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G. V. SHIPP.

Washing-Machine.

No. 227,311. **Patented May 4, 1880.**

Fig. 1.

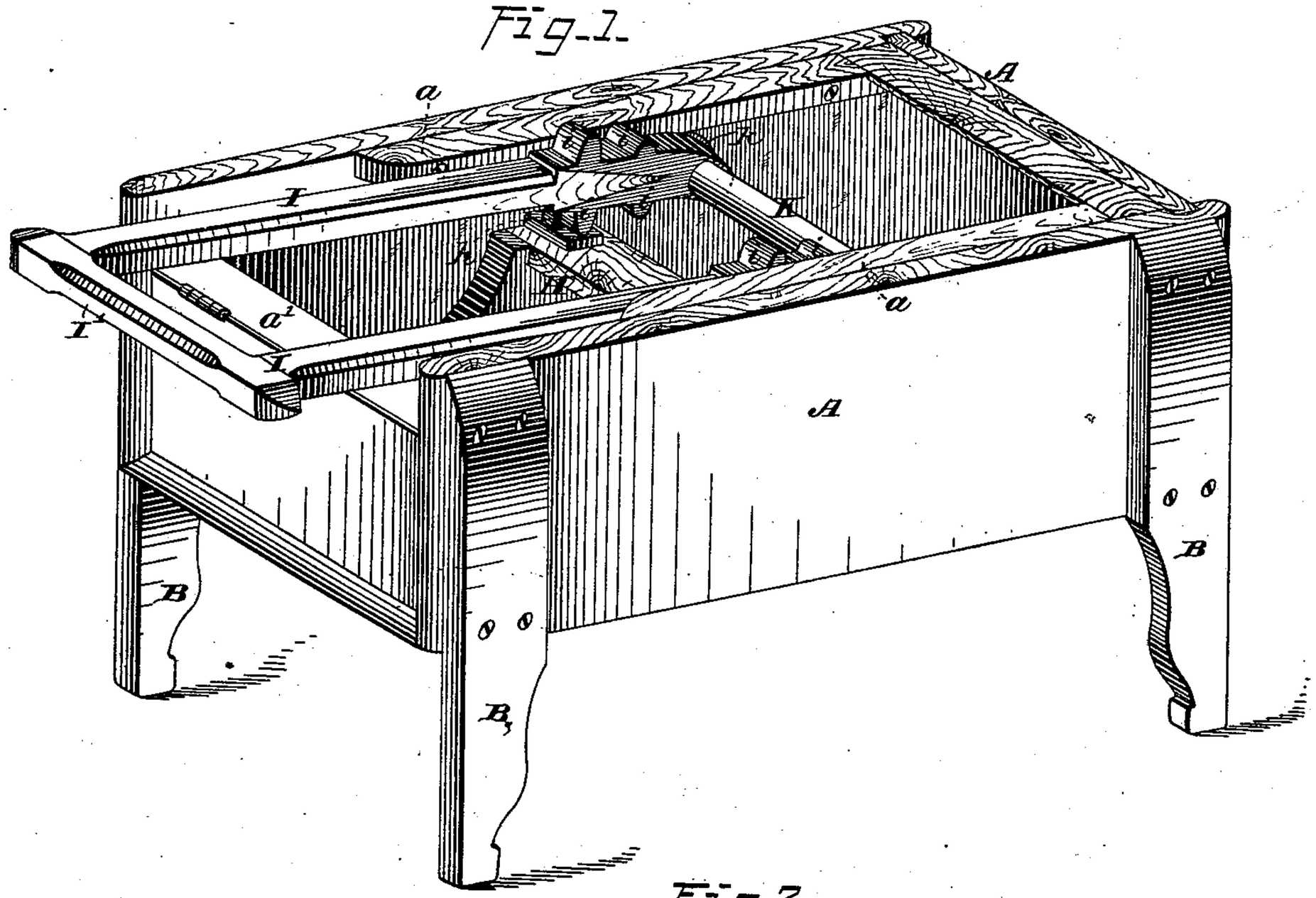
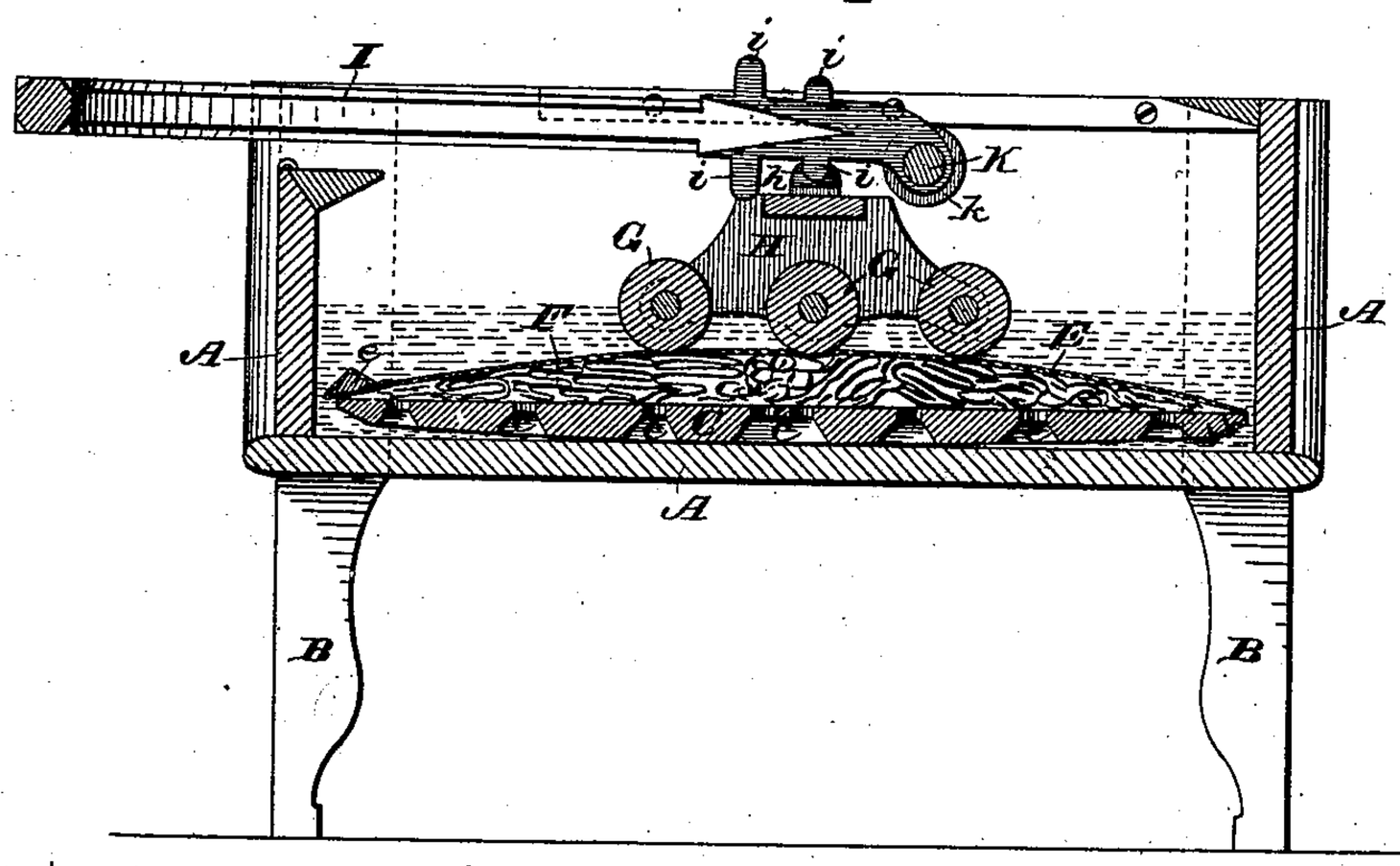


Fig. 2.



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Geo. S. Prindle, his Atty

3 Sheets—Sheet 2.

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Fig. 3.

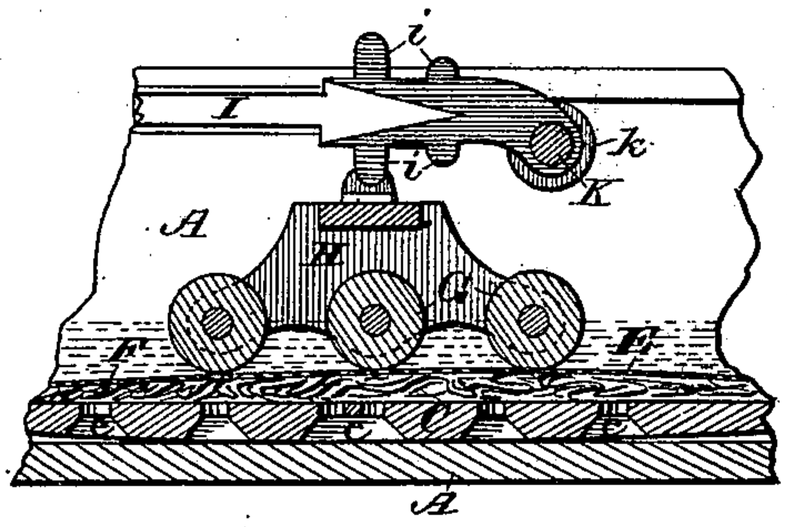

Fig. 4.

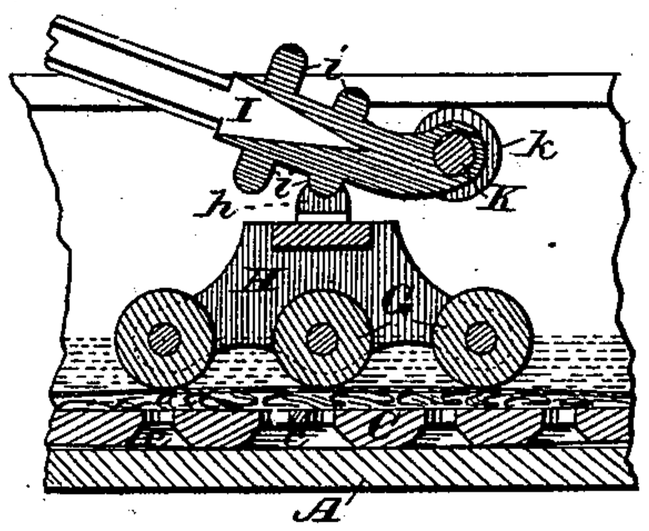

Fig. 5.

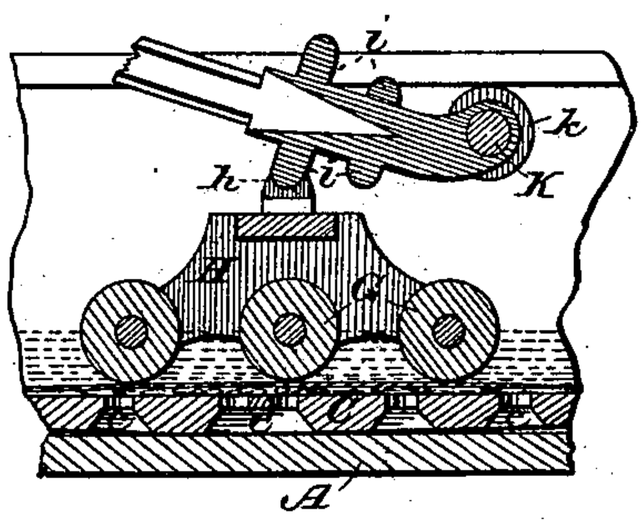

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Fig. 6.

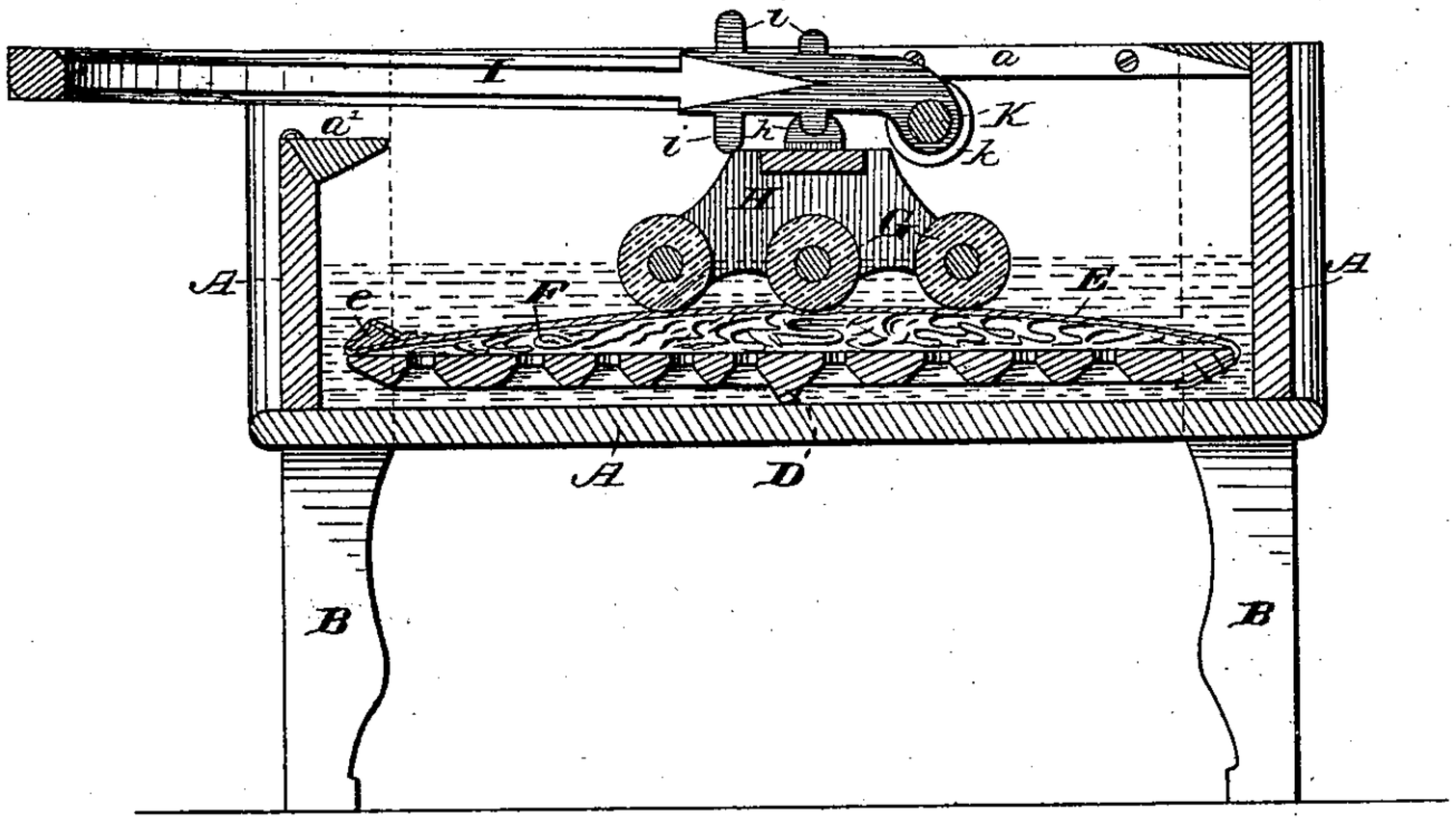
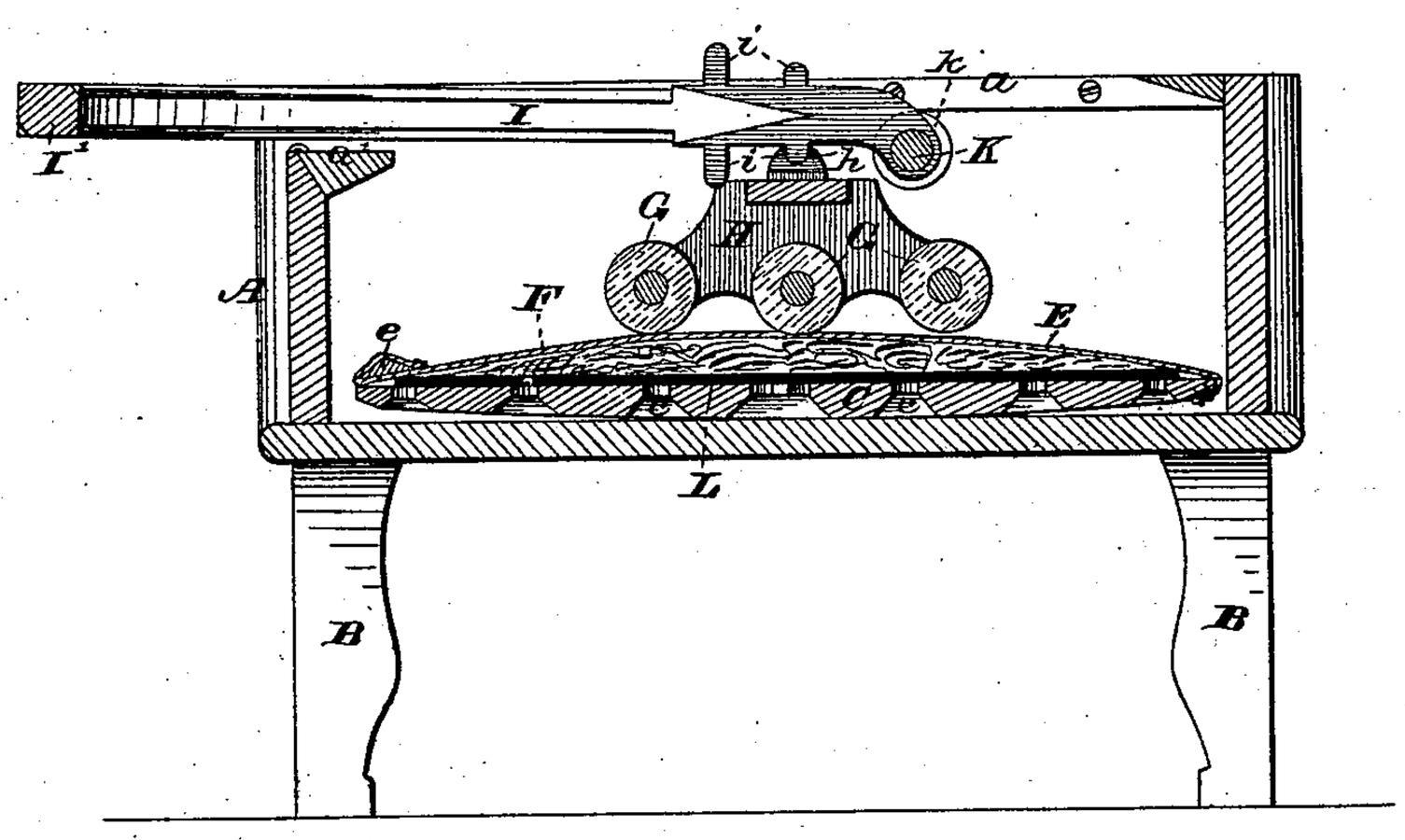


Fig. 7.



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UNITED STATES PATENT OFFICE.

GUSTAVUS V. SHIPP, OF SOCIAL CIRCLE, GEORGIA.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 227,311, dated May 4, 1880.

Application filed October 15, 1879.

To all whom it may concern:

Be it known that I, GUSTAVUS V. SHIPP, of Social Circle, in the county of Walton, and in the State of Georgia, have invented certain new and useful Improvements in Washing-Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a perspective view of my improved device as arranged for use. Fig. 2 is a vertical section of the same upon a central longitudinal line. Figs. 3, 4, and 5 are like views of said device as arranged for different thicknesses of clothing. Fig. 6 is a central longitudinal section of said device with its bearing-board supported upon a central pivotal bearing, and Fig. 7 is a like view of the same when arranged for use as a clothes-wringer.

Letters of like name and kind refer to like parts in each of the figures.

The design of my invention is to enable soiled clothing to be easily and quickly cleansed without wear or injury to the fabric; to which end it consists, principally, in a washing-machine in which is combined with a reservoir for containing water a perforated support for sustaining soiled clothing, a flexible apron attached to said perforated support for covering said clothing, and a rubber of rollers capable of being moved over said apron and of compressing the said clothing beneath the same, substantially as and for the purpose hereinafter specified.

It consists, further, in a washing-machine having a perforated support for soiled clothing which is capable of oscillation upon an axial central bearing, substantially as and for the purpose hereinafter set forth.

It consists, further, in the means employed for giving to the pressure or washing rollers a variable pressure and a movement over the soiled clothing, substantially as and for the purpose hereinafter specified.

It consists, further, in the means employed for varying the height of the washing or pressure rollers, substantially as and for the purpose hereinafter shown.

It consists, finally, in the device as a whole, its several parts being combined to operate in the manner and for the purpose substantially as hereinafter set forth.

In the annexed drawings, A represents a rectangular reservoir, having any desired capacity, supported upon or by means of four legs, B, and having its upper side open except where a flange, *a*, extends horizontally inward at one end and along about two-thirds the length of each side, as shown in Fig. 1.

The end of the reservoir A opposite to the end provided with the flange *a* is reduced somewhat in height, and to its upper edge is hinged a strip, *a'*, that has its lower or inner side beveled, so that when said strip is turned inward to a horizontal position its said lower side will incline upward and toward the center of said reservoir and prevent water from splashing over said end.

Within the reservoir A is placed a false bottom, C, which loosely fills the space horizontally, is provided with perforations *c* over its entire surface, which are enlarged from their upper to their lower ends, and at each corner is cut away, so as to permit of the insertion of the hand of the operator when it is necessary to remove said bottom.

The false bottom C is intended to have a rocking movement longitudinally, and is either cut away upon its lower side, as shown in Figs. 2 and 7, so as to have a curved lower surface, or is supported at its longitudinal center upon a rib of rubber, D, which is secured to and extends across the real bottom of said reservoir, and forms a fulcrum for and upon which said false bottom oscillates, as seen in Fig. 6.

To one end of the false bottom C is secured one end of a strip of cotton or other fabric, E, which corresponds in width and length to the like dimensions of said part, and has attached to its free end a bar, *e*, of such size and length as to hold said cloth in position when stretched out. Said cloth or apron is to be used as a covering for soiled clothing F, which is first placed upon the false bottom C and said apron E then stretched over the same, as seen in Figs. 2 to 7.

The clothing F is cleansed by a rolling pressure, which is secured by means of two or more rollers, G, that are journaled within a frame, H, and are moved back and forth over

the apron E, sufficient pressure being applied to said rollers to thoroughly squeeze the water from said clothing as they pass from end to end.

The rollers G (preferably wooden) have such length as to enable them to move freely between the side walls of the reservoir A, and are thus moved and are given the necessary downward pressure by means of two levers, I, that are connected together at one end by means of a cross-bar, I′, and at their opposite ends are journaled upon a shaft, K, which has a length nearly equal to the inside width of said reservoir, and upon each end outside of said levers has journaled a roller, *k*.

Upon each side of each lever I, near the shaft K, are provided two half-round lugs, *i*, that have different elevations, and correspond to and fit within correspondingly-formed bearings *h*, that are secured to or upon the upper side of the frame H. The levers thus constructed are employed as shown in the drawings, the rollers *k* being contained beneath the flanges *a*, and one of each of the lugs *i* upon the lower side of each lever being placed within the contiguous bearing *h*, after which said levers are moved lengthwise of the reservoir, and with them the frame of rollers, the downward pressure given to the outer end of said levers governing the pressure of said rollers upon the clothing being cleansed.

The variations in height of the lugs *i* upon each side of the levers I enable the roller-frame to be operated upon a lesser or greater quantity of clothing without material variation in the height of the rear ends of the operating-levers; but in order that still greater variations may be made in the height of said roller-frame the journaled ends of said levers are curved, so that by reversing the position of the lever-frame the adjustments shown in Figs. 2 to 5 may be secured.

In use the water is pressed from the soiled clothing by each roller as it passes over the same and immediately returns to said clothing as the roller leaves it, the result being the removal of dirt by the movements of the water and without friction from the operating mechanism.

The apron prevents contact between the rollers and clothing, so that no injury can result to the finest fabric while being operated upon.

In consequence of the central bearing of the false bottom, the latter is caused to rock as the rollers pass to and fro, the result being that the water is forced upward through the clothing each time either end of said false bottom is tilted downward, and the operation of removing dirt from the former is thus hastened.

If desired, the roller-frame may be partly or wholly cased at its upper side, so as to prevent suds from flying outward, or for the same purpose a part or the whole of the upper side of the reservoir may be covered.

When it is desired to use the device for wringing clothing the water is removed from the reservoir, a sheet of rubber, L, about three-eighths of an inch in thickness, is placed upon the perforated bottom, and the wet clothing then placed upon said rubber and covered by the apron, as seen in Fig. 7, and the rollers moved back and forth and pressure applied, when all water will be pressed out of said clothing into the space beneath said perforated bottom.

For such use the rollers should be made of rubber; but as rubber rollers will answer as well as wooden rollers for use in washing clothing, but one set is absolutely necessary.

Having thus fully set forth the nature and merits of my invention, what I claim as new is—

1. A washing-machine in which is combined with a reservoir for containing water a perforated support for sustaining soiled clothing, a flexible apron attached to said bed for covering said clothing, and a rubber of rollers capable of being moved over said apron and of compressing the said clothing beneath the same, substantially as and for the purpose specified.

2. In combination with the frame H of the rollers G, having the bearings *h*, the levers I, provided with lugs *i*, the shaft K, having end rollers *k*, and the flanges *a* upon the inner upper side of the reservoir A, said parts being constructed to operate in the manner and for the purpose substantially as specified.

3. As a means for varying the height of the roller-frame H, and in combination with the same and with the flanges *a* of the reservoir A, the levers I, journaled upon the roller-shaft K, and provided upon opposite sides with lugs *i*, that have different heights, and are each adapted for engagement with the bearings *h*, substantially as and for the purpose shown.

4. The hereinbefore-described machine, in which are combined the reservoir A, provided with the flanges *a*, the perforated false bottom C, the apron E, the rollers G, secured within the frame H, that has bearings *h*, the levers I, provided with lugs *i*, the shaft K, and the rollers *k*, all combined to operate substantially as and for the purpose set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 29th day of September, 1879.

GUSTAVUS V. SHIPP.

Witnesses:
A. S. FLORENCE,
A. M. COLTON.