J. Johnson,

Mangle,

No. 47,152. Patented Apr. 4. 1865.

Fig: 1

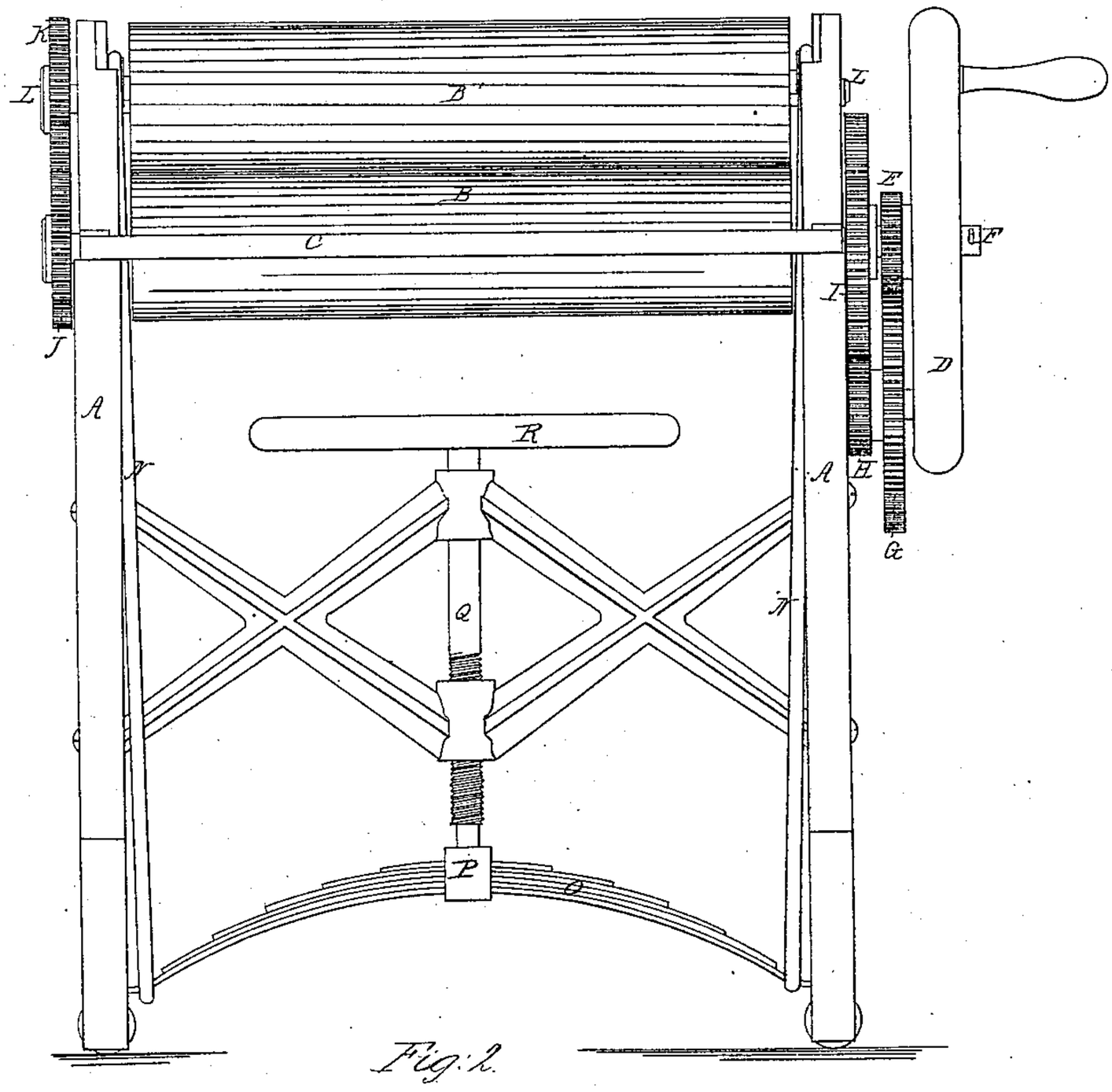
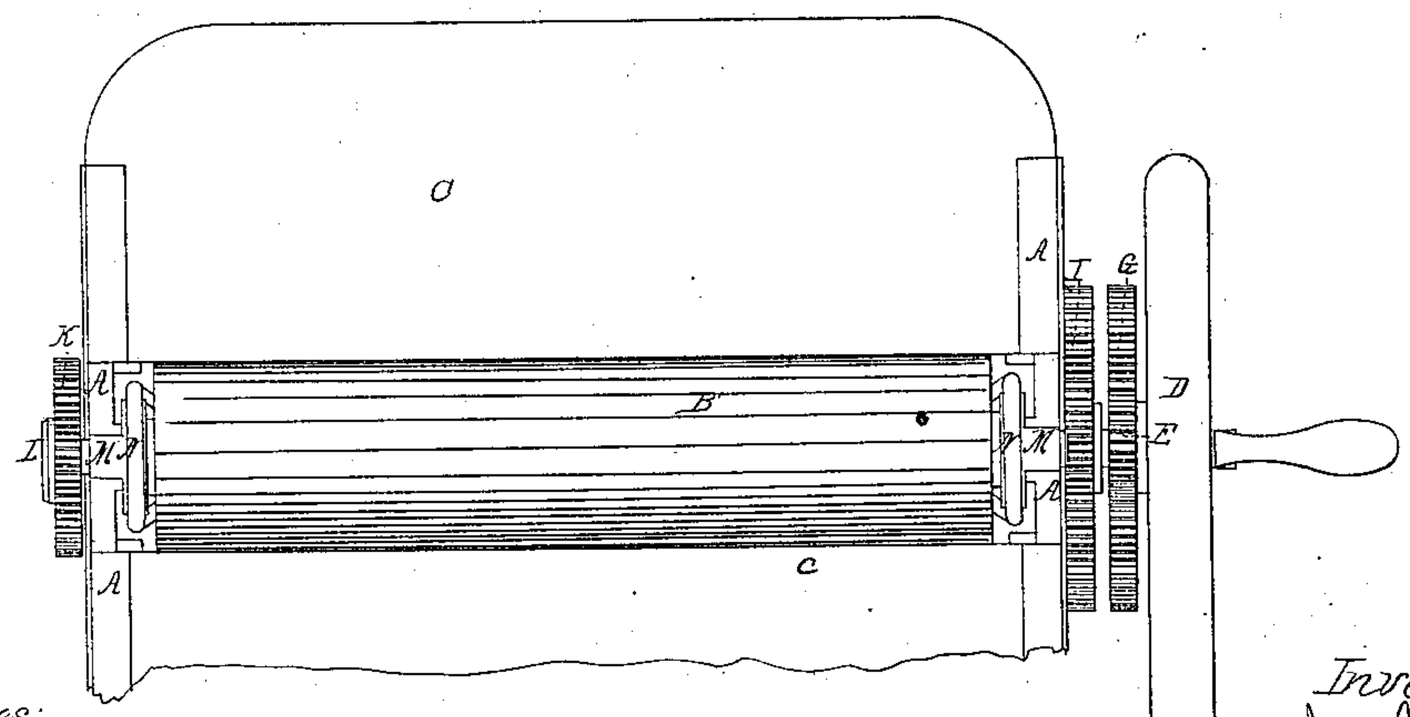


Fig: 2.



Witnesses:
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UNITED STATES PATENT OFFICE.

JOSEE JOHNSON, OF NEW YORK, ASSIGNOR TO JOHN WARD, JR., OF BROOKLYN, N. Y.

IMPROVED MANGLE.

Specification forming part of Letters Patent No. **47,152**, dated April 4, 1865; antedated March 30, 1865.

To all whom it may concern:

Be it known that I, JOSEE JOHNSON, of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Mangles; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My invention consists in a certain combination and arrangement of a longitudinal spring and connections with the rollers and frame of a mangle, in the manner and for the purpose hereinafter more fully described.

In the drawings, Figure 1 is a side view of the mangle with my improvements attached. Fig. 2 is a top view of the same with part of one leaf or apron removed.

A are the side pieces of the frame-work of the mangle.

B and B′ are the rollers.

C are the aprons.

D is the crank-wheel, by which motion is imparted to the rollers.

E is a cog-wheel firmly attached to the crank-wheel D, and which, in connection with said crank-wheel, revolves loosely upon the shaft F.

G is a cog-wheel which, in connection with the cog-wheel H, to which it is securely fastened, revolves upon a small shaft which is secured to the side A of the frame.

By the revolution of the crank-wheel D motion by means of the cog-wheel E is imparted to the cog-wheel G, which in turn, by means of the cog-wheel H, to which it is attached, imparts motion to the cog-wheel I, which is attached to one end of the shaft F, which carries the lower roller, B. To the other end of the shaft F of the said lower roller, B, is attached a cog-wheel, J, which works into a cog-wheel, K, attached to the end of the shaft L, which carries the upper roller, B′, and gives it an equal motion with the roller B, but in an opposite direction. The shaft F of the roller B revolves in a slot of suitable depth cut vertically from the top of the side pieces, A, of the frame. The shaft L of the upper roller, B′, revolves within the same slots, but the roller is supported entirely by resting upon the roller B. Upon the ends of the shaft L are placed blocks or bearings M, upon which are hung the links N, which support or carry the half-elliptic spring O. Upon the upper side of the band P, which confines the leaves of the spring O, there is a small indentation, into which the end of the screw Q fits. The sides of the frame, A, may be constructed with vertical grooves or slots, in which the ends of the spring O may be received and guided.

R is a wheel, by which the screw Q is operated. The screw Q is supported in cross-bars or truss-work securely attached to the sides A of the frame, as represented. When it is desired that a greater pressure should be given by the mangle, by turning down the screw Q a pressure is exerted upon the spring O, which pressure, by means of the links N, is transmitted to the roller B′, and takes effect upon whatsoever article is passing between the rollers B and B′.

I can substitute two rollers in place of the one shown at B, or can substitute two rollers in place of the one shown at B′. In the former case it would be necessary simply to place the two near together, and let the upper roller rest on both in the obvious manner.

In case of two upper-rollers being employed, the bearings must be extended across so as to form bearings for the two or separate bearings, for the two may be connected together by any suitable means, as by a lever extending across; or, if preferred, separate connections may extend up from the ends of the spring O to each roller.

Among the advantages gained by my invention are these: that the pressure upon any article passing between the rollers can be easily, quickly, and effectually regulated; that as the spring becomes set it may be followed by the screw, and its tension maintained or increased to any extent which may be necessary; that the spring O can rock, to allow one end of the roller B′ to rise higher than the other end, when necessary, and will still maintain a uniform pressure on both ends, and that the mechanism by which this is accomplished, being placed beneath the mangle, is entirely out of the way and occupies no additional space.

I claim—

The combination and arrangement of the screw Q, the spring O, and the links N with the rollers B′ and B and the frame A, substantially as and for the purpose set forth.

JOSEE JOHNSON.

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