

D. G. BEERS.
Clothes-Wringer.

No. 196,777.

Patented Nov. 6, 1877.

Fig: 1.

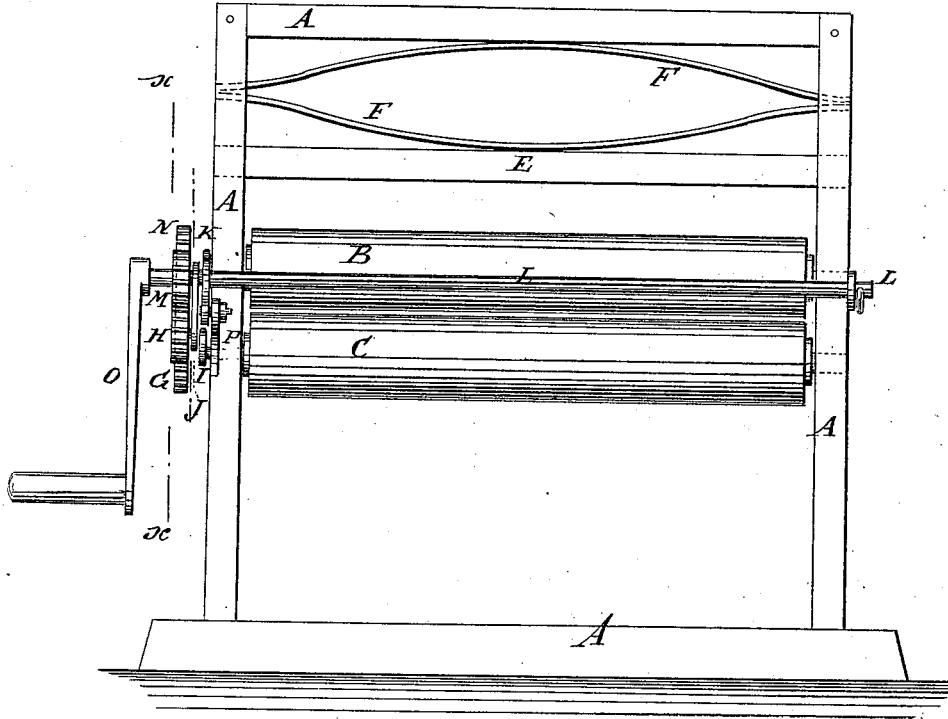


Fig: 2.

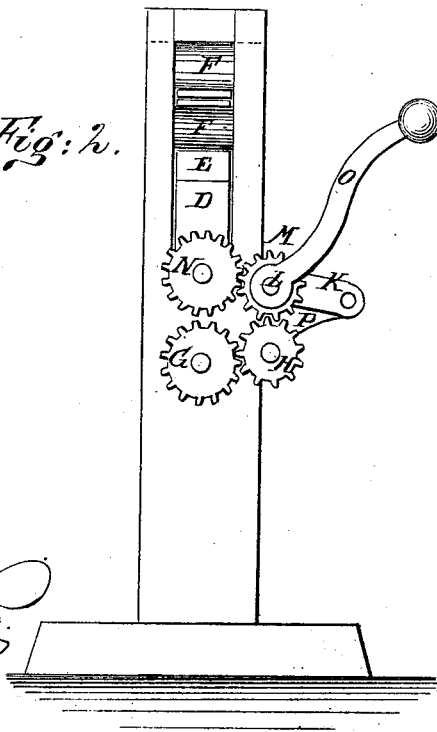
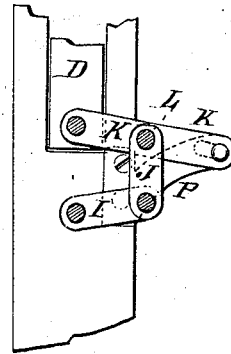


Fig: 3.



WITNESSES:

Chas. Nida.
A. F. Terry

INVENTOR:

D. G. Beers.

BY

Mumford
ATTORNEYS.

UNITED STATES PATENT OFFICE.

DANIEL G. BEERS, OF SANDY HOOK, CONNECTICUT.

IMPROVEMENT IN CLOTHES-WRINGERS.

Specification forming part of Letters Patent No. **196,777**, dated November 6, 1877; application filed May 28, 1877.

To all whom it may concern:

Be it known that I, DANIEL GLOVER BEERS, of Sandy Hook, county of Fairfield, and State of Connecticut, have invented a new and useful Improvement in Clothes-Wringers, of which the following is a specification:

Figure 1 is a side view of a clothes-wringer to which my improvement has been applied. Fig. 2 is an end view of the same. Fig. 3 is a detail section taken through the line *x x*, Fig. 1, to show the coupling.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish clothes-wringers which shall be so constructed as to allow the rollers to spread while operating upon large or thick fabrics without throwing the gear-wheels out of perfect working mesh.

The invention consists in the combination of the four gear-wheels, the coupling-bars, the rod, and the crank with each other, with the journals of the two rollers, and with the frame of a wringer, as hereinafter fully described.

In the drawing, A represents the frame of the wringer. B and C represent rubber rollers, constructed in the usual way. The journals of the lower roller C revolve in stationary bearings in the side bars of the frame A. The journals of the upper roller, B, revolve in movable bearings D, that slide up and down in vertical slots in the upper parts of the side bars of the frame A. E is a cross-bar, the ends of which enter the slots of the side bars of the frame A and rest upon the sliding bearings D. F is an elliptic spring interposed between the cross-bar E and the top bar of the frame A, to give the requisite pressure to the clothes, and which is kept in place by having its ends inserted in the slots of the side bars of said frame A. To the journal of the lower or stationary roller C is attached a gear-wheel, G, the teeth of which mesh into the teeth of the gear-wheel H. The gear-wheel H is pivoted to the ends of two bars, I J. The other

end of the bar I is pivoted to the journal of the roller C, and the other end of the bar J is pivoted to the bar K by the rod L, to which the gear-wheel M is attached. The teeth of the gear-wheel M mesh into the teeth of the gear-wheel H, and also into the teeth of the gear-wheel N, attached to the journal of the movable roller B. The rod L passes across the wringer, and its farther end revolves in a bearing attached to the side bar of the frame A. To the near end of the rod L is attached the crank O, by which the machine is operated. By this construction the bars I J K keep the gear-wheels G H M N, that mesh into each other, always at the same distance apart, and, consequently, fully in mesh, whatever be the distance apart of the rollers B C and of the gear-wheels G N, attached to them. The bar K is extended beyond the rod L, and its outer end is pivoted to the end of the bar or arm P, rigidly attached to the standard of the frame A, one or the other of the said bars K P being slotted to give the bar K the necessary play as the roller B moves up and down.

I am aware that it is not new to connect the gear-wheels of rolls by pinions on jointed bars to allow the rolls to rise without getting out of gear; but I extend the bar K and provide stationary piece P, one of which is also slotted, to hold said bars and the wheels M H in position. Without this improvement, the friction will only keep the gear-wheels in position as long as the rolls are in contact; hence

What I claim is—

In a clothes-wringer, the gear-wheels G N M H and bars I J, combined with the bar K, extended beyond its junction with the bar J and the stationary piece P, said parts K P being connected by slot and pin, as shown and described.

DANIEL GLOVER BEERS.

Witnesses:

BELLE S. BEERS,
MARY E. BEERS.