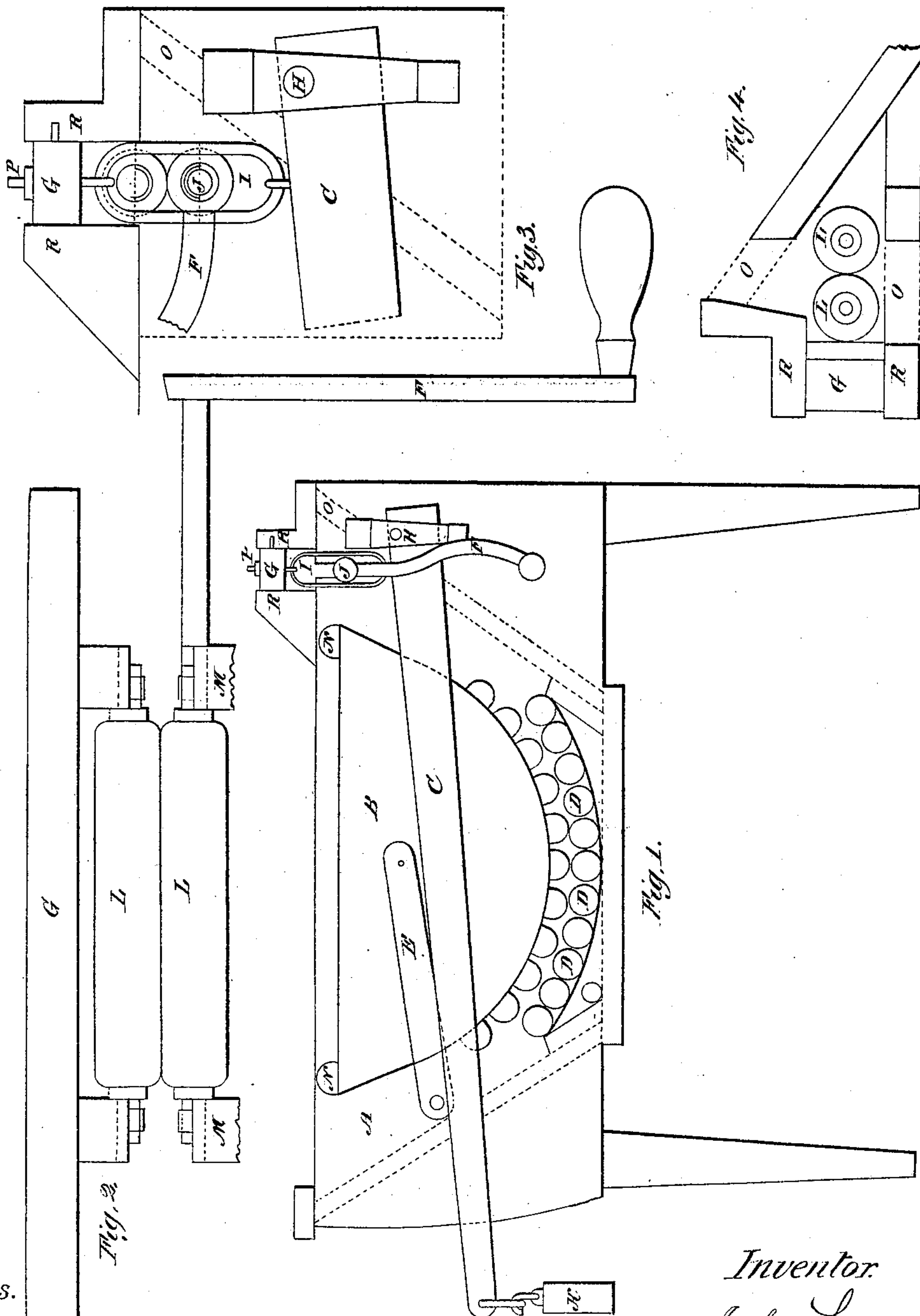


J. Lee,

Washing Machine,

N^o 37,452.

Patented Jan. 20, 1863.



Witnesses.

John A. Stewart.
John McFarland.

Inventor.
Joel Lee

UNITED STATES PATENT OFFICE.

JOEL LEE, OF GALESBURG, ILLINOIS.

IMPROVED WASHING AND WRINGING MACHINE.

Specification forming part of Letters Patent No. 37,452, dated January 20, 1863.

To all whom it may concern:

Be it known that I, JOEL LEE, of Galesburg, Knox county, and State of Illinois, have invented a new and useful Washing and Wringing Machine Combined; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a sectional view. Fig. 2 shows the rollers and roller-press. Fig. 3 is a side view of the lever and fulcrum, the link and its attachments. Fig. 4 is a view of the end of the roller and the apertures for feeding and discharging the clothes.

A represents the tub, B the rubber, C the lever, D D D the washing-rollers, E the oscillating arms, F the crank, G the wringing roller-press, H the lever-fulcrum, I the link, J end of shaft, K the weight, L L the wringing-rollers, M M the roller bearings, N N the rubber handles, O O apertures to receive and deliver the clothes, P P the nutted hooks, R R the guides. The tub is elevated on legs to a convenient height. A concave space is formed by a series of rollers near the bottom to receive the clothes. The rubber is convex, and its bottom is formed of a series of slats a sufficient distance apart to hold the clothes stationary with respect to itself while passing over the rollers for the purpose of avoiding friction. The rubber is connected with the tub by oscillating arms, both ends of which have a jointed attachment—one to the inside of the tub and the other to the center of the rubber—in order to prevent either a longitudinal or horizontal motion at the point of attachment, thus receiving an oscillating movement over the rollers, and also to afford convenience in raising it out of the tub, holding it out of the way while wringing, and then returning it to the tub. The wringing apparatus consists of two rollers, which may be made of any elastic substance, the lower one supported by the bearings M M, which are attached near one end of the tub. The press G, placed between the guides R R, rests on the journals of the upper roller, and is flexibly connected with the weighted lever by means of the nutted hook at one end and the

nutted hook and link at the other. One end of the lever is connected with the end of tub, forming their fulcrum. The link is used to obtain as nearly as possible a perpendicular pressure, without interfering with the shaft of the lower roller, which passes through it. The power may consist in a weight proper or in the enlarged construction of the long end of the lever.

When clothes are to be cleansed, the operator raises the rubber by the end nearest the wringer until the opposite end strikes the end of the tub, in which position the oscillating arms, having passed a perpendicular, prevent it from falling back, and the drippings run into the tub, the clothes are laid on the rollers, the rubber is returned and grasped by both handles, which are alternately elevated and depressed, producing an oscillating movement of the clothes over the rollers, and, being accompanied with a pressure more or less according to the choice or strength of the operator, they are cleansed.

To use the wringing apparatus, raise the rubber as before and insert any portion of the garment or cloth to be wrung through the inner aperture between the rollers, which, on turning the crank, will be delivered through the outer aperture into the vessel set under it. The end walls of the apertures prevent the clothes from getting beyond the ends of the rollers. As each lever is independent of the other in its action, they will each be elevated or depressed more or less, according to the quantity of clothes passing through that portion of the rollers next to it, or be alike acted upon if the quantity of the clothes is uniform from one end of the rollers to the other. The upper roller and the press rise and fall with the levers, the guides receiving a perpendicular pressure. When the lever-power becomes weakened by the wearing of the bearings, it is restored by turning the nut on the nutted hooks.

It will be seen by a careful consideration of the foregoing description of my machine that, being furnished with weighted levers, which act with equal force upon the clothes, whether the quantity passing through the rollers be more or less, that the rollers are not strained by large quantities, and the washing appa-

ratus being so constructed that the clothes are cleansed by a rolling and squeezing operation, thus avoiding wear and tear by friction.

What I claim as my invention, and desire to secure by Letters Patent, is as follows:

The combination of oscillating arms E with the rubber B, the rollers L, the link I, and

weighted levers U, all arranged substantially as and for the purposes specified.

JOEL LEE.

Witnesses:

JOHN C. STEWART,
JOHN MCFARLAND.