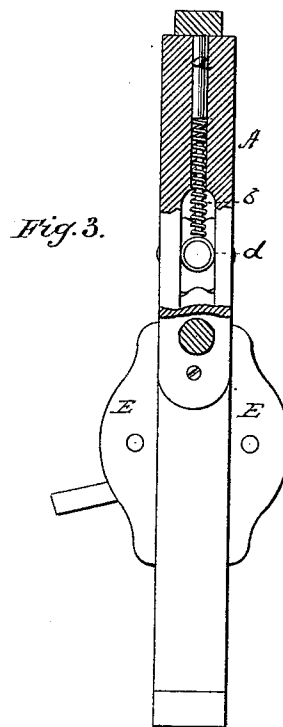
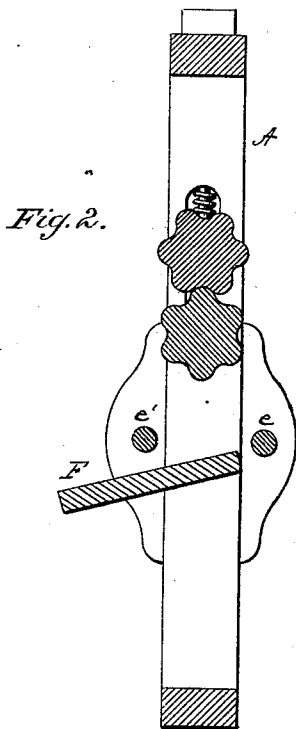
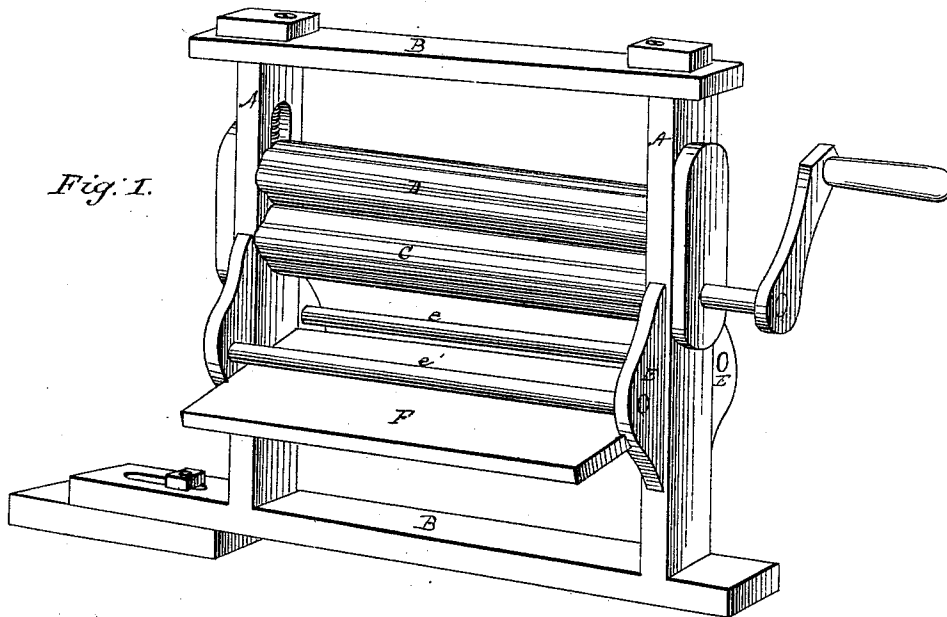


F. M. KARR.
 WASHING-MACHINE.

No. 185,933.

Patented Jan. 2, 1877.



Witnesses:

C. Clarence Poole
 David G. Weems.

Inventor

Francis M. Karr
 per Atty. A. H. Evans & Co.

UNITED STATES PATENT OFFICE.

FRANCIS M. KARR, OF WINTERSET, IOWA.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **185,933**, dated January 2, 1877; application filed November 13, 1876.

To all whom it may concern:

Be it known that I, F. M. KARR, of Winterset, Iowa, have invented certain new and useful Improvements in Washing-Machines, of which the following is a clear, full, and correct description, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a perspective view of my improved machine. Fig. 2 is a vertical cross-section of the same. Fig. 3 is an end elevation, partially broken away.

My invention relates to machines for washing clothes; and it consists in the combination of devices hereinafter described and claimed.

To enable others skilled in the art to make and use my invention, I will proceed to describe the exact manner in which I have carried it out.

In the drawings, A A represent the framework supporting the operative devices, secured at the bottom and top by the cross-ties B B. The posts A A are slotted, as shown in Fig. 3, to afford a bearing to the fluted or corrugated roller C. Above this roller is secured a corresponding roller, D, having its bearings in thimbles *d d*, from which rise the vertical rods *a a*, provided with the coiled springs *b b*, extending up into the posts A A, as shown in Fig. 3. The corrugations of the rollers C D are made of the same size and shape, so they will exactly fit and gear into each other when there is no intervening substance. The tendency of the springs *b b* is to keep the roller D pressed down upon the roller C, the same pressure being transferred to any substance passing between the rollers.

On each side of the posts A are secured the wings E, which furnish bearings for the supplemental rollers *e e'*, placed below and on each side of the corrugated main rollers

C D, for a purpose hereinafter explained. Again, below the roller *e'*, I place the guard-board F, secured in inclined grooves made in the inner sides of the posts A A, the guard-board having a sufficient incline to secure a ready drainage.

Now, the operation of my invention is as follows: The machine is placed as usual in a tub, and there secured by any well-known means. The clothes to be washed are passed between the corrugated rollers C D, to be pressed and cleansed, and if any fall from the large rollers they are caught upon the supplemental rollers *e e'*.

When the clothes are passed through the machine for the last time the guard-board F prevents their falling back into the water.

The supplemental rollers *e e'*, placed below and on each side of the corrugated rollers C D, serve an important purpose in the operation, as, in the hurry of pressing and cleansing the clothes by passing them through the corrugated rollers, articles are liable to drop accidentally from these rollers, and fall back in the water, thereby necessitating a renewal of the work; but by the location of my supplemental rollers on each side of the machine, the clothes thus falling are caught before they again reach the water, thus saving much time and labor in the operation of washing and cleansing the articles.

Having thus explained my invention, what I claim as new is—

A washing-machine, provided with the corrugated rollers C D, supplemental rollers *e e'*, and guard-board F, all constructed to operate substantially as and for the purpose described.

FRANCIS M. KARR.

Witnesses:

A. W. WILKINSON,
W. R. SHRIVER.