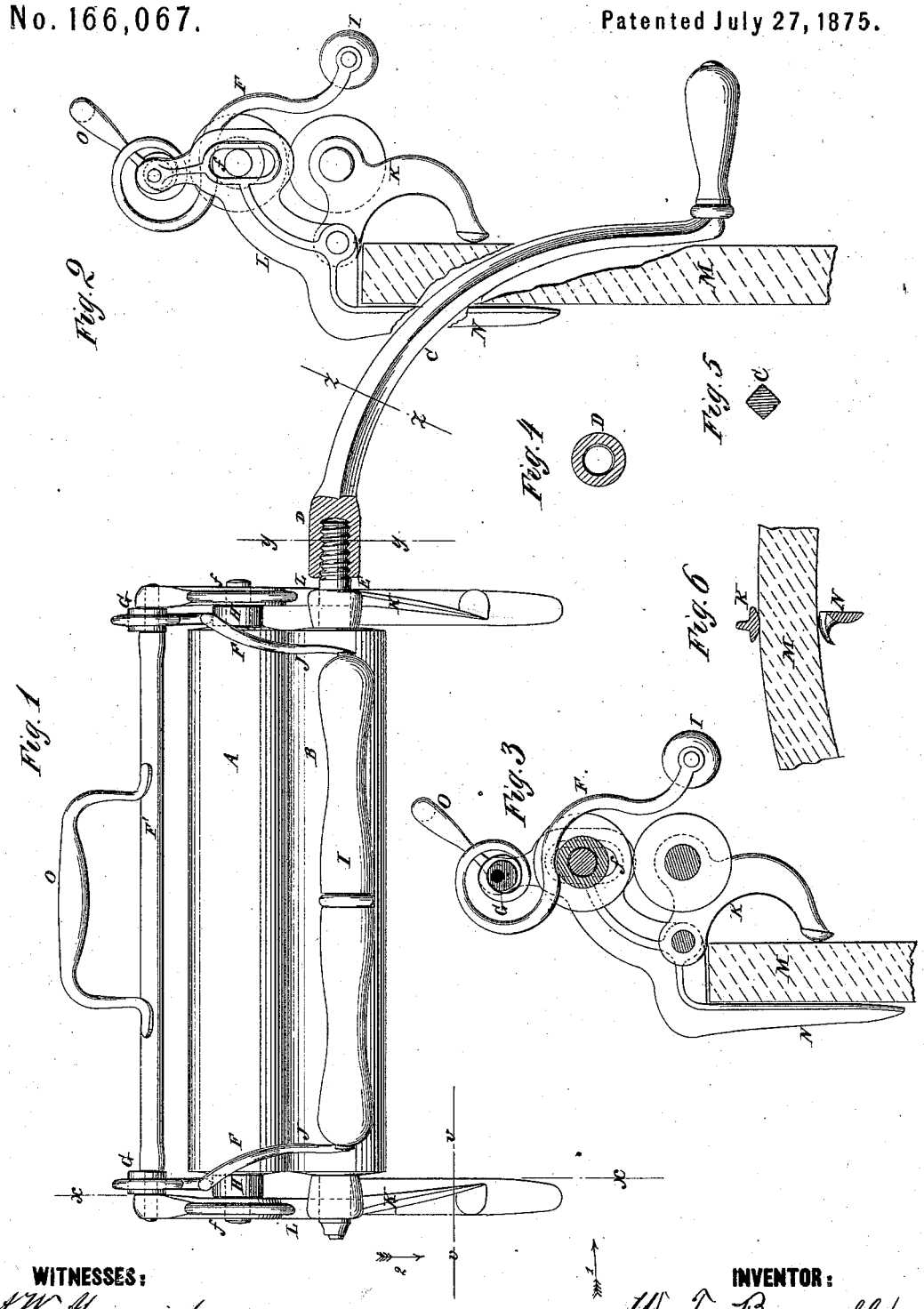
W. T. BUNNELL & A. G. RONAN.

Clothes Wringer.

No. 166,067. Patented July 27, 1875.



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UNITED STATES PATENT OFFICE.

WILLIAM T. BUNNELL AND ANSON G. RONAN, OF OTTAWA, CANADA; SAID RONAN ASSIGNOR TO SAID BUNNELL.

IMPROVEMENT IN CLOTHES-WRINGERS.

Specification forming part of Letters Patent No. **166,067**, dated July 27, 1875; application filed June 3, 1875.

To all whom it may concern:

Be it known that we, WILLIAM T. BUNNELL and ANSON G. RONAN, of Ottawa, in the county of Carlton and Dominion of Canada, have invented a new and useful Improvement in Clothes-Wringers, of which the following is a specification:

The invention will first be fully described in connection with drawing, and then pointed out in the claims.

In the accompanying drawing, Figure 1 is a front view of the wringer, partly in section. Fig. 2 is an end view. Fig. 3 is a vertical section, looking in the direction indicated by the arrow 1, from the line *x x*. Fig. 4 is a section through the line *y y*. Fig. 5 is a section on the line *z z* of Fig. 1. Fig. 6 is a section on the line *v v* of Fig. 1.

Similar letters of reference indicate corresponding parts.

A is the upper, and B the lower, rubber roller of the wringer. C is the driving-crank, which is attached, by means of a socket, D, to the end of the shaft E of the lower roller B. This shaft, instead of extending it out over the tub, as is usual, is made short, and the crank is extended, as seen in the drawing. F represents the spring-cams, the form of which is seen more plainly in Fig. 3. The end of this cam is coiled into the form of a volute, and it is connected with the roller F′ by eccentric G upon the ends of that roller. H H are friction-rolls on the shaft of the upper rubber roll A. I is a roller, by which the two cams are connected, and by which they are operated. The ends of these cams are bent inward, so as to form guides for the clothes when they pass in between the rubber rollers, as seen at J J. When the handle-roller I is forced down, as seen in the drawing, the spring-cams F F bear upon the friction-rolls H H, and force the upper rubber roller downward in contact with the lower rubber roller, and in doing that the crabs K K, in which the lower roll revolves, are made to clasp the tub or vessel, while the roller I serves as a guide to conduct the clothes between the rollers. The crabs K K are pivoted to the end frames L L. M represents the tub, which is clasped between the tongues N N of the ends and the crabs K K, as seen in the drawing at Fig. 3. The points of contact with the tub are seen in Fig. 6. The shaft of the upper rubber roll works in slot-holes *f* in the ends, as indicated by dotted lines in Fig. 3, and plainly seen in Fig. 2. The eccentrics G G in the eyes of the spring-cams allow, by turning the handle O up, to increase the pressure of the cams on the upper roller, and, by turning it down, to diminish it. This is done so that the pressure may be released instantly to prevent straining the wringer.

The throw of the eccentrics G G may be more or less, as may be desired.

One great advantage of this wringer is, there is no pressure on the rollers when the wringer is not in use, or when the handle I is raised. There is no gearing to break or get out of order.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. The combination of rock-shaft F′, having end eccentrics G G, the coiled pressers F F, and the friction-rolls H H with the upper roll of a wringer, as and for the purpose described.

2. The guide-roll I, suspended from the pressers F F of a wringer, as described, thus serving as a handle for the convenient manipulation of said pressers.

WILLIAM T. BUNNELL.
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