# G. E. GAULT & A. W. WINALL.

## Clothes-Wringers.

No. 134,658. Patented Jan. 7, 1873.

*Fig. 1.*

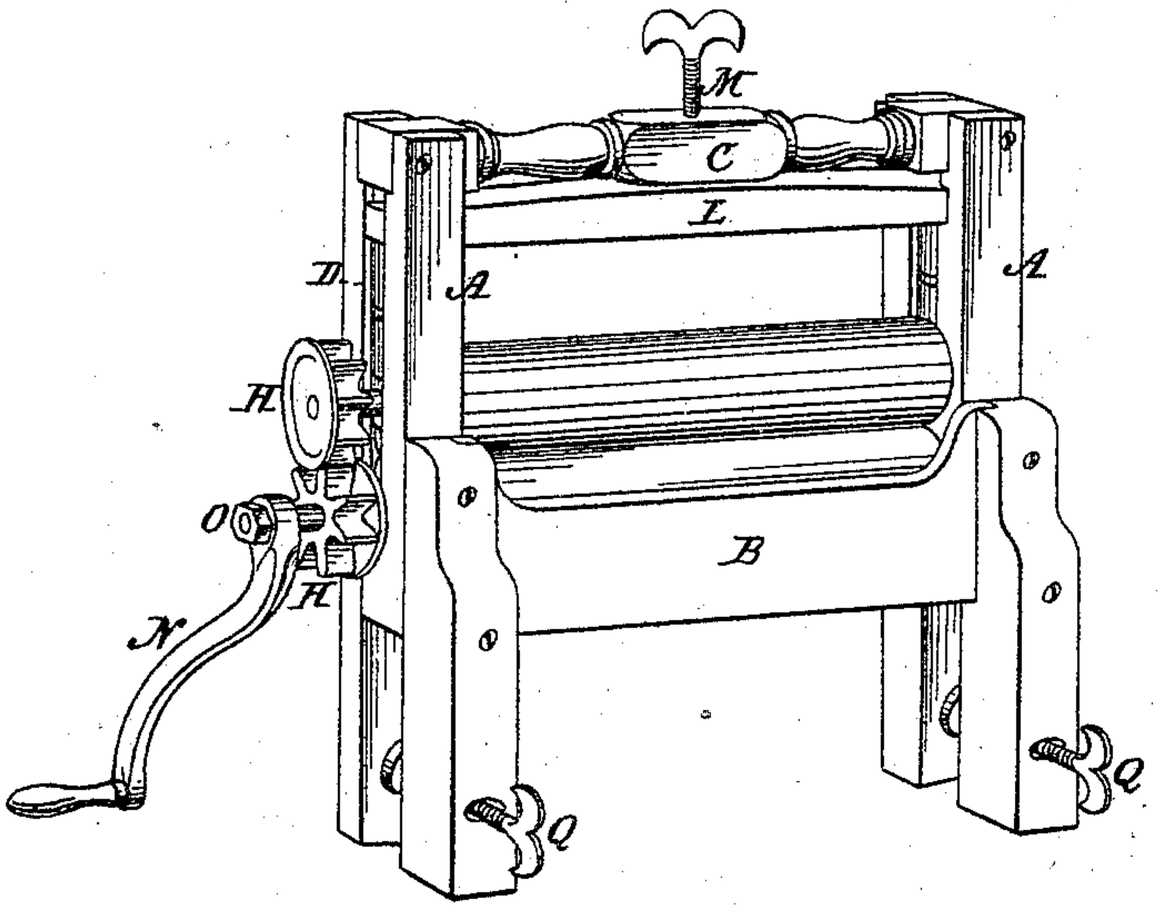



*Fig. 2.*

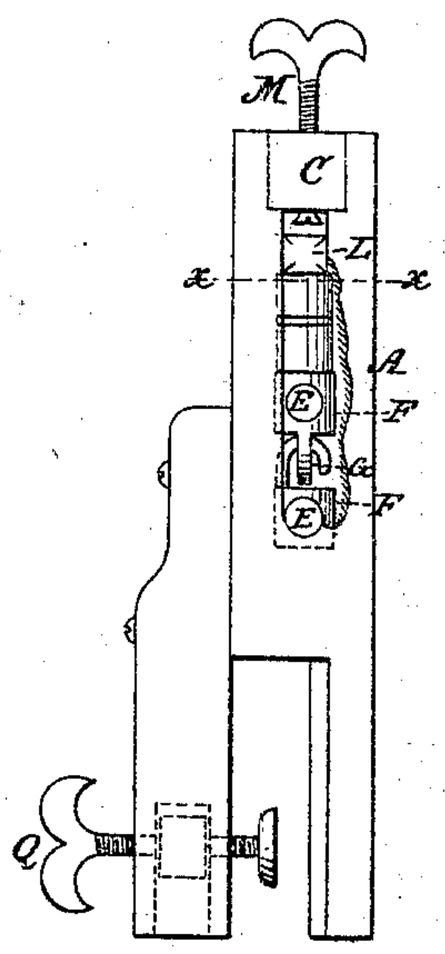



*Fig. 3.*

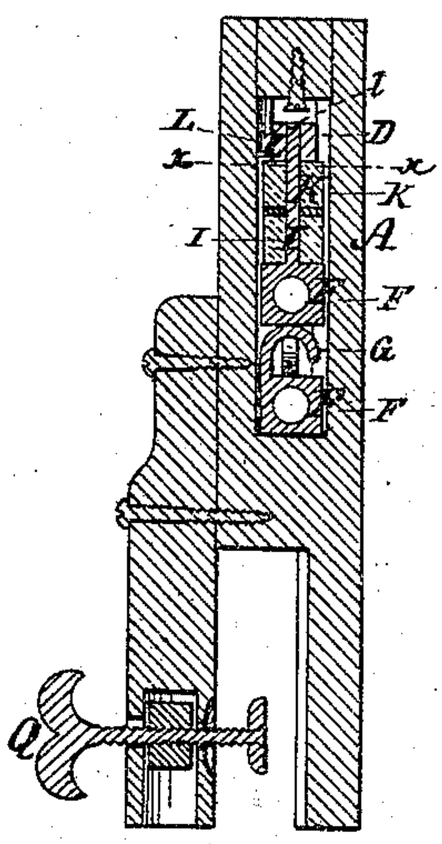



*Fig. 4.*

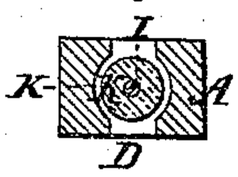



*Fig. 5.*

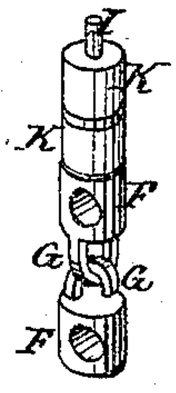



*Fig. 6.*

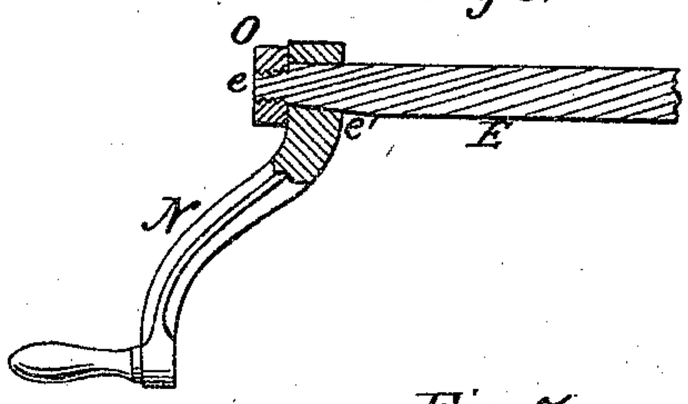
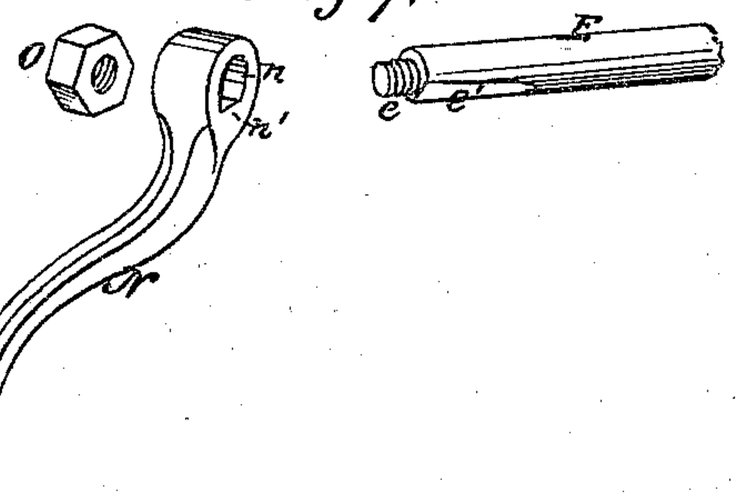



*Fig. 7.*




*Witnesses.*

Edmund Masson.

John R. Young

*Inventors*

Geo. E. Gault & Alex. W. Winall,

by Prindle & Co., their Attys

# UNITED STATES PATENT OFFICE.

GEORGE E. GAULT AND ALEXANDER W. WINALL, OF CINCINNATI, OHIO, ASSIGNORS TO "THE QUEEN CITY WRINGER COMPANY," OF SAME PLACE.

## IMPROVEMENT IN CLOTHES-WRINGERS.

Specification forming part of Letters Patent No. **134,658**, dated January 7, 1873.

*To all whom it may concern:*

Be it known that we, GEORGE E. GAULT and ALEXANDER W. WINALL, of Cincinnati, in the county of Hamilton and in the State of Ohio, have invented certain new and useful Improvements in Clothes-Wringers; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 is a perspective view of our improved device; Fig. 2 is an elevation of one end of the same, with a portion of the post or frame broken away so as to show the arrangement of the journal-boxes and compression-springs; Fig. 3 is a vertical section of said post upon a central line extending from front to rear; Fig. 4 is a horizontal section of the same on line *x x* of Fig. 2; Fig. 5 is a perspective view of the journal-boxes and springs detached; Fig. 6 is a central longitudinal section of one end of the driving-shaft with the crank attached; and Fig. 7 is a perspective view of said parts detached.

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

The object of our invention is to increase the efficiency and durability of wringing-machines; and it consists, principally, in the employment of journal-boxes having a circular form, in combination with frame-posts provided with corresponding vertical openings for containing said boxes, substantially as and for the purpose hereinafter specified. It consists, further, in a stud or pin secured to and extending upward from the upper journal-box, which passes through the rubber springs and into or through the end of the double or longitudinal bar-spring, substantially as and for the purpose hereinafter shown. It consists, further, in the employment of a link secured upon and forming a part of each journal-box, and combined with the corresponding part of the opposite box, substantially as and for the purpose hereinafter set forth. It consists, further, in the means employed for securing the crank to or in position upon the driving-shaft, substantially as and for the purpose hereinafter shown and described. It consists, finally, in the device as a whole, when its several parts are constructed and combined substantially as and for the purpose hereinafter specified.

In the annexed drawing, A and A represent the frame-posts, bifurcated at their lower ends in the usual manner, and connected together by means of a slat, B, which extends horizontally between their vertical centers, and a bar, C, that extends between their upper ends, and has its ends contained within suitable recesses or sockets formed within the same. Extending downward from the upper end of each post A to a point near its longitudinal center is a slot, D, which passes transversely through the same upon a central line that coincides with the transverse center of the opposite post, and has a width slightly greater than the diameters of the roller-shaft journals E which are to be contained within the same. At the horizontal center of each post the slot D is enlarged horizontally, upon a circular line, and within said enlargement are placed the journal-boxes F, which are constructed of metal in the form of a cylinder, and have such horizontal dimensions as to cause them to loosely fill said enlargement. Vertically the boxes F have such dimensions as will enable them to receive the journals E of the roller-shafts, and upon their contiguous ends are formed half-links G, which, when locked together, as seen in Fig. 5, limit the outward motion of said boxes, and prevent the teeth of the driving-gear H from being thrown out of engagement. For convenience of adjustment, one link of each pair is made open at one side, so as to enable the opposite link to be inserted within or removed from the same when desired. From the upper end of each upper box F a central stud or pin, I, extends vertically upward to a point near the lower side of the cross-bar C, and serves as a guide and support for the rubber springs, K which, being provided with suitable central openings, are placed upon and around said stud. Beneath the cross-bar C and between the outer sides of the posts A is placed a longitudinal or bar spring, L, (constructed, preferably, of wood,) the center of which is slightly elevated so as to bear against the corresponding portion of the lower side of said cross-bar, while its ends are provided with suitable openings *l*, which correspond in size and position to the like

features of the studs I, and enable said ends to pass over the latter and rest upon the rubber springs K. A screw, M, passing downward through the longitudinal center of the cross-bar C, with its lower end bearing upon the corresponding portion of the spring-bar L, enables the pressure of the latter upon the rubber boxes to be adjusted in the usual manner. The crank N is fitted to or upon the projecting end of the driving-shaft journal E, and is confined thereon in longitudinal position by means of a nut, O, which screws upon the reduced threaded end *e* of said shaft. In order that the crank may be more securely attached to the shaft and prevented from rotating thereon, when subjected to an unusual strain, one side of the latter is flattened, and said flattened portion *e'* inclined, longitudinally, from the end of said shaft inward and away from its transverse center. Within one side of the opening *n* of the crank-hub is provided an enlargement, *n'*, which corresponds in size and inclination to the like features of the flattened portion *e'* of the shaft, so that when said parts are combined the inward pressure of the nut O will, by moving said enlargement upon or over said inclined portion, bind said crank firmly in place upon its shaft, and render impracticable any accidental motion or displacement. A dripping-board and the usual clamping-screws Q complete the device, the operation of which will be readily understood.

The advantages possessed by our construction of parts are as follows: First, by reason of their peculiar shape the journal-boxes and their bearings within the posts are more easily constructed, and are stronger and far less liable to get out of repair than those commonly used; second, by means of the stud which extends from the upper journal-boxes through the rubber and bar springs the relative positions of said parts are rendered more certain than would otherwise be possible; third, by means of the links employed for connecting the journal-boxes all annoyance is avoided from such a separation of the rollers as to disengage the teeth of the driving-gear; fourth, the attachment of the crank upon the driving-shaft is so secure as to render impracticable any accidental loosening or displacement of the same.

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

1. The journal-boxes F having a circular form, in combination with the post A provided with the correspondingly-shaped vertical slots or openings, substantially as and for the purpose specified.

2. In combination with the boxes F and springs K and L, the studs or pins I secured upon and extending upward from said boxes, substantially as and for the purpose shown.

3. In combination with the journal-boxes of a wringer, suitable links for connecting together and limiting the relative motion of the same, substantially as and for the purpose set forth.

4. In combination with the roller-shaft E provided with the flattened inclined portion *e'*, the threaded end *e*, and the nut O, the crank N provided within its hub with the opening *n* and enlargement *n'*, substantially as and for the purpose shown and described.

5. The hereinbefore-described device as a whole, when its several parts are constructed and combined to operate substantially as and for the purpose specified.

In testimony that we claim the foregoing we have hereunto set our hands this 23d day of December, 1872.

GEO. E. GAULT,
ALEX. W. WINALL.

Witnesses:
J. W. BREWSTER,
W. J. FITZGERALD.