

R. S. CATHCART.
Clothes-Wringers.

No. 134,641.

Patented Jan. 7, 1873.

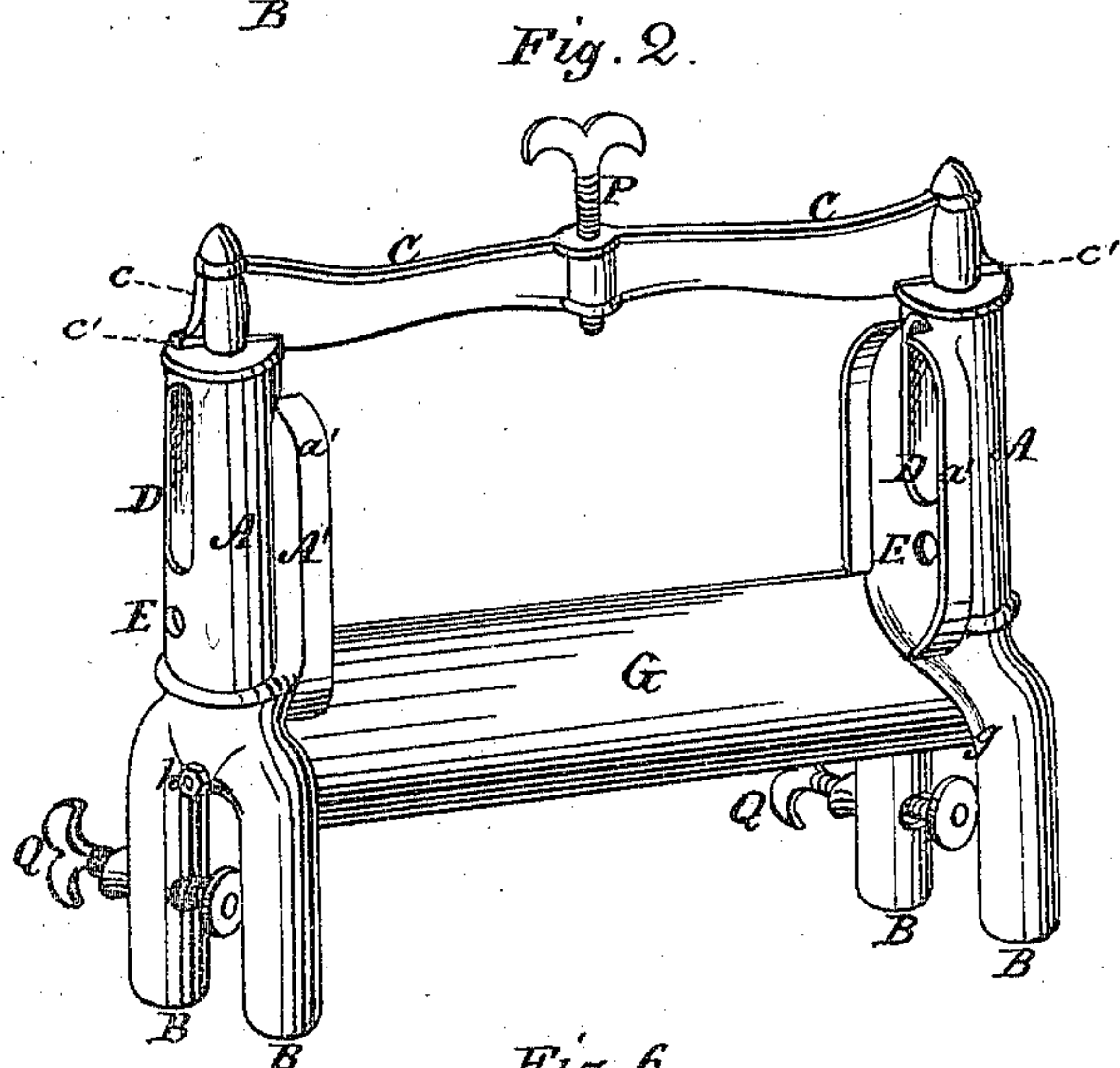
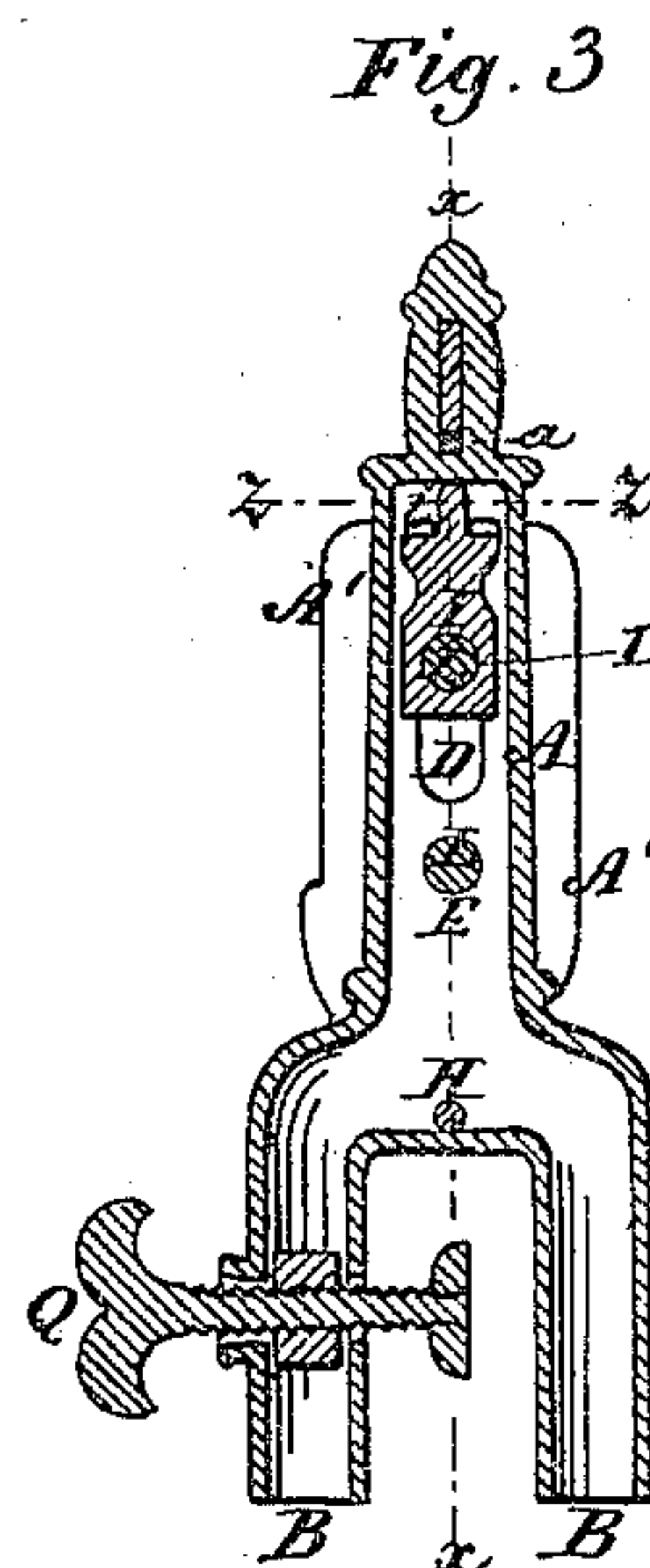
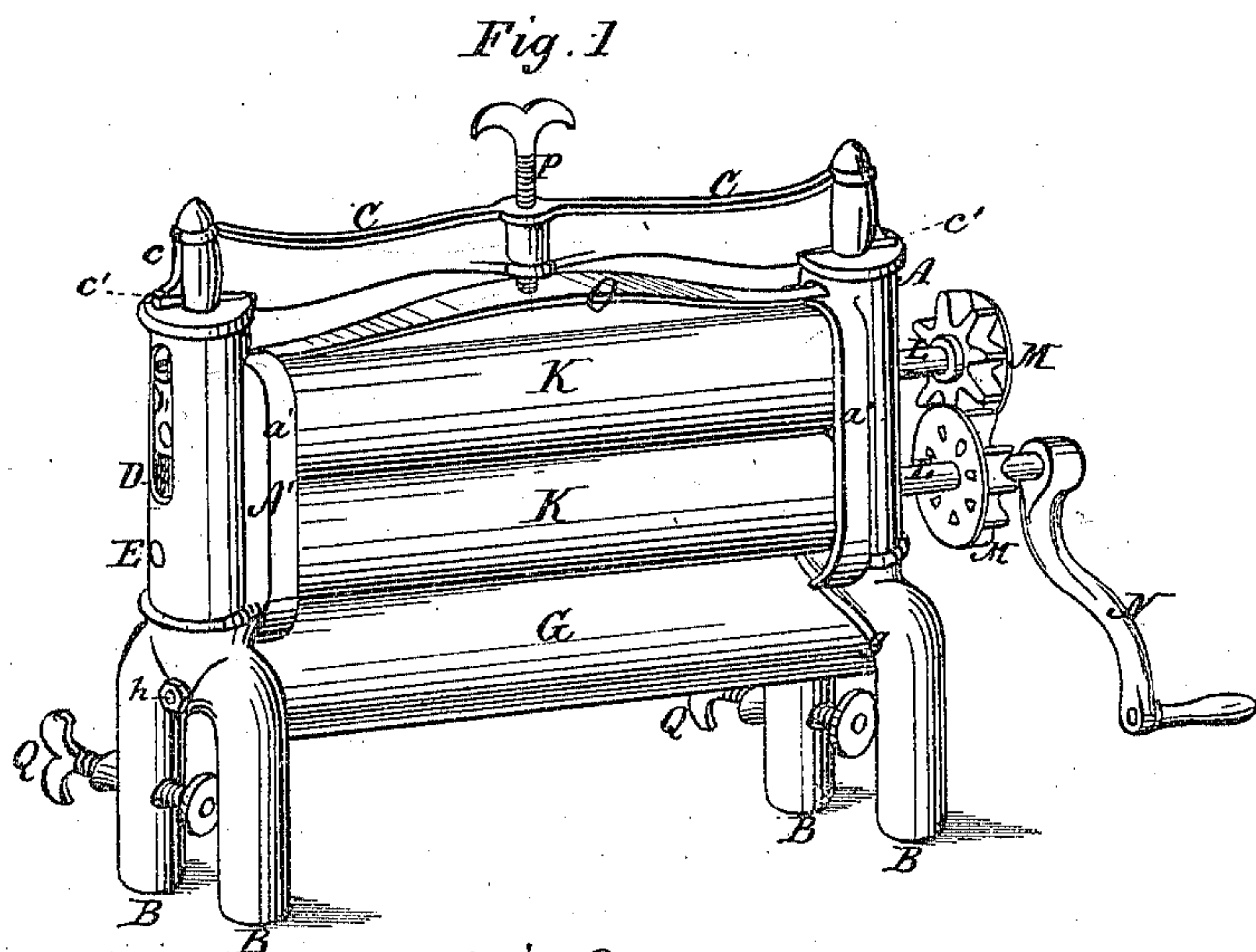


Fig. 4.

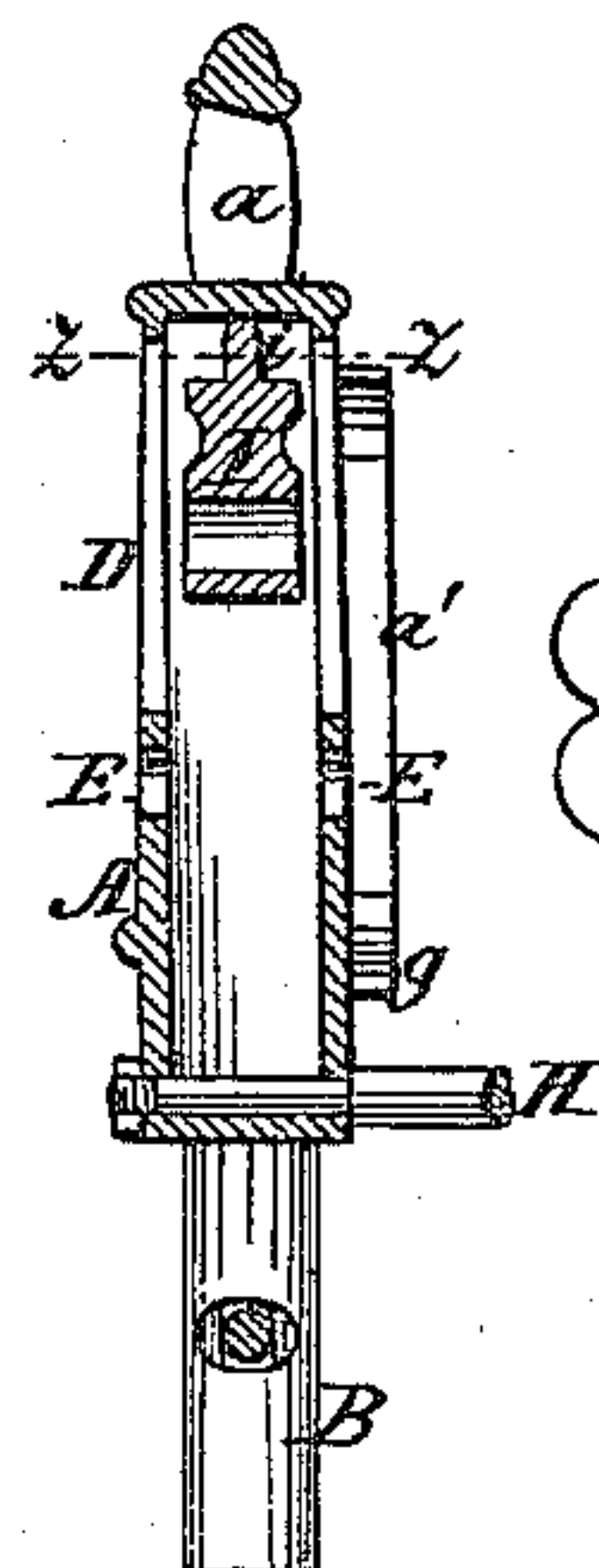


Fig. 5.

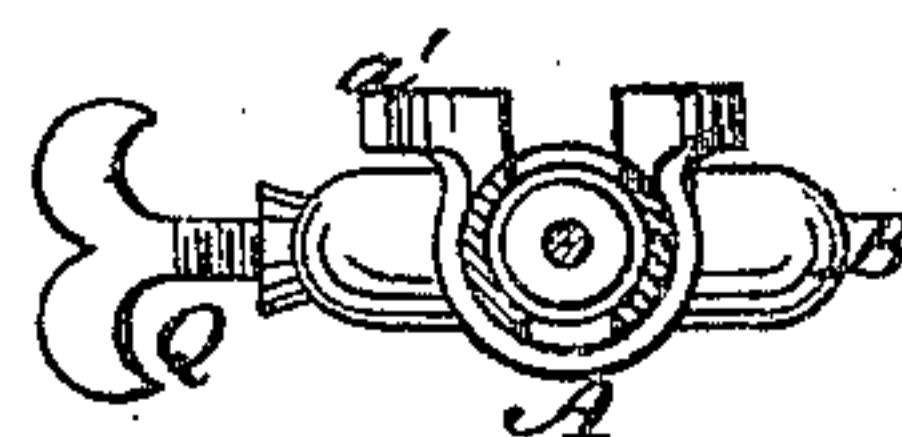


Fig. 6.

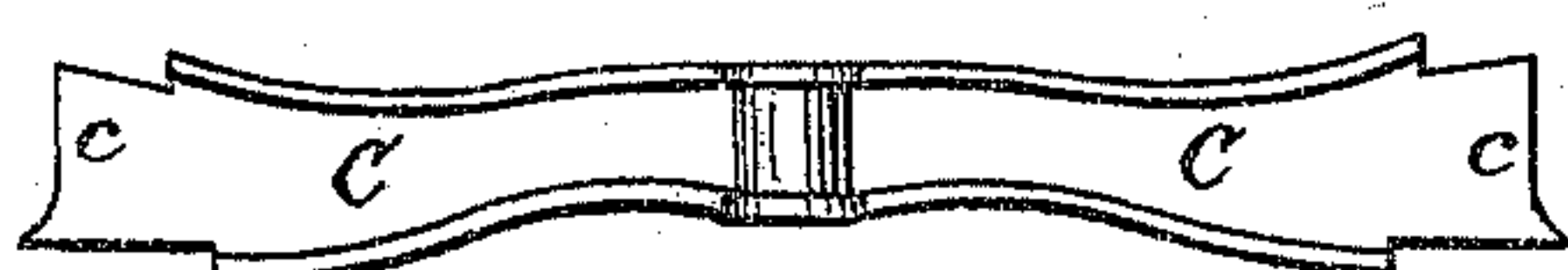
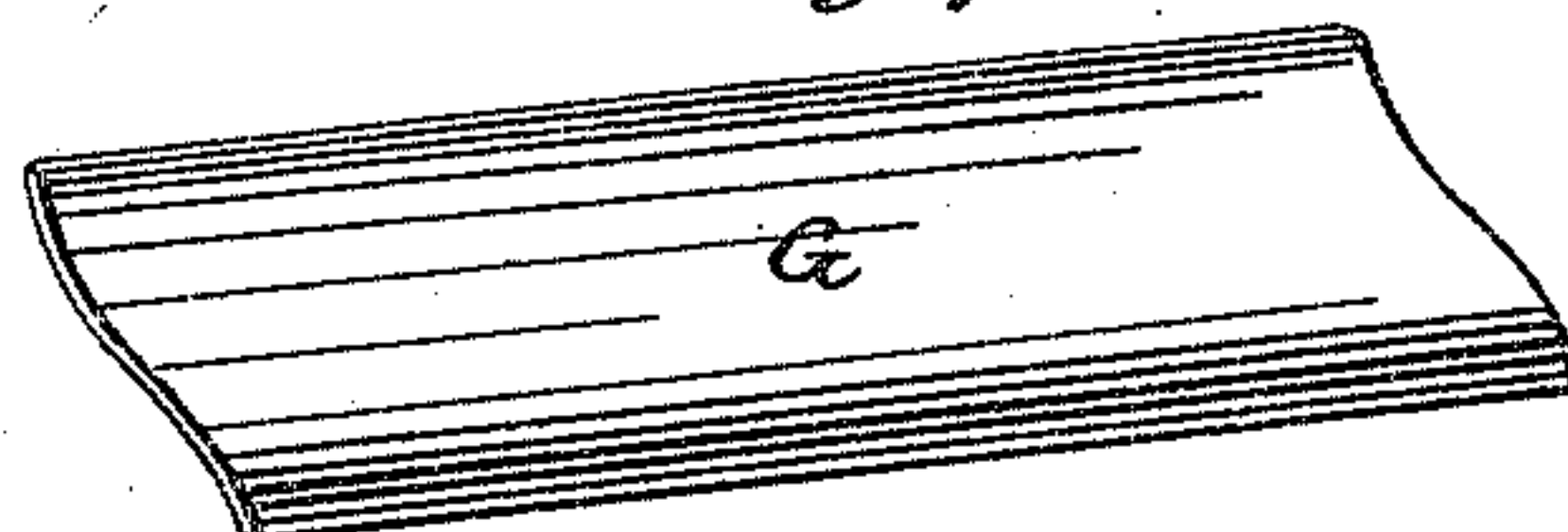


Fig. 7.



Witnesses.

Edmund Masson
John R. Young

Inventor.

R. S. Cathcart, by
Orinelle and his Attys

UNITED STATES PATENT OFFICE.

RODNEY S. CATHCART, OF CINCINNATI, OHIO, ASSIGNOR TO HIMSELF AND
THE QUEEN CITY WRINGER COMPANY, OF SAME PLACE.

IMPROVEMENT IN CLOTHES-WRINGERS.

Specification forming part of Letters Patent No. 134,641, dated January 7, 1873.

To all whom it may concern:

Be it known that I, RODNEY S. CATHCART, 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 my improved device complete and arranged for use; Fig. 2 is a like view of the frame, the rollers and compression-spring being detached; Fig. 3 is a vertical central section of one of the posts upon a line extending from front to rear; Fig. 4 is a like section of the same upon the line *xx* of Fig. 3; Fig. 5 is a horizontal section of said post upon line *zz* of Figs. 3 and 4; Fig. 6 is a front elevation of the top cross-bar, detached; and Fig. 7 is a perspective view of the dripping-pan.

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

My invention applies more especially to the frames of wringers constructed wholly of or from metal; and it consists, principally, in the construction of the top cross-bar, and the means employed for connecting the same to or with the posts, substantially as and for the purpose hereinafter specified; it consists, further, in the construction of the dripping-pan and its combination with the frame-legs, substantially as and for the purpose hereinafter shown; it consists, further, in the posts and vertically-movable journal-boxes when cast together in the form shown, substantially as and for the purpose hereinafter set forth; it consists, further, in the peculiar construction of the posts, substantially as and for the purpose hereinafter shown and described; it consists, further, in combining, with the upper or movable journal-boxes, studs or pins for limiting the upward movement of the same, substantially as and for the purpose hereinafter specified; it consists, finally, in the device as a whole, when its several parts are constructed and combined to operate substantially as and for the purpose shown.

In the annexed drawing, A and A represent the frame-posts, constructed of or from

metal, in the form shown, about one-third of the length from their lower ends upward being divided so as to form legs B. From their lower ends upward to the lower side of the top cross-bar C the posts are cast hollow, except at the point where a transverse opening, D, in each, forms a bearing for one journal of the shaft of the lower roller, while from a point immediately above said bearing to or near the upper end of said hollow portion, an opening, E, corresponding substantially in width to the diameter of the roller-shafts, extends inward through opposite sides of the wall of said post, said openings corresponding in direction to the line of said bearing D. From the hollow portion of each post upward to its end the size is considerably reduced, and within said portion is formed a narrow slot, *a*, which corresponds in height and width to the transverse dimensions of the end *c* of the top cross-bar C and receives the same. As seen in Fig. 6, the end *c* of said bar has, vertically, the form of a dovetailed tenon, its lower edge being horizontal, while its upper edge inclines upward and outward, the upper side of the mortise *a* having a corresponding inclination. After insertion within its mortise, the tenon *c* is raised against the upper side of the same and locked in place by means of a wedge, *c'*, placed between the lower sides of said tenon and mortise, the peculiar construction of said parts rendering but a slight pressure necessary in order that they may be firmly united. Upon its inner face each post, A, is extended to the front and rear between the lower side of the top cross-bar and the upper end of the legs B, and upon or around the edge of such extended portion A' is provided a laterally-projecting flange, *a'*, which, when the machine is complete, incloses the ends of the rollers and serves as a guide for the clothing being passed between the same. Upon the rear side the flange *a'* is removed below the level of the bearing D, and from the lower edge of such flange a groove, *g*, cut within the face of the post, extends downward and forward for a short distance in a curve, and thence in a straight line downward and forward, to the upper end of the front leg B. Within the grooves thus formed are placed the correspondingly-shaped ends of a sheet-metal plate, G, and the whole

firmly bound together by means of a rod, H, which passes through the posts beneath said plate G, and has upon its projecting threaded ends suitable nuts *h*, that bear against the outer faces of said posts; said plate thus constructed and combined being intended for both dripping-pan and lower cross-bar. The upper or movable journal-boxes I are cylindrical horizontally and somewhat less in diameter than the interior of the posts. In order that greater strength may be secured to the posts by enabling them to be constructed of or from one piece, the boxes I are cast in position within the former, and can only become detached therefrom by the breakage of one of said parts. The rollers K are provided with central shafts L, the ends of which pass through the bearings D and I, and are connected and operated by means of gear-wheels M and a crank, N, all in the usual manner. In order that the vertical motion of the rollers may be limited, so as to prevent the teeth of the gear-wheels from becoming disengaged, a stud or pin, *i*, is provided upon the upper end of each journal-box I, and, projecting vertically upward, strikes against the upper end of the cavity within the post whenever said box has reached the upward limit of its motion. The required elastic pressure of the rollers is obtained by means of a semi-elliptical spring, O, the ends of which rest upon the upper sides of the movable boxes I, while its central portion curves upward beneath the cross-bar C. A screw, P, passing downward through a threaded opening in said cross-bar, has its lower end bearing upon or against the longitudinal center of said spring, and enables the degree of pressure of the latter upon the journal-boxes to be adjusted at will. A clamping-screw, Q, suitably swiveled within one of each pair of legs B, completes the device, which operates in the usual manner.

The advantages obtained by my improvements are, first, the construction of the top cross-bar, and the means employed for connecting the same to or with the frame-posts, render easy the attachment or detachment of said parts, while, as they can be cast in the desired forms and united without any "fitting up," the expense of their production is materially lessened; second, the dripping-pan may be readily constructed from either cast or wrought metal at but a trifling expense, and, when combined with the posts, not only performs well the office indicated by its name,

but also furnishes an efficient brace for and by means of which the lower portion of the frame is rendered strong and durable; third, the posts and legs are strong and durable, and at the same time of comparatively light weight, while, by the casting of the movable journal-boxes within said posts, all liability to the accidental displacement of the same is prevented and one heretofore serious difficulty avoided; fourth, by means of the studs or stops secured upon and forming a part of the movable journal-boxes is avoided the disengagement of the teeth of the gear-wheels during the operation of the machine; fifth, as a whole the device is simple in construction, durable, and exceedingly strong, and can be produced at a much lower cost than has heretofore been practicable.

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

1. The top cross-bar C having the form shown, and provided with the dovetailed tenons *c*, in combination with the posts A provided with the mortises *a* and with the wedges *c'*, substantially as and for the purpose specified.
2. The dripping-pan G, constructed as shown, and combined with the posts A provided with the grooves *g*, substantially as and for the purpose shown.
3. The combined posts A and legs B, when constructed substantially as and for the purpose set forth.
4. In a wringer having a metal frame, a movable journal-box cast within and not detachable from the frame-post, substantially as and for the purpose shown and described.
5. In combination with the upper or movable journal box I, and with the slotted frame-post A, the stud *i* secured upon and extending upward from said box, substantially as and for the purpose specified.
6. The hereinbefore-described device as a whole, when its several parts are constructed and combined to operate substantially as and for the purpose shown.

In testimony that I claim the foregoing I have hereunto set my hand this 23d day of December, 1872.

RODNEY S. CATHCART.

Witnesses:

J. W. BREWSTER,
W. I. FITZGERALD.