G. S. PRINDLE.

Clothes-Wringers.

No. 135,585. Patented Feb. 4, 1873.

Fig. 1.

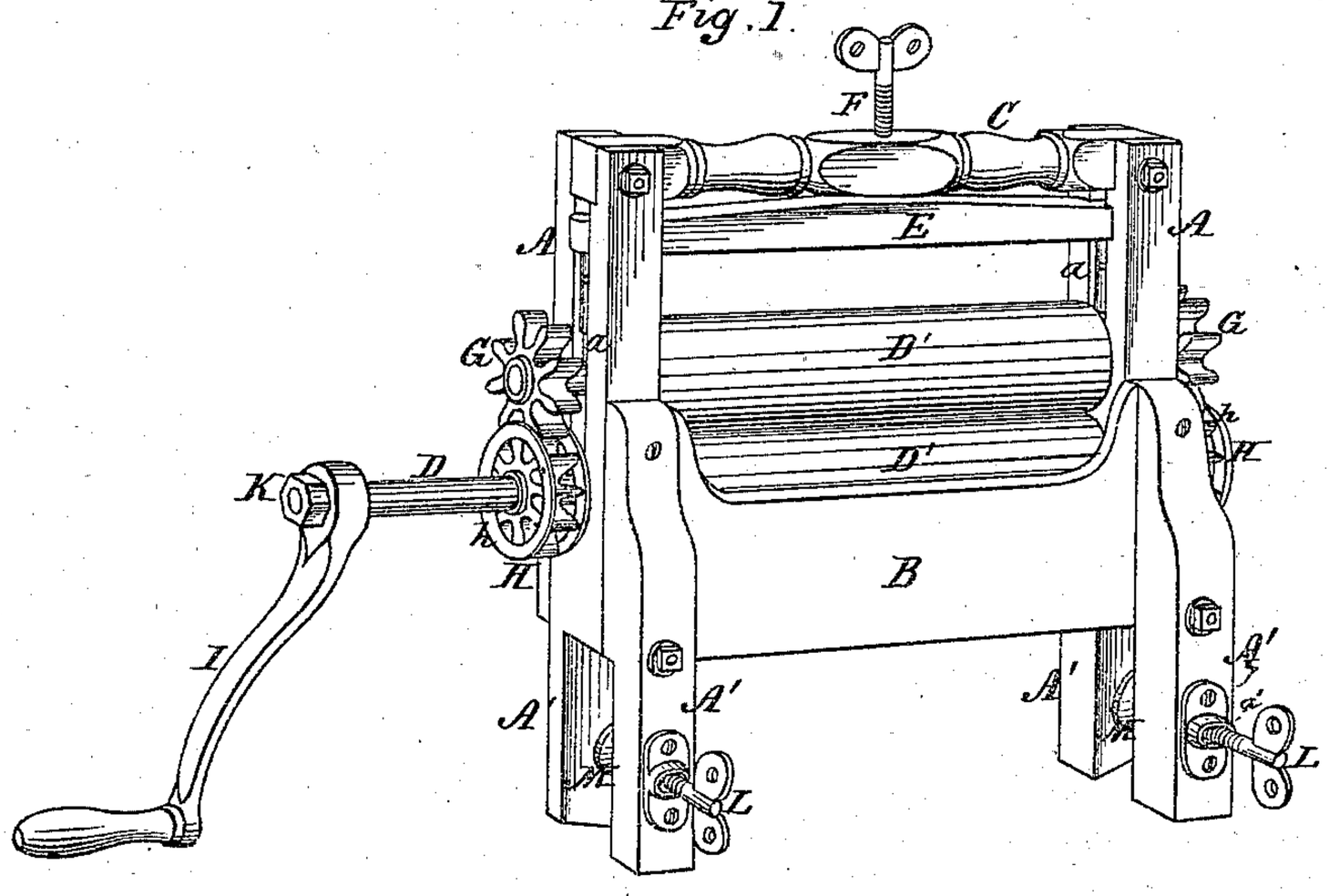


Fig. 2.

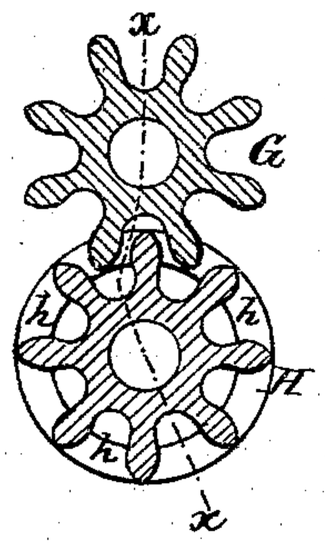


Fig. 3.

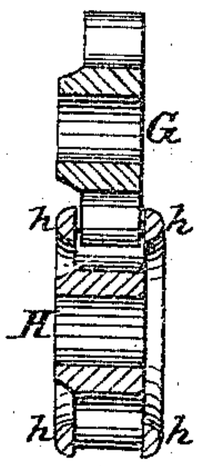


Fig. 4.

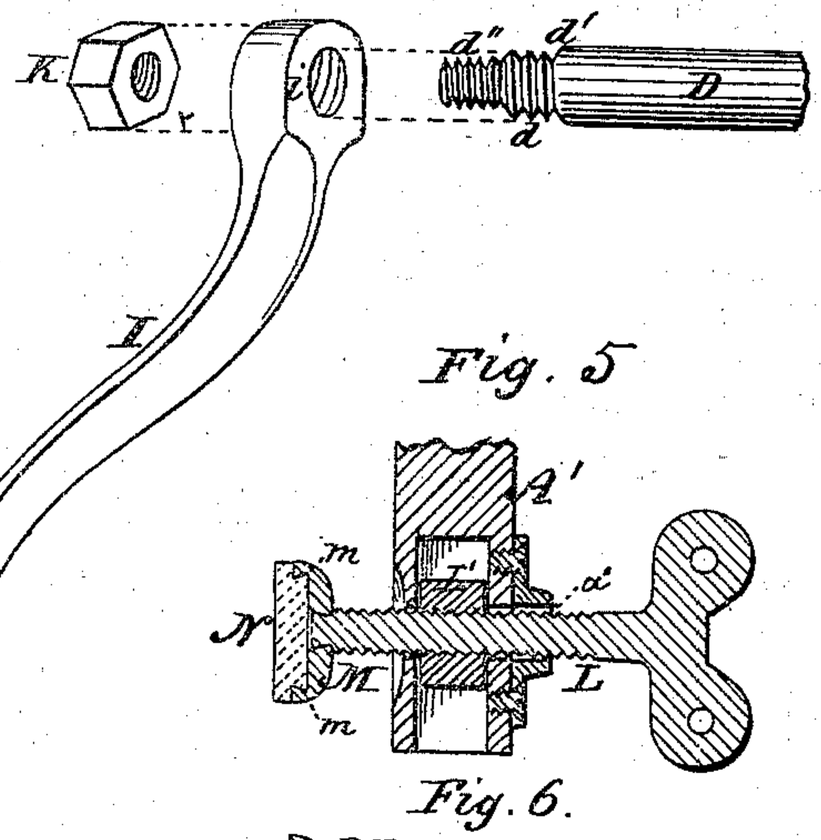
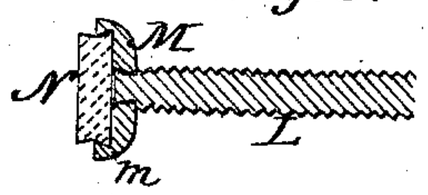


Fig. 5

Fig. 6.



Witnesses.

Edmund Masson

John R. Young

Inventor.

George S. Prindle

UNITED STATES PATENT OFFICE.

GEORGE S. PRINDLE, OF WASHINGTON, DISTRICT OF COLUMBIA, ASSIGNOR TO THE QUEEN CITY WRINGER COMPANY, OF CINCINNATI, OHIO.

IMPROVEMENT IN CLOTHES-WRINGERS.

Specification forming part of Letters Patent No. **135,585**, dated February 4, 1873.

To all whom it may concern:

Be it known that I, GEORGE S. PRINDLE, of Washington, in the county of Washington and in District of Columbia, 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 a wringer containing my improvements. Fig. 2 is a sectional view of the driving-gear upon a central line at a right angle to the roller-shafts. Fig. 3 is a like view of said gear upon line *x x* of Fig. 2. Fig. 4 is a perspective view of the end of the driving-shaft, the crank, and the locking-nut; and Figs. 5 and 6 are sectional views of the clamping-screws, showing two forms of button-pads.

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

The object of my invention is to lessen the cost and increase the efficiency of clothes-wringers; and it consists principally in the construction and combination of the driving-gear, substantially as and for the purpose hereinafter specified. It consists, further, in the means employed for locking the crank in position upon the driving-shaft, substantially as and for the purpose hereinafter shown. It consists, finally, in the employment of an elastic pad upon or within the pivoted button of the clamping-screw, substantially as and for the purpose hereinafter set forth.

In the annexed drawing, A and A represent two posts, divided at their lower ends, and connected together by means of a cross-bar, B, which extends horizontally between the same immediately below their longitudinal centers, and a second bar, C, that extends between and is connected to their upper ends, the whole forming the frame of the machine. From the lower side of the bar C downward to about its longitudinal center each post A is provided with a slot, *a*, which, in connection with the slot of the opposite post, receives and contains the boxes and journaled ends of the roller-shafts D. Upon or around the shafts D, between the posts, are placed rubber rollers D′ of usual form, which rollers are pressed together by means of a bar-spring, E, that rests upon and extends between the upper journal-boxes immediately beneath the cross-bar C. A set-screw, F, passing downward through the center of said bar C, bears against the corresponding portion of said spring and furnishes a means whereby the tension of the latter can be increased at will. Upon the projecting ends of the roller-shafts D are secured interlocking gear-wheels G and H, the upper of which, G, is of usual construction, while the lower gear H is provided upon each end with a flange, *h*, which extends radially outward to the periphery of said gear. The space between the flanges *h* being but slightly greater than the length of the upper gear G, said flanges act as guides for controlling the longitudinal position of the upper roller, and effectually prevent the ends of the latter from chafing against the posts. Although, as shown in the drawing, two pairs of said gear-wheels are employed, one pair only is required in order to insure the perfect operation of the rollers. Near its outer end the lower or driving shaft D is reduced somewhat in size, and upon such reduced portion is provided a screw-thread, *d*, which corresponds to a like thread formed within an opening, *i*, that passes through the hub of the crank I. When screwed upon said shaft the inner face of the crank-hub bears against a shoulder, *d′*, which terminates the threaded portion *d* and prevents further motion of said crank in a forward direction, the same being the usual manner of connecting said parts. In order to lock the crank upon the driving-shaft and prevent it from becoming accidentally loosened when turned backward the threaded end of said shaft is usually made of sufficient length to permit of the application of a nut outside of said crank, said nut being screwed hard against the latter, and acting as a jam-nut. It has been found, however, that the friction between the jam-nut and crank-hub was such that whenever said crank was subjected to a heavy backward strain it would readily unscrew from its shaft and move with it said nut, said parts moving the same distance longitudinally upon said shaft at each revolution. To obviate this difficulty I provide for the locking-nut K a thread, *d″*, having less "pitch" than that upon which the crank-hub is screwed,

by which means the unscrewing of said nut by said crank is rendered impossible, as the longitudinal movement of the latter upon its shaft for each revolution around the same so much exceeds that of the former that, when once firmly pressed together, any backward motion of said crank could only be effected by stripping the thread from said nut or the shaft. When in use the machine is locked to or upon the tub by means of a set-screw, L, which passes inward through a suitable horizontal slot, *a'*, formed in one of the legs A', and through a threaded opening provided within a round metal bar, L', which bar is contained within a corresponding vertical opening that extends upward from the lower end of said leg to a point above the intersecting slot *a'*. The slot *a'* is elongated laterally at its end so as to permit the screw L to conform in direction to the shape of the tub or other utensil to which the wringer is attached. A button, M, pivoted upon the inner end of each screw L and bearing against the outer side of the tub, prevents, in a great degree, mutilation of the latter; but when used by careless persons it is often the case that by giving to said screws an undue pressure the buttons will be embedded within the wood and injure the appearance, if not the usefulness, of said tub. To obviate this difficulty and render effectual a less pressure of the screws I secure upon or within the face of each pivoted button a pad, N, composed of rubber or other suitable elastic material, which pad has a sufficient size and thickness to prevent said button from coming into contact with the tub.

Any desired means may be employed for attaching the pad to the button; but it is believed that the most simple and effective way is, as shown in Figs. 5 and 6, to provide within the face of said button a recess, *m*, made larger, somewhat, in diameter at its rear side than at its front, and to give to the pad a corresponding shape and a slightly-larger size, so that when placed within said recess the outward spring of said pad will cause it to be held therein in the same manner as a dovetail-tenon is held within its mortise.

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

1. In combination with the roller-shafts of a wringing-machine, a plain gear-wheel and a double-flanged gear-wheel, combined and working together substantially as and for the purpose specified.

2. In combination with a roller-shaft and with a crank screwed upon the end of the same, a jam or locking nut placed upon said shaft outside of said crank when the screw-thread within said nut and upon which it traverses has a less or finer pitch than the screw-thread upon which said crank is placed, substantially as and for the purpose shown.

3. In combination with the pivoted button M and clamping-screw L, connected with and operating through the leg A', as shown, the pad N, constructed of or from elastic material and secured to or within said button, substantially as and for the purpose set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 25th day of January, 1873.

GEORGE S. PRINDLE.

Witnesses:
JOHN R. YOUNG,
GEO. TRUESDELL.