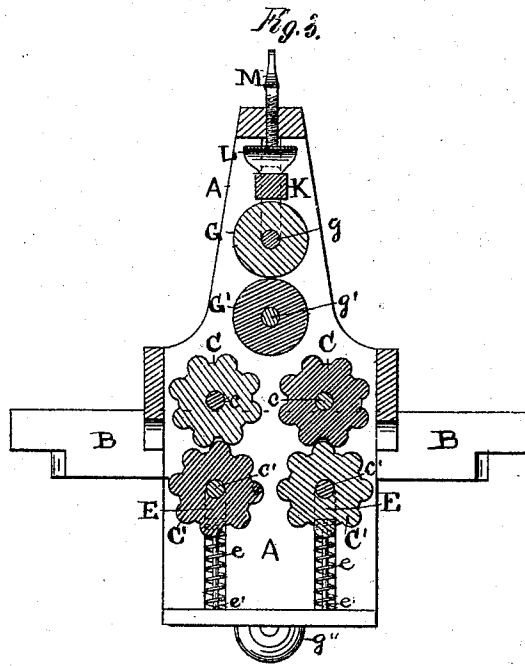
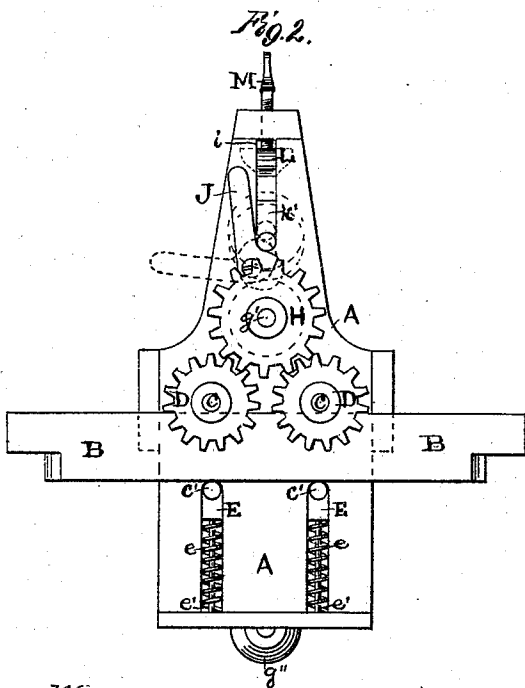
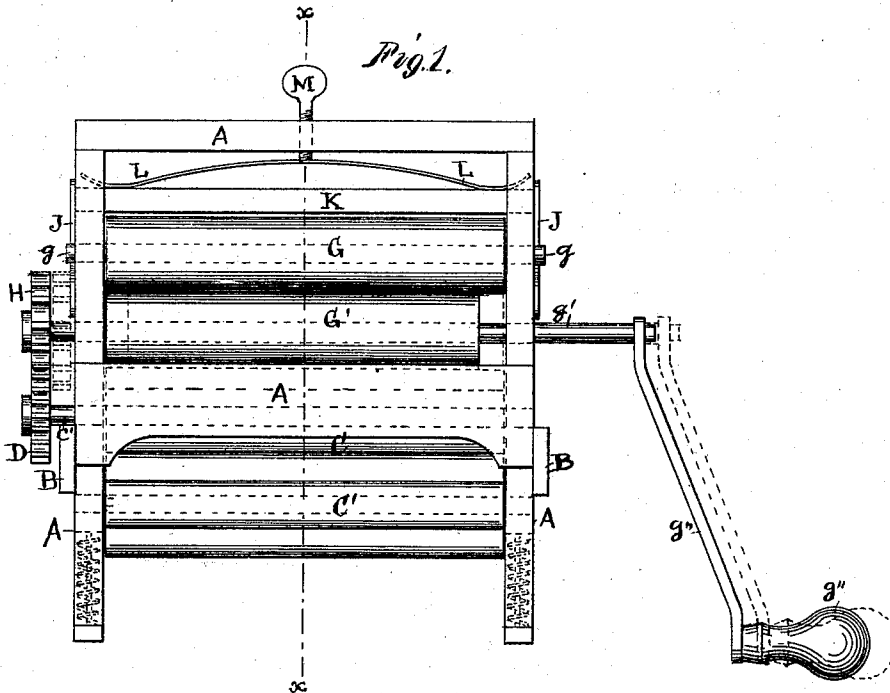


W. CARD.

WASHING AND WRINGING MACHINE.

No. 171,266.

Patented Dec. 21, 1875.



Witnesses:

W. C. Stuart
L. H. Bart,

Inventor:

William Card
(By) A. McCallum
Atty

UNITED STATES PATENT OFFICE.

WILLIAM CARD, OF RIPLEY TOWNSHIP, HURON COUNTY, OHIO, ASSIGNOR OF ONE-HALF HIS RIGHT TO WILLIAM LEWIS, OF SAME PLACE.

IMPROVEMENT IN WASHING AND WRINGING MACHINES.

Specification forming part of Letters Patent No. **171,266**, dated December 21, 1875; application filed August 10, 1875.

To all whom it may concern:

Be it known that I, WILLIAM CARD, of Ripley township, in the county of Huron and State of Ohio, have invented certain new and useful Improvements in Washing and Wringing Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawing, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to that class of combined washing and wringing machines which may be conveniently attached to and operated in connection with an ordinary wash-tub or other receptacle for holding the clothes to be cleansed; and the invention consists in certain new and improved combinations of devices hereinafter more fully set forth.

In the accompanying drawings, Figure 1 is a front elevation of my improved machine. Fig. 2 is a side elevation of the same, and Fig. 3 is a vertical sectional view taken in the line *x x*, Fig. 1.

Referring to the parts by letters, A represents the frame upon which the operating parts of the machine are supported, and B B are two side bars, the ends of which are extended beyond the frame A, and shaped to fit onto the upper edge or rim of a wash-tub or other receptacle. C C C' C' are four corrugated or fluted rollers of wood or other suitable material, the two upper gearing with the two lower rollers. The two upper rollers C C are mounted on shafts *c c* journaled in the sides of the frame A. These shafts *c c* pass through and project beyond one side of the frame, and have pinions or gear-wheels D D keyed on their ends. The lower rollers C' C' are also mounted on shafts *c' c'* journaled in bearing-blocks E E, placed in vertical slots formed in the sides of the frame for their reception, and supported by spiral springs *e e*, which occupy the spaces in the slots beneath the bearing-blocks. Vertical rods *e' e'* secured to the blocks pass through the coiled springs, and serve to keep the several parts of these spring-bearings in proper position. G G' are the

wringer-rollers, made of rubber or other suitable elastic material. The lower wringer-roller G' is mounted in a movable shaft, *g'*, which passes through and projects beyond the frame A on both sides. On the side on which the gear-wheels D D are, the shaft *g'* has a gear-wheel, H, which may be made to mesh with the wheels D D, for the purpose hereinafter set forth. The other end of the shaft *g'* has a crank-handle, *g''*, secured to it, and by which it is turned. The upper wringer-roller G is mounted on a shaft, *g*, the ends of which pass through vertical slots *i* formed in the upper portion of the sides of the frame A, and project slightly beyond the frame, as clearly shown in Fig. 1 of the drawings. This roller G is made so that it can rise and fall, and be adjusted to any desired height or distance from the roller G'. This adjustment is affected by means of cam-levers J J, which are pivoted to the sides of the frame, as clearly shown in Fig. 2 of the drawings. K is a follower or cross-bar with vertically-pendent blocks *k*, which fit the slots *i* in the frame, their lower ends resting on the shaft of the roller G. L is a bow-shaped metal spring, the ends of which bear against the upper side of the follower-bar K, the pressure of the spring on the bar being regulated by means of a thumb-screw, M, which passes through the center of the upper rail of the frame A, as clearly shown in the drawings.

The operation of my improved machine is as follows: The clothes to be cleansed being placed in the wash-tub or other receptacle with water and soap or other cleansing materials, the movable shaft *g'* is pushed inwardly from the crank-handle until the wheel H meshes with the wheels D D, as shown by full lines in Fig. 1 of the drawings; then by turning the handle the rollers C C C' C' revolve and carry the clothes through between them with a rubbing motion, thereby cleansing them. During this operation the upper wringer-roller G may be elevated by means of the cam-levers J, so as not to operate through contact with the lower roller, G', as shown by dotted lines in Fig. 2 of the drawings. When it is desired to rinse and wring the clothes by one operation of the machine,

the upper wringer-roller G is brought into contact with the lower roller G', as shown by full lines in the drawings, and the clothes, after passing through between the rollers C C', are conducted through between the wringer-rollers. When it is desired to use the wringer-rollers alone, the movable shaft g' is drawn out until the wheel H no longer gears with the wheels D D, as shown by dotted lines in Fig. 1 of the drawings, when the latter will cease to operate, and the clothes may be passed through the wringer-roller without coming in contact with the rubbing-rollers C C. The spring-bearings E e of the lower rubbing-rollers C' keep the latter in working position, but permit them to yield to undue pressure when the clothes in bulky masses pass between them, and the upper-rollers C, and the spring L and follower K, serve a like purpose in the opera-

tion of the upper wringer-roller G, so that all injury to the clothes through undue pressure between the rollers is thereby obviated.

Having thus described my improved machine, what I claim as new, and desire to secure by Letters Patent, is—

The combination of rollers C C C' C', spring-bearings E e, and gearing D D, with the movable shaft g' and gearing H, wringer-rollers G' G, spring L, and follower K, substantially as and for the purpose set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

WILLIAM CARD.

Witnesses:

C. B. STICKNEY,
B. P. SMITH.