





WILLIAM W. COX, OF CARBONDALE, ILLINOIS.

Letters Patent No. 70,967, dated November 19, 1867.

IMPROVED WASHING MACHINE.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, WILLIAM W. COX, of Carbondale, in the county of Jackson, and State of Illinois, have invented a new and improved Washing Machine; 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 make and use the same, reference being had to the accompanying drawings forming part of this specification, in which—

Figure 1 represents a vertical longitudinal sectional view of my improved washing machine, the plane of section being indicated by the line *x x*, fig. 2.

Figure 2 is a vertical transverse sectional view of the same, the plane of section being indicated by the line *y y*, fig. 1.

Figure 3 is a detail horizontal sectional view, the plane of section being indicated by the line *z z*, fig. 1.

Similar letters of reference indicate like parts.

This invention relates to an improved washing machine, of that class in which a revolving corrugated roller is arranged above an endless apron in such a manner that the articles to be washed are drawn between the roller and apron. The invention consists in the manner of hanging one of the rollers, around which the apron passes, said roller being arranged nearly under the aforesaid corrugated roller. It is hung in dove-tail blocks which slide in corresponding grooves that are provided in the side boards of the suds-box. Spiral or other springs, the pressure of which can be regulated by means of nuts, press this roller against the corrugated roller, and the articles to be washed are, when placed upon the apron, brought between the two rollers and worked between them until cleaned. The lower roller yields to allow the articles to be washed to pass between the rollers, and by the nuts the pressure is adjusted, in accordance with the nature of the article to be washed. The invention also consists in the device for operating the machine; said device consisting of a treadle, which is connected, by means of rods, with cranks formed on the axle of the corrugated roller, that by means of the treadle, the said corrugated roller can be revolved. The roller over which the endless apron passes, being, by means of the springs, pressed against the corrugated roller, is thus also revolved, and the endless apron is carried around without using any gear-wheels or other connections, between the corrugated roller and the apron rollers. The whole machine being operated by the treadle, both hands of the operator are free to adjust the wash on the apron, and to remove the same and reinsert it, as may be required.

A represents a suds-box, of suitable construction, made of wood or other suitable material. Its bottom, *a*, is either wholly or partly inclined. It is supported by four, more or less, legs B B, which are secured near the corners of the box to the side boards *b b* of the same, as shown. C is a corrugated roller, having its bearings in the side boards *b b* of the box A. It is made of wood, and covered with corrugated metal, as shown in fig. 1. Its bearings are near to the upper edge of the side boards, as shown. To one end of the roller C is attached a fly-wheel, D, on the outside of the box. On both ends of the roller C are cranks *c c*, of equal length and position. To their ends are attached rods, *d d*, which connect the roller C with a treadle, E, that is arranged below the suds-box, between the legs B, as shown. This treadle consists of two longitudinal bars *e e*, which are pivoted to the legs that are at the rear end of the box, said bars being connected at their outer ends by a tread-board, *f*, and near their centres by a cross-bar, *g*, the ends of which latter extend beyond the bars *e* to receive the lower ends of the connecting-rods *d d*, as is clearly shown in the drawings. F is a smooth roller, having its bearings in dove-tail blocks *h h*, that slide in corresponding grooves *i i*, the latter being provided in an inclined direction on the inside of the side boards *b b* of the box A, as is clearly shown in the drawings. The upper ends of the grooves *i* are closed. *j j* are rods, which extend from the blocks *h*, through the covers of the grooves *i*, and which carry on their outer ends spiral or other springs K K. *l l* are nuts, which are fitted upon the rods *j*, to compress the springs K. The further these nuts are screwed down the more will the springs press against them, and with the more pressure will the roller F be brought against the roller C, below which it is arranged as shown. The roller F is covered with felt or other elastic material, and carries an endless apron, G, which passes also over another roller, H, as shown in fig. 1. The roller H is fixed, unadjustable, between the side boards *b b* of the box, near to the front end of the same, as shown. The wash is placed upon the apron G, and is brought under the roller C, which is revolved in the direction of the arrow 1 in fig. 1. Thereby the apron is moved in the direction of the arrow 2.

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

1. The corrugated roller C, in combination with the roller F, apron G, dove-tail blocks *h*, springs K, and nuts *l*, all made and operating substantially as and for the purpose herein shown and described.
2. The above, in combination with the treadle E, when the same is made as set forth.

WILLIAM W. COX.

Witnesses:

D. A. G. GENT,

W. C. KENT.