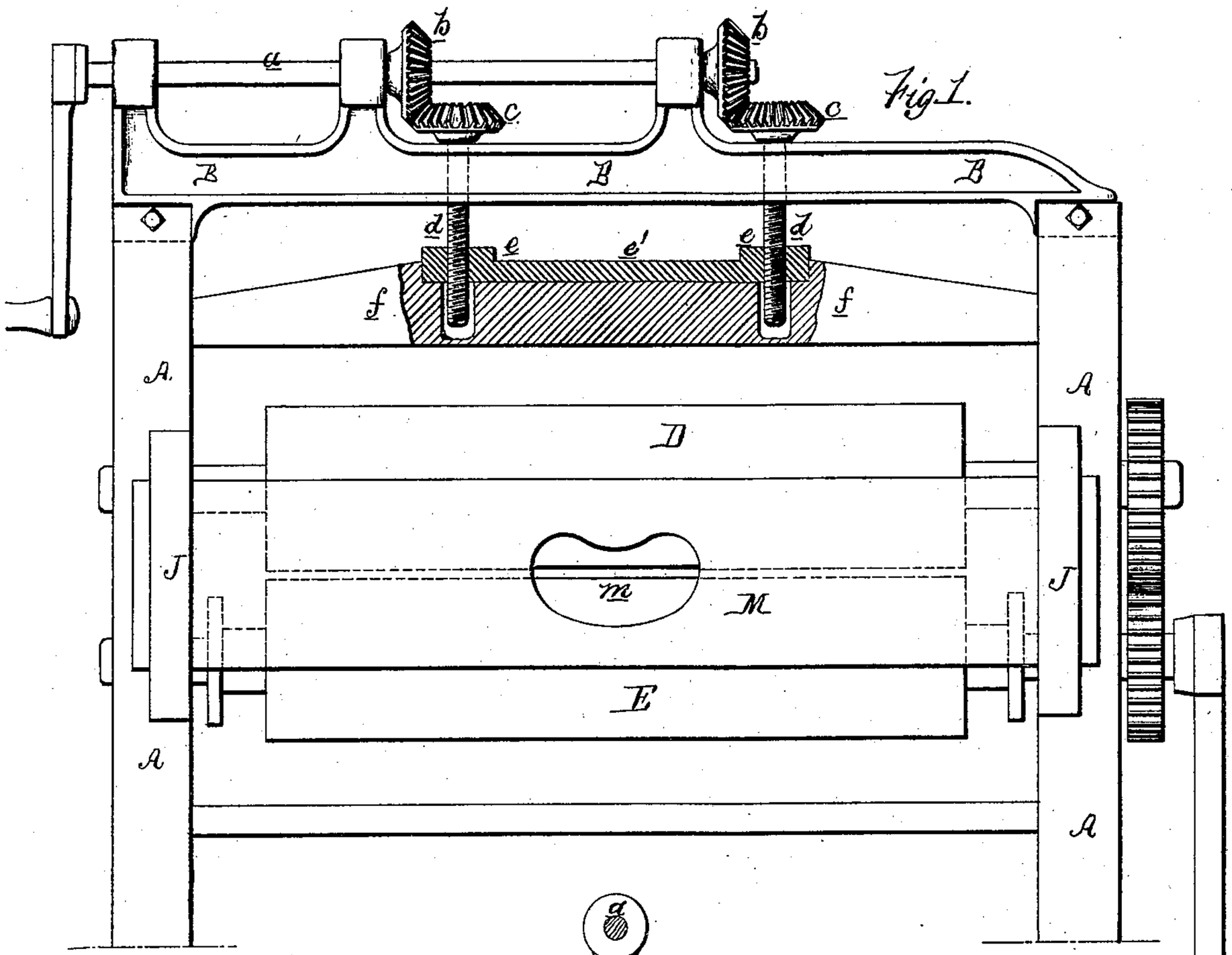


Fig. 3.

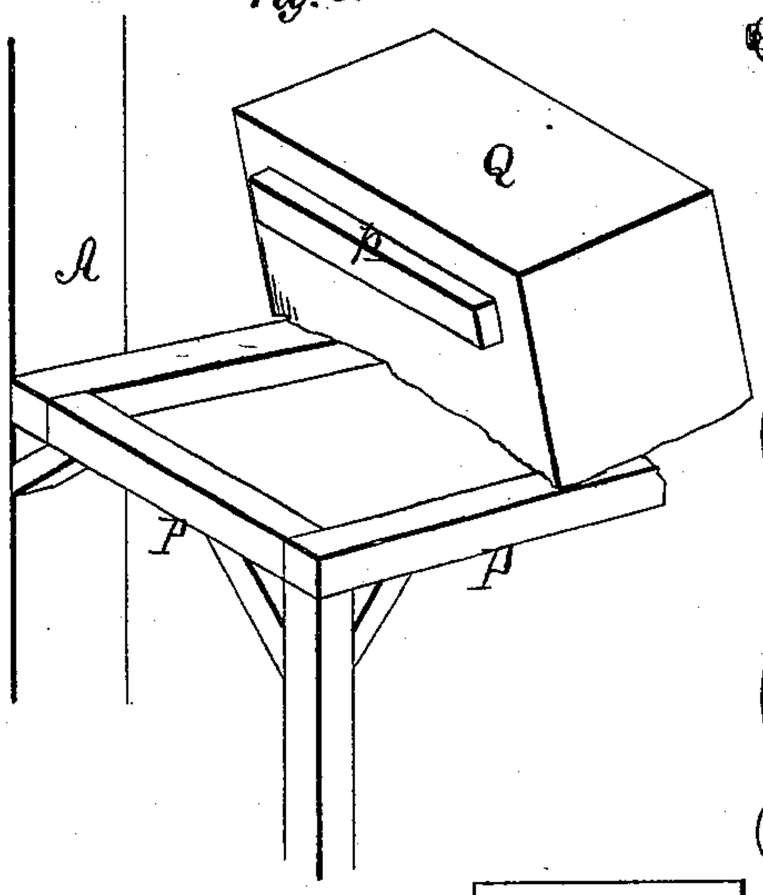


Fig. 2.

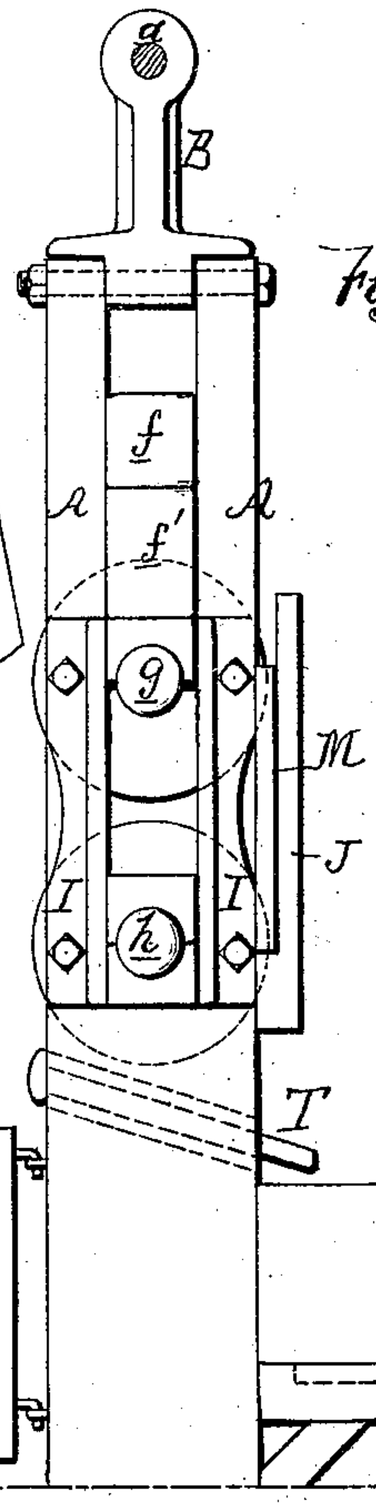
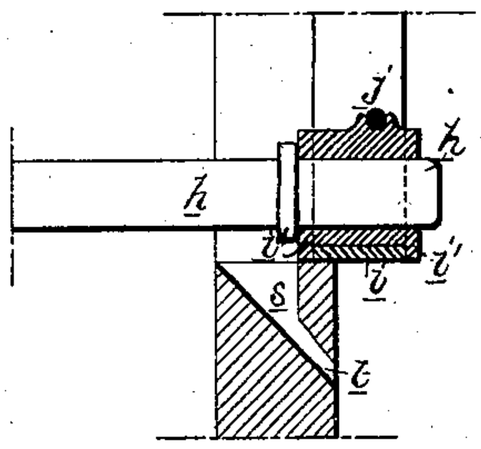


Fig. 4.



Witnesses.
Hermann Moerner
Henry Howson Jr

Leopold Sternberger
by his Attorney
Howson and Son

UNITED STATES PATENT OFFICE.

LEOPOLD STERNBERGER, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN WRINGERS.

Specification forming part of Letters Patent No. **189,278**, dated April 3, 1877; application filed August 31, 1876.

To all whom it may concern:

Be it known that I, LEOPOLD STERNBERGER, of Philadelphia, Pennsylvania, have invented Improvements in Wringing-Machines, of which the following is a specification:

My invention relates to certain improvements in machines for wringing textile fabrics, the object of my improvements being to so construct the machine that an even and regular pressure of the adjusting-screws upon both bearings of the upper roll is insured, the movement of the bearing of the lower roll prevented, and the danger of soiling the fabric with oil from the bearings obviated. This object I attain in the manner which I will now proceed to describe, reference being had to the accompanying drawing, in which—

Figure 1 is a front view of my improved wringing-machine; Fig. 2, an end view of the same; and Figs. 3 and 4, detached views of parts of the machine.

The frame of the machine consists of two slotted end posts, A A, connected together at the top by a cross-bar, B, on which are formed bearings for a longitudinal shaft, *a*, carrying two bevel-wheels, *b b*, which gear into similar wheels *c c*, secured to the upper ends of two vertical screw-shafts, *d d*, the latter having their bearings in the cross-bar B, their lower ends being adapted to nuts *e e*, forming, in the present instance, part of a plate, *e'*, secured to the bar *f*, the opposite ends of which project into the slots in the side posts A, and bear upon rubber blocks *f'*, resting upon the journal and boxes *g* of the upper roll D, both these boxes and the boxes and journals *h* of the lower roll E being contained between guide-plates I I, secured to each of the side bars A.

By the use of the vertical shafts, so geared together that they must turn simultaneously, a uniform pressure on both journal-boxes is insured.

It will be evident that different styles of gearing may be adopted for the simultaneous operation of the screws.

The guide-plates I are connected together at the bottom by strips *i*, which preferably form part of the said guides, and on each of these strips is adapted the lower half of each journal-box *h* of the lower roll, lugs *i'* on the said journal-boxes embracing the said strips, and preventing end motion of the bearing or journal. The upper half of each journal-box is retained in position by a transverse pin, *j*, as shown in Fig. 4.

To guides J J, secured to the opposite side bars A of the machine, are adapted the opposite ends of a plate or board, M, and in the latter is a central opening, *m*, through which the articles of wearing-apparel are drawn by the rolls. This board M, with its confined opening, regulates and guides the feed of the fabric to the rolls, and prevents the liquid expressed from the fabric from splashing upon the operator—an objection to which all wringers with exposed rolls are liable.

The board with the central opening is of especial importance when the machine is used for expressing superfluous starch from articles of wearing-apparel. It is important that this board M should be adapted to the guides, so as to be readily removed and replaced, as the starch which, owing to the contracted opening *m*, splashes upon the inside of the board, hardens upon the same, and must be frequently removed, to effect which the removal of the board is necessary.

In front of the machine, and extending from one of the side bars A to the other, is an open frame-work, P, on which rests a box or tank, Q, the latter being held in position by its strips *p*, which fit within the edges of the frame, Fig. 3.

To the rear edges of the posts A is hung, by means of suitable hooks, which permit its easy removal, a box, S, which receives the articles as they pass from the rolls; and immediately beneath the lower roll is an inclined strip, T, which serves to convey the expressed water or starch back into the tub Q.

In each of the posts A, adjacent to the lower journal-box *h*, is formed a recess, *s*, Fig. 4, communicating at the bottom with a passage, *t*, which extends to the outer edge of the post, so that any oil which may drip from the journal may be conveyed by the passage *t* away from the inside of the frame and the ends of the rolls, the soiling of the fabric in its passage through the same being thus prevented.

The above machine may be applied to other uses than the wringing of water from gar-

ments—for instance, it may, as before remarked, be used in laundries for expressing the surplus starch from textile fabrics, or in dye-houses for operating upon hanks of yarn, the tub Q in this case containing the dyeing liquid. In either of these cases the plate M and strip T will be especially advantageous.

I claim as my invention—

1. The combination of the depressing-strip *f* of a wringing-machine with the screw-shafts *d d*, geared together so as to be operated simultaneously, substantially as set forth.

2. The combination of the rolls of a wringing-machine with the plate M, having a contracted opening, *m*, and so adapted to guides J J as to be readily removed and replaced, as set forth.

3. The combination of the lower journal and box *h* and its lugs *i' i'* with the plates I I, bottom plate *i*, and transverse pin *j*, as set forth.

4. The combination of the lower journal-box of a wringing-machine with a passage for conveying the drippings of the lubricant away from the inner side of the post in which the bearing is situated, as specified.

5. The combination of the open frame P of a wringing or starching machine with the tub Q and its strips *p*, as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

LEOPOLD STERNBERGER.

Witnesses:

HUBERT HOWSON,

HENRY HOWSON, Jr.