(Model.)

C. K. STINSON.

CLOTHES WRINGER.

No. 343,970. Patented June 15, 1886.

Fig. 1.

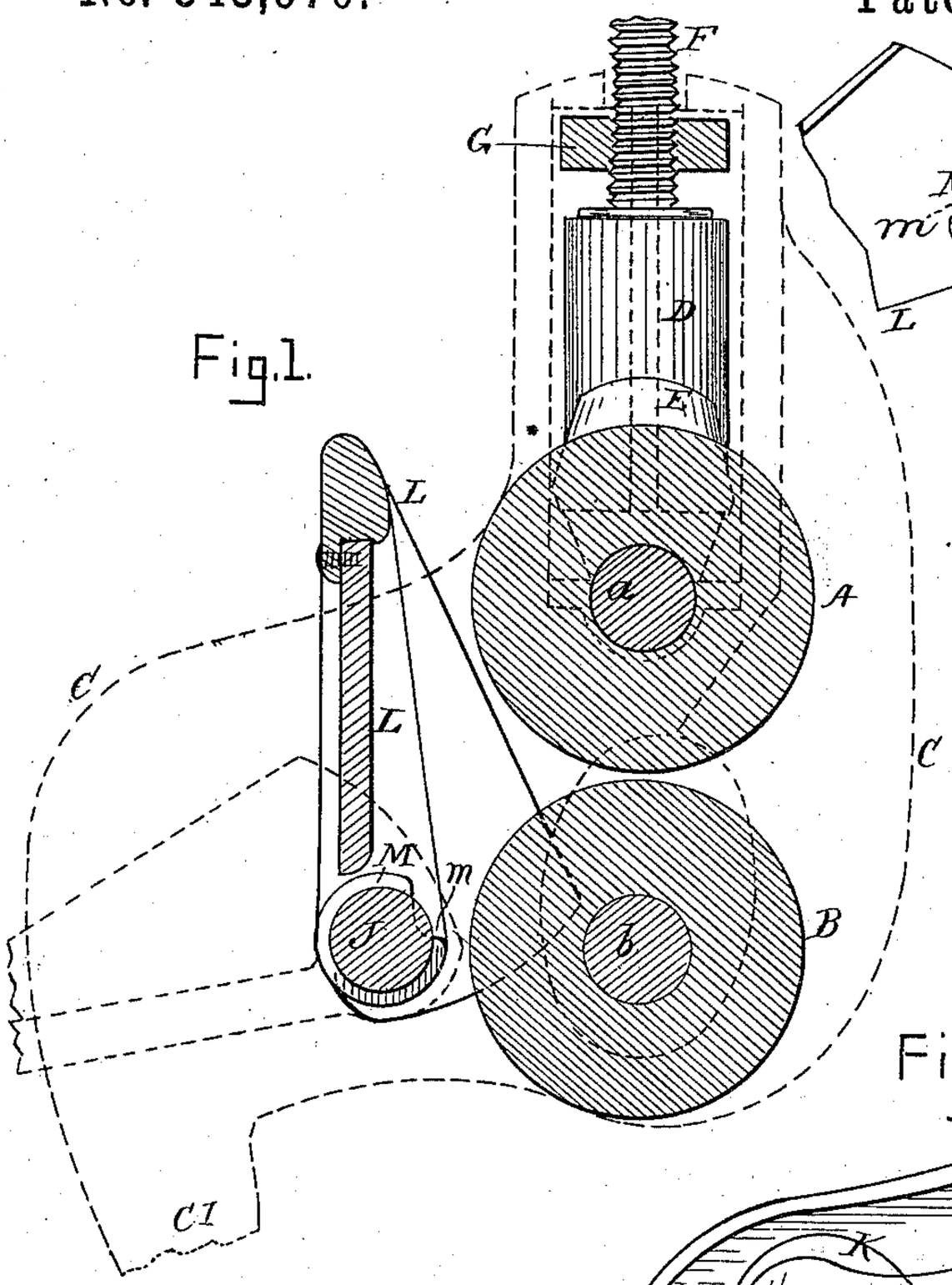


Fig. 3.

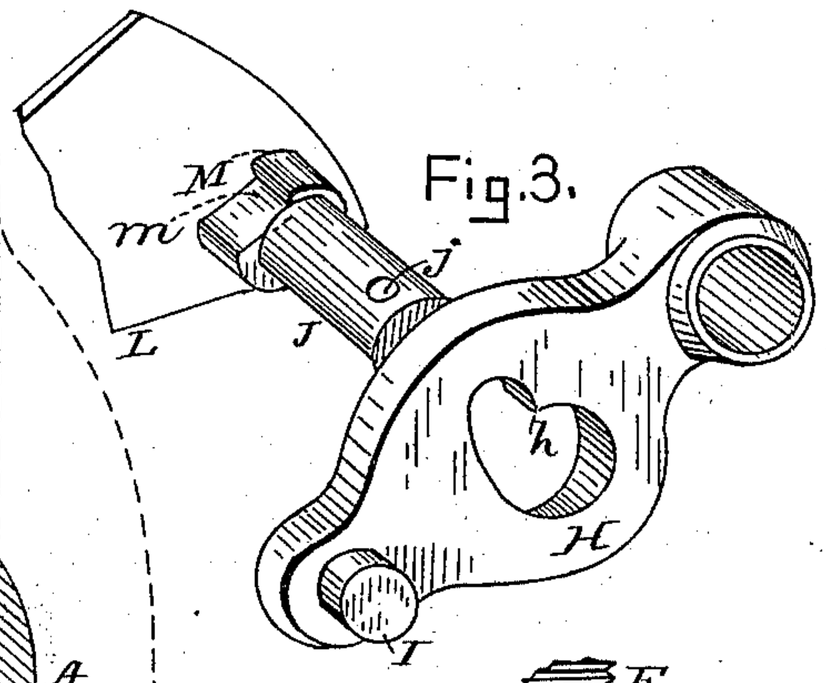


Fig. 2.

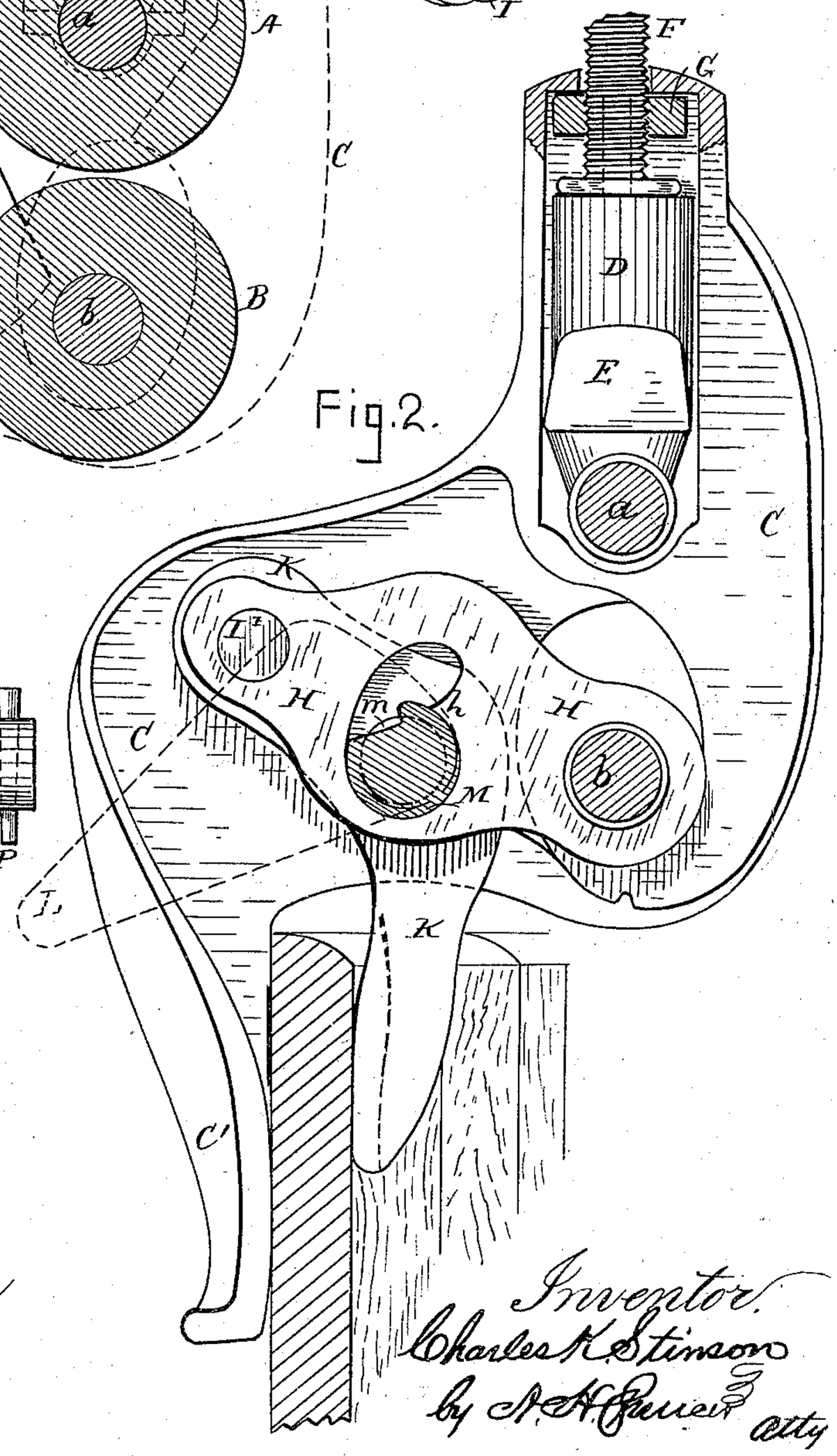
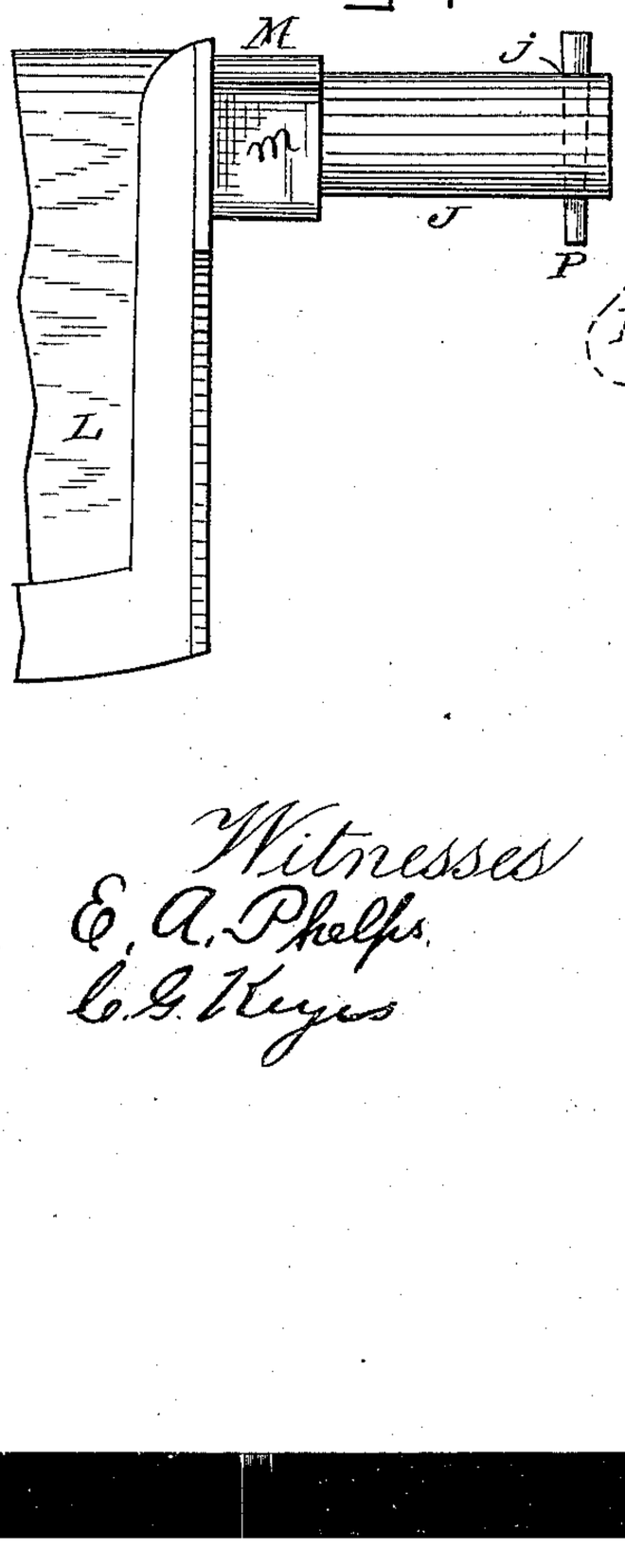


Fig. 4.



Witnesses
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UNITED STATES PATENT OFFICE.

CHARLES K. STINSON, OF BOSTON, ASSIGNOR TO LEVI LADD, OF NEEDHAM, MASSACHUSETTS.

CLOTHES-WRINGER.

SPECIFICATION forming part of Letters Patent No. 343,970, dated June 15, 1886.

Application filed June 5, 1884. Serial No. 133,926. (Model.)

To all whom it may concern:

Be it known that I, CHARLES K. STINSON, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Clothes-Wringers; and I do hereby declare that the same are fully described in the following specification, and illustrated in the accompanying drawings.

This invention is in the nature of an improvement upon wringers of the general class shown, or a wringer manufactured under Glidden's patent, No. 158,369, in which machine the rollers are pressed together and the tub-clamps simultaneously caused to grip the edge of the tub by the movement of a cam-board having at each end a projection which works in a long slot in the upper end of one of the clamp-jaws. Both jaws and the levers which carry the lower roller are fulcrumed upon a tie-rod running parallel with the rollers from end to end of the machine. This tie-rod, which is the center of motion in the frame as now on the market, and absolutely essential to its action, I omit altogether, and I so alter the remaining parts and their relative arrangement as to simplify and cheapen the machine materially.

The characteristic features of my improvement are, first, dispensing with the tie-rod and putting its functions upon the metallic portion of the clothes-guide; second, supporting the lower roller by a lever of the third class, and actuating this lever by a recessed cylinder formed adjacent to the journals of the clothes-guide and working in a corresponding opening in the middle of this lever.

In the drawings, Figure 1 is a transverse section through the rollers and clothes-guide, the latter being elevated as when the pressures are relaxed. Fig. 2 is a like view taken through the roller-journals in the plane of the inner face of the lower roll-supporting lever, the position of the parts being the same as in use or under pressure. Fig. 3 is a perspective view of this peculiar lever and of the end of the device which actuates it. Fig. 4 is another view showing one end of the clothes-guide.

A and B are respectively the upper and lower rollers of the machine, and *a b* their shafts or journals. C is the main end frame—an iron casting of suitable shape to form at its lower end one of the clamping-jaws C′, to support the machine on the edge of the tub, and at its upper end to receive the usual spring, D, and the bearing E, for the upper rollers, while the pressure-screw F, extending down through a hole in the upper end of this end frame, engages by its threads with the threaded ends of a cross-piece, G, in the usual manner. If preferred, the adjusting-screw may be omitted.

The lower roller is mounted by its journal *b* in bearings at one end of the lever H, the fulcrum of which is at its other end in the form of a projecting cylindrical stud or pin, I, as in Fig. 3; or the lever may have a cylindrical perforation at the same point, as indicated in Fig. 2, to receive a similar stud, I′, projecting inwardly from the upper end of the short clamp-jaw K. In either case this stud or fulcrum-pin entering the perforation of the other part forms a hinge and terminal connection of the lever H and the clamp-jaw K. I sometimes simply form a lateral recess for the pin in the upper end of this clamp-jaw; but I prefer the perforation, as it gives a positive opening movement to the clamps when the pressure is removed.

The clamp-jaw K is pivoted centrally upon the journal J of the pivoted clothes-guide L, which journal projects through the end frame, C. A pin, P, through the outer end of each journal keeps the end frames from spreading.

Midway of its length the lever H has a hole through it, the form shown resembling the figure 6, or an inverted comma, its lower part being substantially circular in outline, and its upper part elongated therefrom in an irregular curve with a well-defined shoulder, *h*, where the two parts meet, about as indicated in Figs. 2 and 3. This hole is formed to receive and coact with a recessed cylindrical portion, M, of the journals of the pivoted clothes-guide L. This recess *m* in the cylinder M is simply to admit the shoulder *h* of the lever when the guide L is turned up vertically, as in Fig. 1, permitting both ends of the lever H to drop somewhat. When the guide is turned down

into working position, the lever H is lifted by its shoulder *h*, since the cylindrical part rotates in the circular lower part of the hole in the lever H.

The clothes-guide L performs three distinct functions. The first is, it extends from end to end of the machine and connects longitudinally the several parts of the frame, serving thus as a tie-rod, each of its bearings passing through one of the levers H, clamp-bars K, and end frames or standards, C, and kept therein by a pin through a hole, *j*, in the journal, or by a terminal nut. The second office of the guide is, it forms a center of motion for the clamp-jaws C′ K, so that they will grip the edge of the tub when the recessed cylinder M, acting in the central hole of the lever H, forces the lower roller up against the upper one, serving thus to apply and release both the pressures. Its third function is the obvious one of receiving the clothes upon its inclined surface and delivering them from the tub after the water has been expressed by their passage between the rollers automatically held in close contact while the guide is in this inclined position.

The operation is as follows: When the clothes guide is turned up vertically, the recess *m* of the cylinder M is in position to receive the shoulder *h* of the lever H, permitting said lever to drop bodily downward, so as to relax the pressure of one roller against the other. This downward movement of the lever also carries down the upper end of the bent and pivoted clamp-jaw K, thereby throwing outwardly the lower end of said jaw and relaxing its pressure against the tub. When the clothes-guide is turned down into working position, these movements are reversed, as before stated.

I claim as my invention—

1. In combination with the frame and rolls of a clothes-wringer, a lever, as H, at each end of the frame, having bearing for the journals of the lower roll, and a guide having journals integral therewith, with bearings against the frame, and also in the levers, and provided with retaining devices, whereby the guide forms a tie which binds the frames and levers to each other, substantially as described.

2. In a clothes-wringer, the pivoted clothes-guide L, having at each end a recessed cylinder, M, and beyond this a cylindrical journal, J, with securing device at its extremity, in combination with the frames C, clamps K, and roller-supporting levers H, formed with the central hole and the shoulder *h*, to engage with said recessed cylinder, for the purposes set forth.

3. In a clothes-wringer, the third-class lever H, having at one end a bearing for the roller-journal *b*, at the center an aperture and shoulder for the application of pressure to tub and rollers, and at the other end a fulcrum, by means of which the clamp-bar K is actuated and connected to said lever, substantially as set forth.

In testimony whereof I hereto affix my signature in presence of two witnesses.

CHARLES K. STINSON.

Witnesses:
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E. A. PHELPS.