2 Sheets--Sheet 1.

C. ROBINSON.

Improvement in Washing and Wringing Machine Combined.

No. 132,985. Patented Nov. 12, 1872.

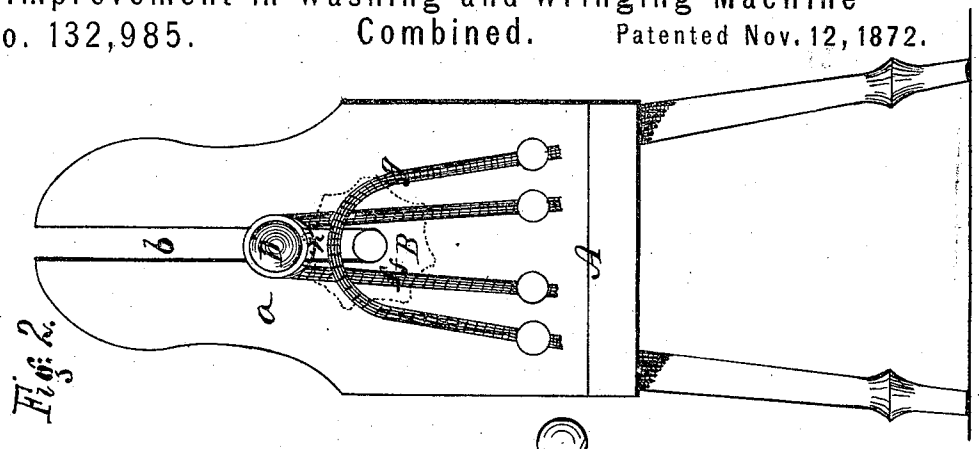

Fig. 2.

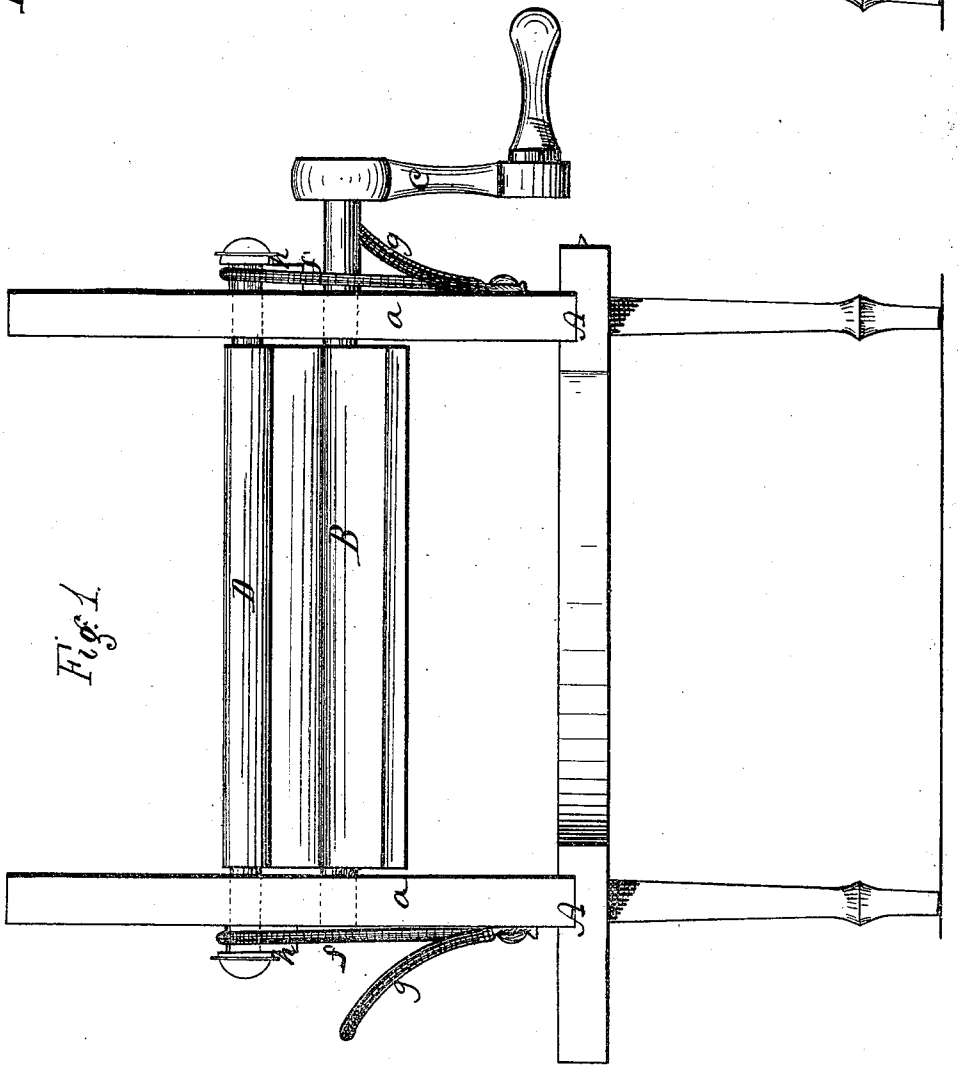

Fig. 1.

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AM. PHOTO-LITHOGRAPHIC CO. N.Y. (OSBORNE'S PROCESS.)

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C. ROBINSON.

Improvement in Washing and Washing Machine Combined.

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Fig 4.

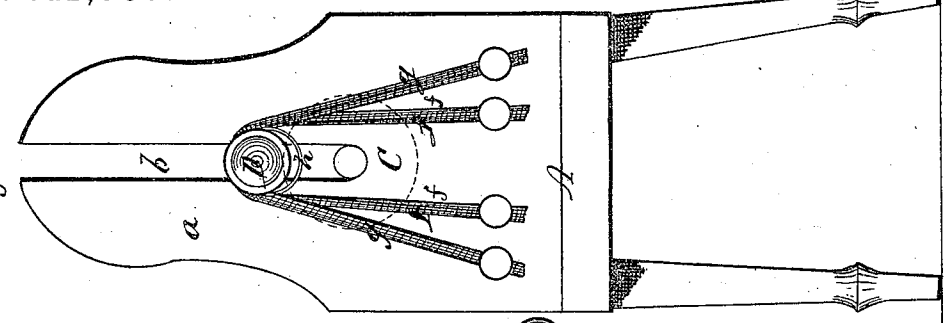
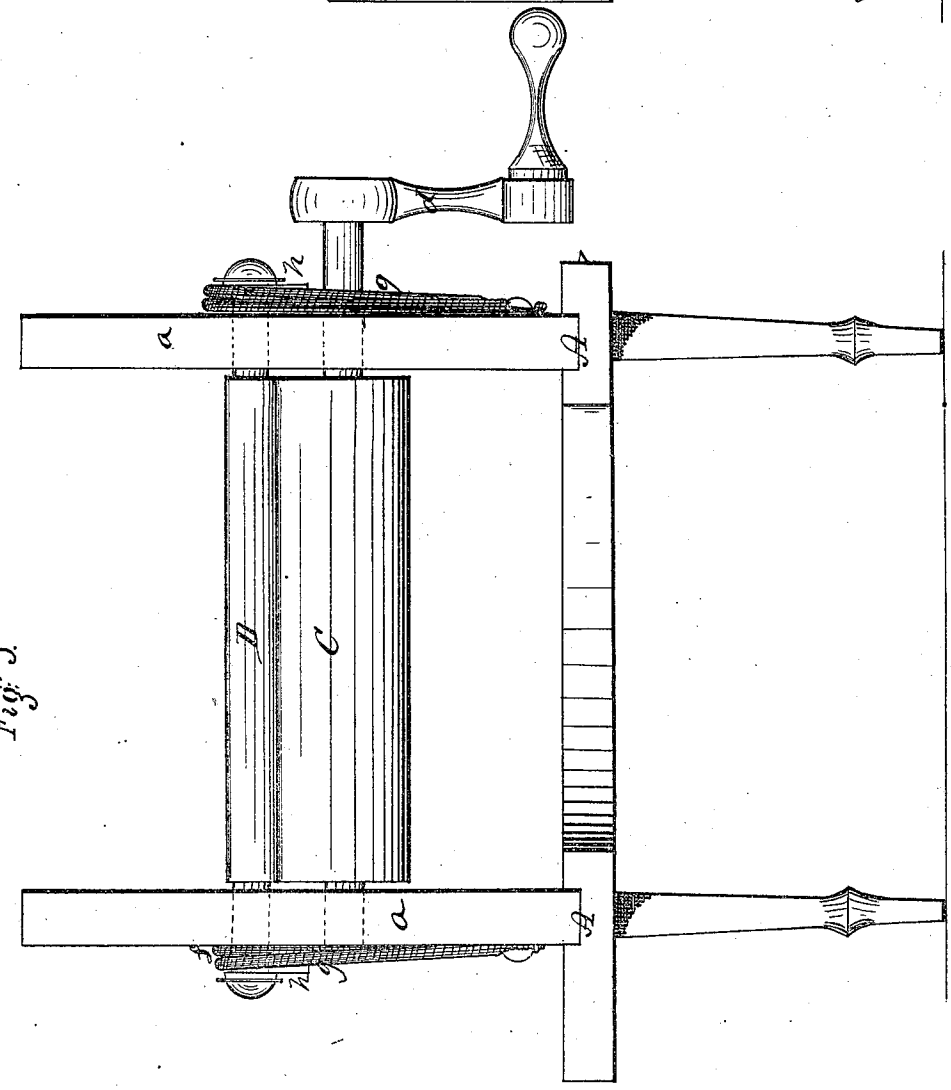


Fig 3.



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UNITED STATES PATENT OFFICE.

CHARLES ROBINSON, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN WASHING AND WRINGING MACHINES COMBINED.

Specification forming part of Letters Patent No. 132,985, dated November 12, 1872.

To all whom it may concern:

Be it known that I, CHARLES ROBINSON, of Boston, in the county of Suffolk and State of Massachusetts, have invented an Improved Combined Washing-Machine and Wringer; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawing making part of this specification—

Figure 1 being a side view, and Fig. 2 an end view, of the machine arranged for washing; Fig. 3 a side view, and Fig. 4 an end view, of the machine arranged for wringing.

Like letters designate corresponding parts in all of the figures.

My invention consists in a machine which, with a slight change of arrangement, is transformed into either a washing-machine or a wringer, substantially as herein specified.

Let A represent the frame, which is constructed as shown so as to be placed in a common wash-tub. Two standards, *a a*, of this frame have two deep notched bearings, *b b*, open at the top, semicircular at the bottom, and of the right transverse size, just sufficient to receive the journals of three rollers—first, a main washing-roller, B, which is fluted or corrugated, and is provided with a crank or winch, *c*, to turn it by; second, a main wringing-roller, C, covered with India rubber, and also provided with a crank or winch, *d*, to turn it by; third, a small roller, D, which is used as a counter-roller both to the main washing-roller and the main wringing-roller.

When the machine is arranged for a washing-machine, as in Figs. 1 and 2, the main washing-roller B is placed with its journals in the bottom of the notched bearings *b b*, and the small roller D is placed with its journals in the notched bearings so as to rest immediately upon the fluted roller below. On each standard *a* of the machine are secured two elastic loops or springs, *f g*, one of which, *f*, is placed over the projecting journals of the small roller D, and presses it down upon the main roller B with a moderate pressure, so that the clothes, being run forward and backward between the rollers, are efficiently and quickly washed. The journals of the small roller may have friction-sleeves *h h* for the springs *f f* to bear upon, so as not to wear them when the roller turns, and to facilitate the revolution of the roller.

When the machine is arranged for wringing, as in Figs. 3 and 4, the large wringing-roller C is placed in the bottom of the bearings *b b* instead of the washing-roller B, and the small roller D is inserted over it in the same way as for the washing-machine, and both pairs of springs *f g* are looped over its journals so as to give a strong pressure. The small inelastic roller, in connection with the large elastic roller, wrings efficiently by the narrowness of its bearing-surface, and at the same time the rollers pass the clothes through as rapidly as if both rollers were large.

The spring-loops are easily placed over the small roller D as well as slipped off, and the machine can be changed from a washer to a wringer, and vice versa, in a few seconds.

The whole machine can be sold at about half the sum of an ordinary rubber roller-wringer.

To draw off the water in wringing there may be a tap-hole in the tub to drain into another tub; or there may be a spout or inclined board to carry the water to another vessel.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination and arrangement of the frame A and rollers B C D, substantially as herein described, so as to form either a washing-machine or a wringer, as specified.

2. The combination of the two or more pairs of springs or spring-loops *f g* with the washing and wringing rollers, substantially as and for the purpose herein specified.

CHARLES ROBINSON.

Witnesses:

C. EDMUNDS,

GEO. R. HOUGH.