

J. H. SWAN.

Combined Washers and Wringers.

No. 148,581.

Patented March 17, 1874.

FIG. 1.

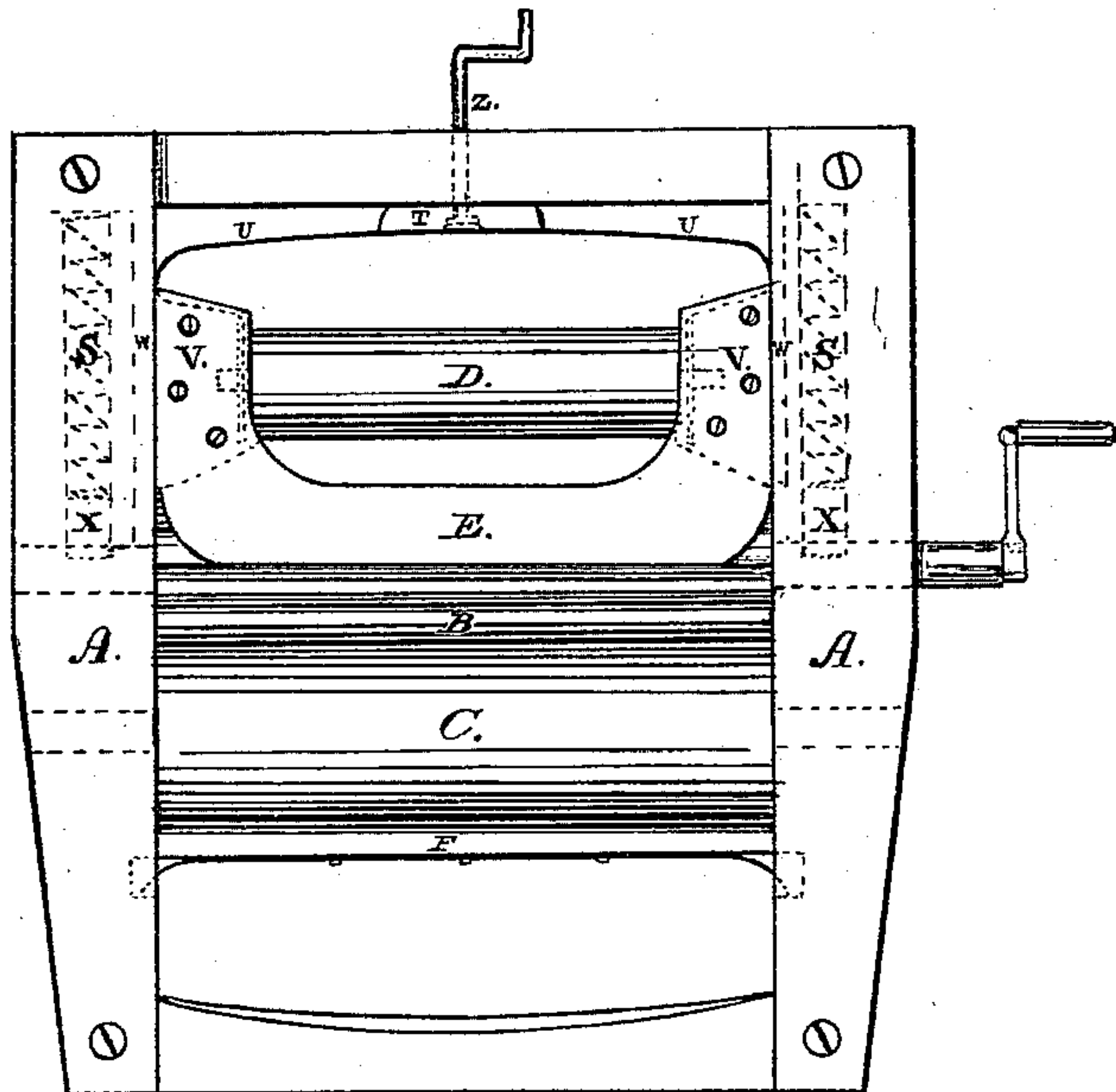
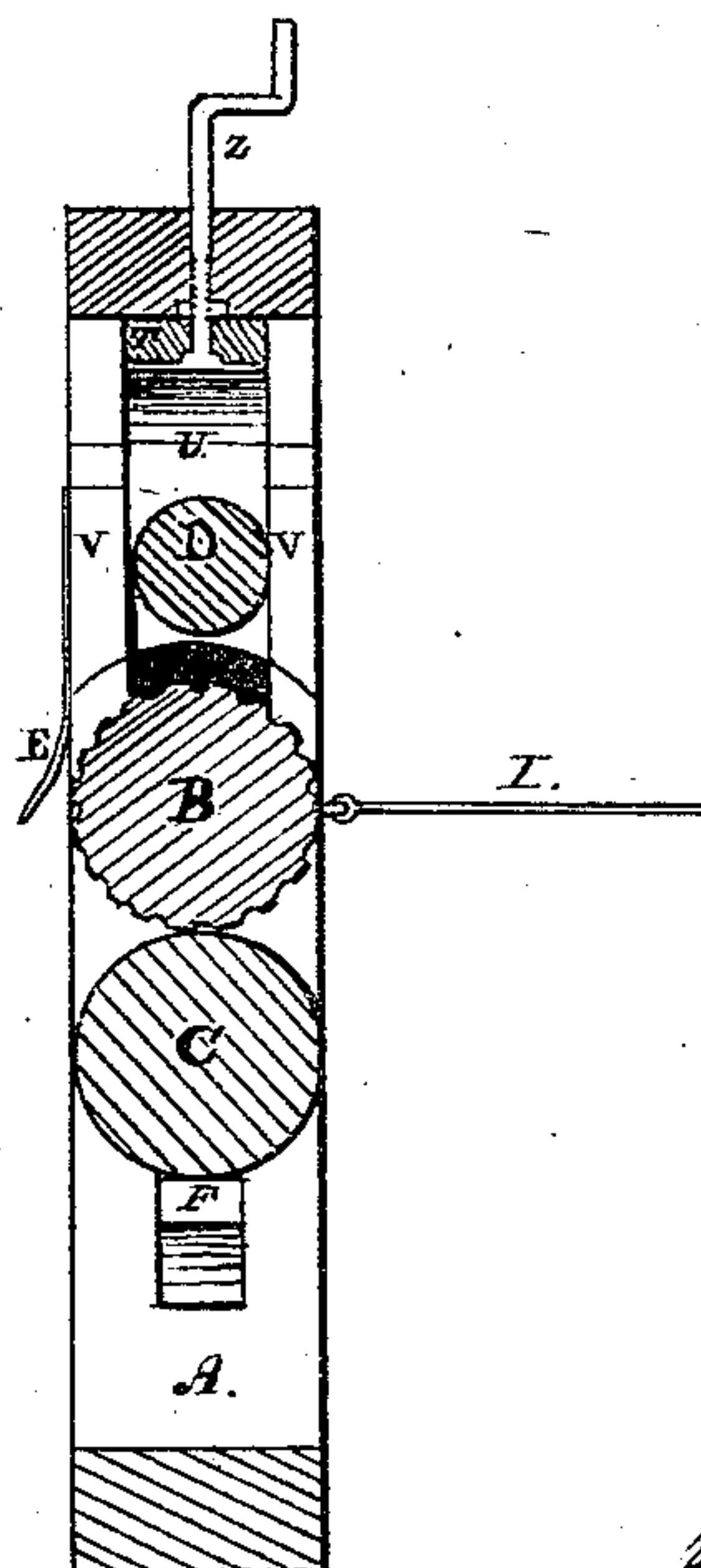


FIG. 2.



WITNESSES.

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J. HILTON SWAN, OF NEW CASTLE, DELAWARE.

IMPROVEMENT IN COMBINED WASHERS AND WRINGERS.

Specification forming part of Letters Patent No. 148,581, dated March 17, 1874; application filed June 11, 1873.

To all whom it may concern:

Be it known that I, J. HILTON SWAN, of the town of New Castle, in the county of New Castle and State of Delaware, have invented Improvements in Apparatus for Washing and Wringing Clothes, of which the following is a specification:

My invention relates to the combination of a corrugated or fluted cylinder with two rollers, in such manner that clothing may be washed and wrung by the same machine without passing from the tub.

Figure 1 is a front elevation of a machine embodying my invention. Fig. 2 is a vertical transverse section, showing those parts of the machine which are to the left of the center of Fig. 1.

A A is the frame of the machine, so constructed as to sit firmly within any ordinary washing-tub. B is the driving corrugated or fluted cylinder, placed in the center of the frame, its axis revolving in slots and kept in place by concave-faced blocks attached to strong spiral springs, which are let in holes bored for that purpose in each upright or post, the blocks being marked X, and the spring S, in the drawing. Below this is the roller C, used in the process of washing. F is a spring-bar, for preventing the clothes from following the roller. D is the rubber roller, used in wringing. This roller is supported by a strong spring, U, being set or hung in and upon the ends of the spring, which is attached to the blocks V V, which work in ways on the inside of each post of the frame as far down as the face of the cylinder B. This rubber roller and its supporting-spring U are moved upward and downward by means of a set-screw, Z, passing through a nut set in the top bar of the frame, and fastened to it by means of a block, T, which holds the bolt-head of the screw and the bolts fastening the spring. The shape of this spring U is shown by the dotted lines on the face of the blocks V V, and is thus constructed for the double purpose of raising and forcing down the rubber roller D in the process of wringing. E is a feed-guide, for the purpose of readily feeding the clothing be-

tween the rollers B and D. I is a guide-board, for preventing the return of the clothes to the water after wringing, and when not in use is turned up against the frame.

The clothes to be washed are introduced from the front, as shown in Fig. 1, and, being grasped by the cylinders or rollers B and C, are by them drawn forward and backward until cleansed, the spiral springs S S, with their appendage X X, permitting the clothing, of whatever thickness, to enter between the rollers, and being of a strength sufficient to furnish the required pressure in order to properly cleanse the articles. The roller or cylinder B, being set in slots, rises and falls in the introduction and removal of the clothing. After washing thoroughly, the article is then passed under the guide E, introduced between the rollers B and D, (the roller D being brought down tightly and firmly upon the roller B,) by the operation of the rollers is drawn out over the guide-board I, wrung, and ready for drying.

The supporting-spring U is constructed sufficiently strong to present sufficient resistance to the clothing between these rollers to wring them perfectly.

The only operating agent in both processes of washing and wringing is the crank attached to the center cylinder B, no other being used in giving motion to any and all of the cylinders or rollers.

I am aware that rollers both fluted and plain have before been used in washing-machines; and, therefore, I do not claim these in themselves; but

What I claim as my invention is—

The combined washer and wringer, constructed substantially as described, with the auxiliary rollers D and C, arranged above and below the main corrugated roller B, respectively, and being provided with the feed-guide E and guide-board I, as and for the purposes specified.

J. HILTON SWAN.

Witnesses:

WM. H. DOBB,
DANIEL RODNEY.