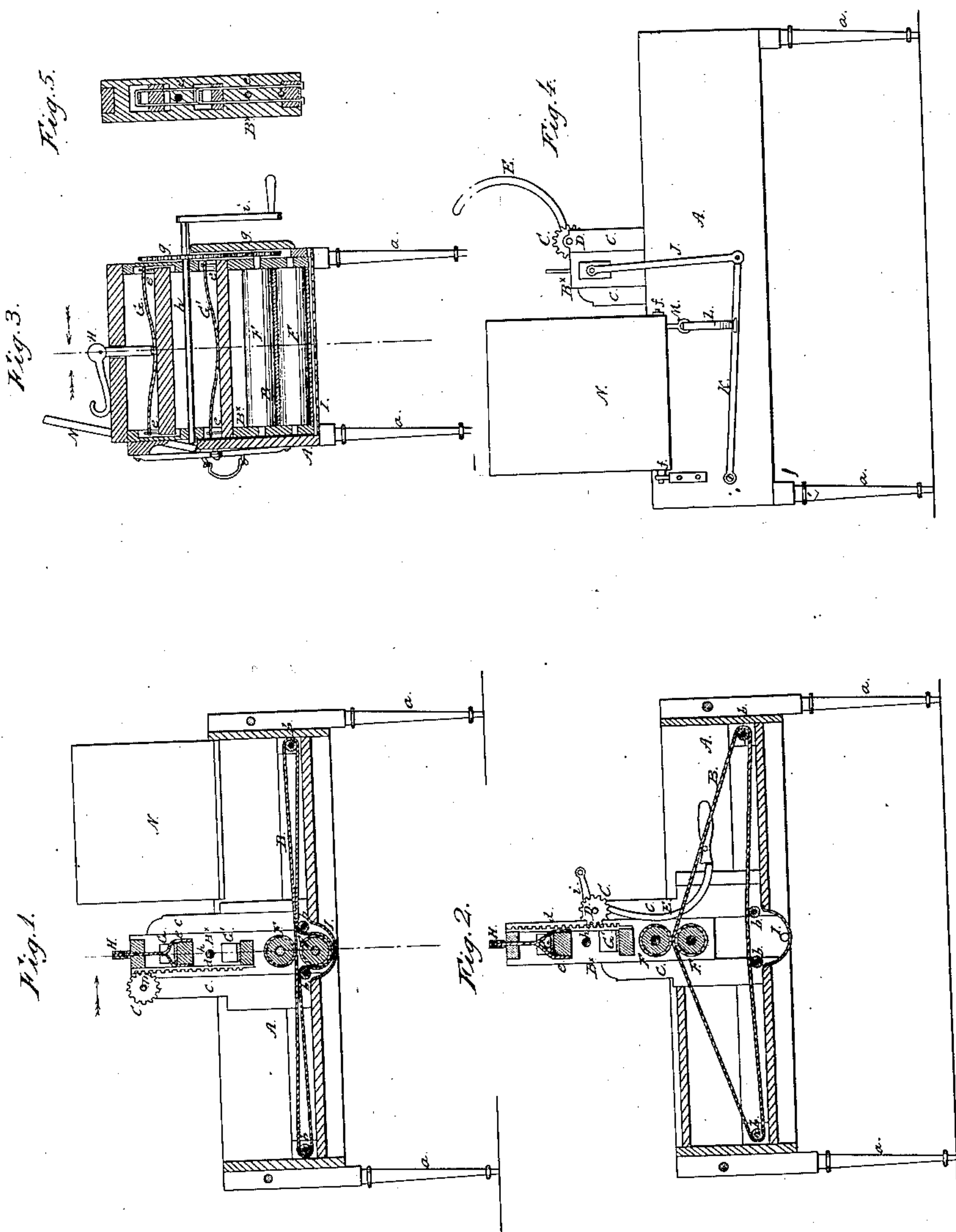


E. Springer,

Washing Machine,

Patented Oct. 10, 1865.

N^o 50,401.



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UNITED STATES PATENT OFFICE.

EZRA SPRINGER, OF DAVIS, ILLINOIS.

WASHING AND WRINGING MACHINE.

Specification forming part of Letters Patent No. 50,401, dated October 10, 1865.

To all whom it may concern.

Be it known that I, EZRA SPRINGER, of Davis, in the county of Stephenson and State of Illinois, have invented a new and Improved Combined Washing and Wringing Machine; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figures 1 and 2 are longitudinal vertical sections of my invention, taken in the line *xx*, Fig. 3; Fig. 3, a transverse vertical section of the same, taken in the line *yy*, Fig. 1; Fig. 4, a side view of the same; Fig. 5, a side sectional view of a portion of the same, taken in the line *zz*, Fig. 3.

Similar letters of reference indicate corresponding parts.

This invention consists in a novel arrangement of pressure-rollers, an endless apron with an adjustable roller-frame, and hinged bed, as hereinafter fully shown and described, whereby an exceedingly simple and useful machine for the purpose specified is obtained.

A represents a rectangular suds-box, which is supported at a proper height on legs *a*, and has an endless apron, B, fitted within it and around rollers *b*, as shown clearly in Figs. 1 and 2.

B^{*} is a frame which is fitted vertically and transversely in the suds-box A, between guides *c*, attached to the inner surfaces of the sides thereof. This frame B has two racks, *d d*, attached to it, into which pinions C C on a shaft, D, gear, said shaft having a lever, E, attached to it, by actuating which the pinions C C are turned and the frame B raised or lowered. In this frame B^{*} there are placed two horizontal pressure-rollers, F F, one over the other in the same axial plane. These rollers may be elastic—constructed of india-rubber, like those used in wringing-machines—and the pressure is given these rollers by means of two springs, G G', both of which are connected with the lower roller F, by wire stirrups *e*, as shown in Fig. 5. The upper spring, G, is made to act upon the lower roller F by means of an eccentric, H, on the top of frame B^{*}. The lower spring, G', always acts upon the lower roller, having a tendency to draw it up in contact with the upper roller.

The endless apron B passes between the

pressure rollers F F and underneath the lower roller F, a recess or chamber, I, being made at the bottom of the suds-box to receive the lower roller F, when the frame B^{*} is lowered. (See Fig. 1.) This chamber I admits of a comparatively small quantity of suds being used during the washing operation.

The frame B^{*} is connected at one side by a rod, J, with a lever, K, at one side of the suds-box A, and said lever is connected by a rod, L, with an arm, M, projecting from a bed, N, which is attached by hinges *f* to the upper part of the suds-box, at one side of the same.

The washing operation is performed when the frame B^{*} is lowered, as shown in Fig. 1, the lower spring G', only acting upon the lower roller F, and the clothes passed back and forth between the two rollers F F on the endless apron B, said rollers being operated by gears *g* from a shaft, *h*, having a crank, *i*, at one end of it. During the washing operation the bed N is raised to nearly a vertical position.

In order to wring the clothes the frame B^{*} is raised by drawing down the lever E, and the rollers F F are thereby elevated and the bed N adjusted to a horizontal position over the suds-box, in consequence of being connected to the frame B^{*}, as described, said bed serving as a platform to receive the clothes as they pass between the rollers F F, the upper spring, G, by turning the eccentric H, being made to act upon the lower roller F.

The whole arrangement is extremely simple and efficient, and may be constructed at a moderate cost.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The adjustable roller-frame B^{*}, provided with two springs, G G', arranged in such a manner that one or both may be made to act upon the lower or adjustable roller F, as required.

2. The chamber I at the bottom of the suds-box A, when used in connection with the roller-frame B^{*}, substantially as and for the purpose specified.

3. The bed N, connected with the adjustable frame B^{*} in the manner as shown, or in any equivalent way, so that it will be adjusted automatically by the movement of said frame, substantially as described.

EZRA SPRINGER.

Witnesses:

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