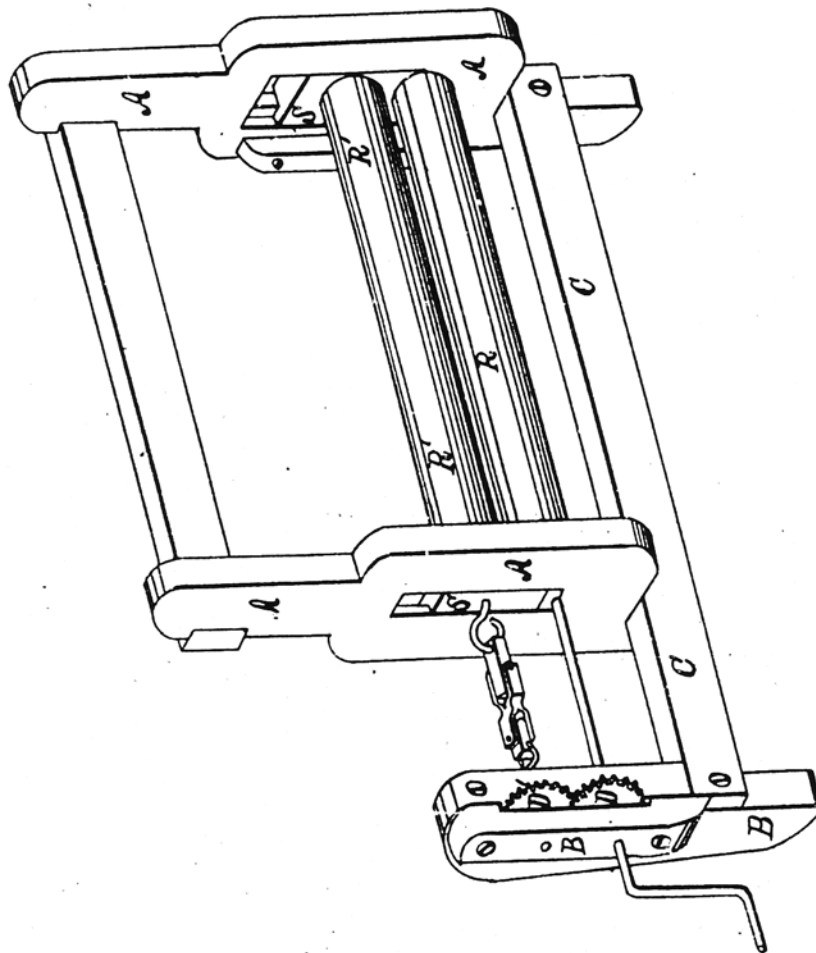


*D. D. Gitt,*  
*Clothes Wringer,*  
*No. 12,908, Patented May 24, 1864*



*Witnesses.*

*L. Stone*  
*for L. Combs*

*Inventor*  
*D. D. Gitt*  
*his atty.*

# UNITED STATES PATENT OFFICE.

DANIEL D. GITT, OF ARENDSVILLE, PENNSYLVANIA, ASSIGNOR TO  
METROPOLITAN WASHING MACHINE COMPANY OF CONNECTICUT.

## IMPROVED CLOTHES-WRINGER.

Specification forming part of Letters Patent No. 42,908, dated May 24, 1864.

*To all whom it may concern:*

Be it known that I, DANIEL D. GITT, of Arendtsville, in the county of Adams and State of Pennsylvania, have invented certain new and useful Improvements in Clothes-Wringers; and I hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, which represents a perspective view of a clothes-wringer embodying the principles of my invention, certain parts having no bearing on the invention subject-matter of this patent—such as the means of attachment, spring-regulating device for compressing the rollers, &c.—being omitted.

My invention relates to the method of driving the rolls of wringing and mangling machines and other kindred implements, and has for its object the transmission of movement of a crank or its equivalent to the rolls so as to allow of their moving within certain limits from and toward each other, according to the thickness of the material which is being passed through between them, without disturbing the action of the cog-wheels or gearing mechanism. This was heretofore effected by the peculiar construction of the cog-wheels, the teeth of which were so formed as to allow of the cogs of the one wheel to slide upon those of the other without coming out of working contact; but this it was found of difficult application to small wringers, in which the cog-wheels for the purpose of requisite speed are necessarily small. By my improvement I am enabled to produce the same result on wringers, whether small or large, at less cost of construction and without liability of getting out of order; and my invention consists, first, in the combination in wringing-machines of a rotary driving mechanism set in fixed bearings with rolls, the axles of either or both of which are held in movable bearings; second, in combining, in wringing-machines, with gear-wheels rotating in fixed bearings and rolls rotating in movable bearings, a linked or flexible connection; third, in the combination, in wringing-machines, of a pair of rolls with fixed gear-wheels when one of the rolls rotates in fixed bearings and is rigidly connected with its corresponding gear-wheel, while the other is rotating in movable bearings and is connected with its corresponding gear-wheel by

means of a flexible or link connection; fourth in the construction of the frame of a wringing-machine with a standard or standards for the gear mechanism, separate and independent from the standards of the rolls; fifth, in connecting, in wringing-machines, the shaft of the driver of the gear-wheels with the shaft of the corresponding roll by means of a universal joint.

To enable others to make and use my invention, I shall now proceed to describe the construction and operation of the same.

Referring to the drawings, A is the frame of my improved wringer. It is composed, like that of most wringers, of standards slotted to admit of the boxes or journal-blocks of the rolls and braced laterally to afford the requisite strength and rigidity. The frame is or may be provided, as usual, with the legs C, other means of attachment to the tub and with springs or screws or other devices for regulating the pressure between the two rolls. The latter, not pertaining to this my invention, are omitted in the drawings.

In addition to the main standards holding the rolls, as shown, there is a third standard, B, which is connected with roll-frame by means of cross-pieces or side braces, C, extending to the one side of the frame. This standard contains the bearings of the gear-wheels D D', and may be arranged to support the journals or axles on one or both sides of the wheels. In this instance the standard is shown composed of two internally-recessed uprights bolted or otherwise secured together, supporting the axles on both sides and inclosing the wheels for their better protection. The two wheels D and D' are thus arranged in fixed relation to each other. The former is mounted on a shaft which, being also the shaft of the lower roll, R, rests in fixed bearings in the two roll-standards, as well as in the wheel-standard. The latter, D', is mounted on a short shaft or axle, which is united with the axle or shaft of the roll R' by means of a universal joint or other flexible or linked connection. The ends of the shaft of the roller R are secured in blocks or bearings S, confined within slots in the standards A, and are capable of an up-and-down motion therein.

From the foregoing description of the parts the operation will be readily understood. Ro-

tary motion being imparted to the crank M, which may be attached to or form part of the shaft common to both cog-wheel D and roll R, the two cog-wheels, meshing into each other, will move with equal velocities. The roll R, being rigidly connected with the shaft of the wheel D, will necessarily partake of the same movement, and the roll R', being connected with the shaft of wheel D' by means of a universal joint, will rotate in perfect unison therewith, although its axis of revolution may change its position in relation to that of the wheel. I would observe that this contrivance is susceptible of many modifications in point of construction and arrangement of parts, without departure from the principle of my invention; but I have described and shown one mode of carrying it into effect, which I have found to answer the purpose it was designed for well, and,

Having now fully described my said invention, what I claim as my invention, and desire to secure by Letters Patent, is—

1. The method herein described of operating movable rolls of a wringing-machine from fixed gears by coupling either or both of the axles of the latter with the corresponding shafts of the former by means of a flexible connection, substantially as set forth.

2. The combination, in wringing-machines, of a rotary driving mechanism set in fixed

bearings with rolls, the axles of either or both of which are held in movable bearings, substantially as set forth.

3. Combining, in wringing-machines, with gear-wheels rotating in fixed bearings and rolls rotating in movable bearings, a linked or flexible connection, substantially as set forth.

4. The combination, in wringing-machines, of a pair of rolls with fixed gear-wheels, when one of the rolls rotates in fixed bearings and is rigidly connected with its corresponding gear-wheel, while the other is rotating in movable bearings and is connected with its corresponding gear-wheel by means of a flexible or link connection, substantially as set forth.

5. The construction of the frame of a wringing-machine with a standard or standards for the gear mechanism separate and independent from the standards of the rolls, substantially as set forth.

6. Connecting, in wringing-machines, the shaft of the driver of the gear-wheels with the shaft of the corresponding roll by means of a universal joint, substantially as set forth.

In testimony whereof I have signed my name to this specification before two subscribing witnesses.

DANL. D. GITT.

Witnesses:

A. POLLOK,

EDM. F. BROWN.