

W. D. Grimshaw,

Washing and Wringing Machine,

N<sup>o</sup> 36,687.

Patented Oct. 14, 1862.

Fig. 3.

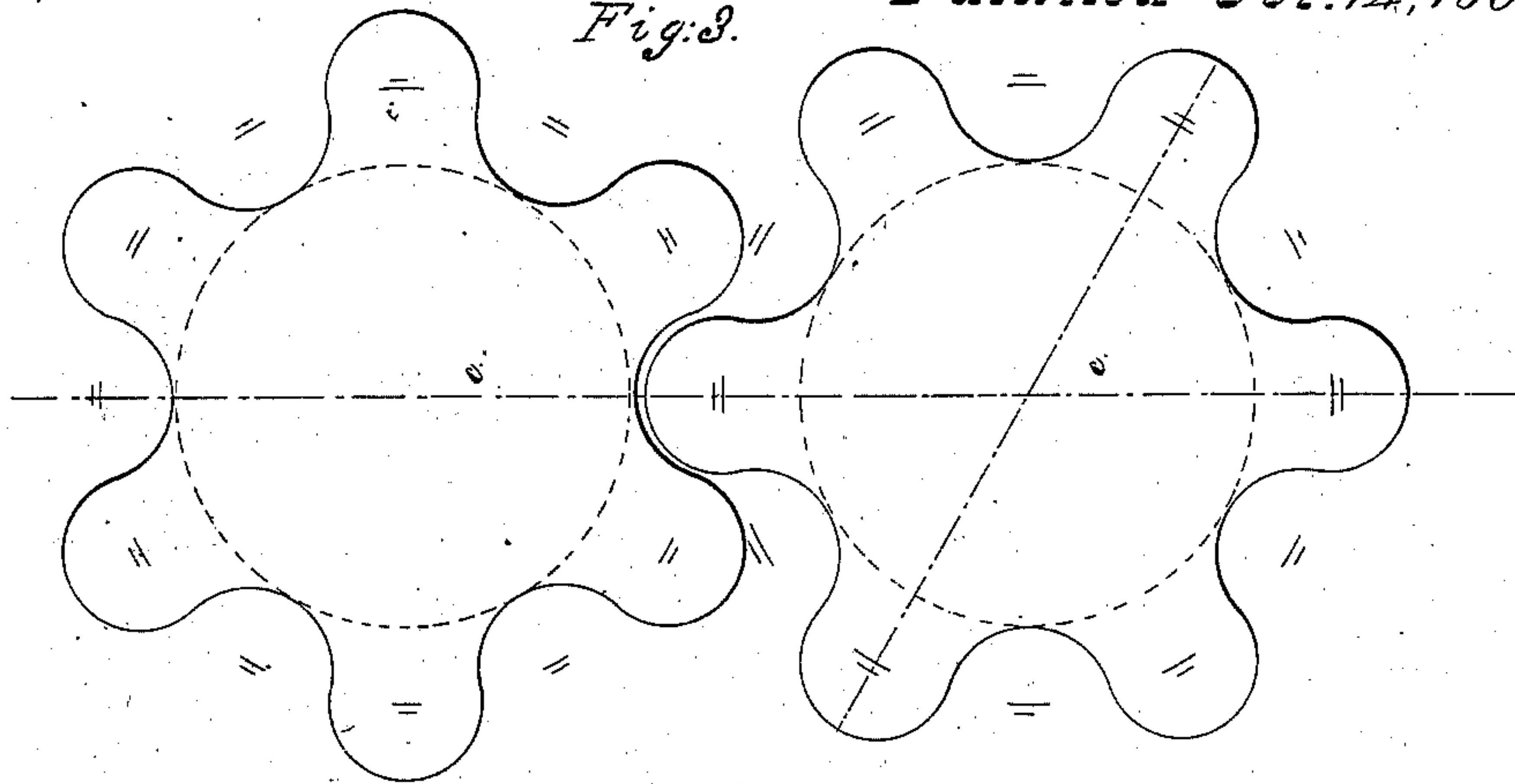


Fig. 1.

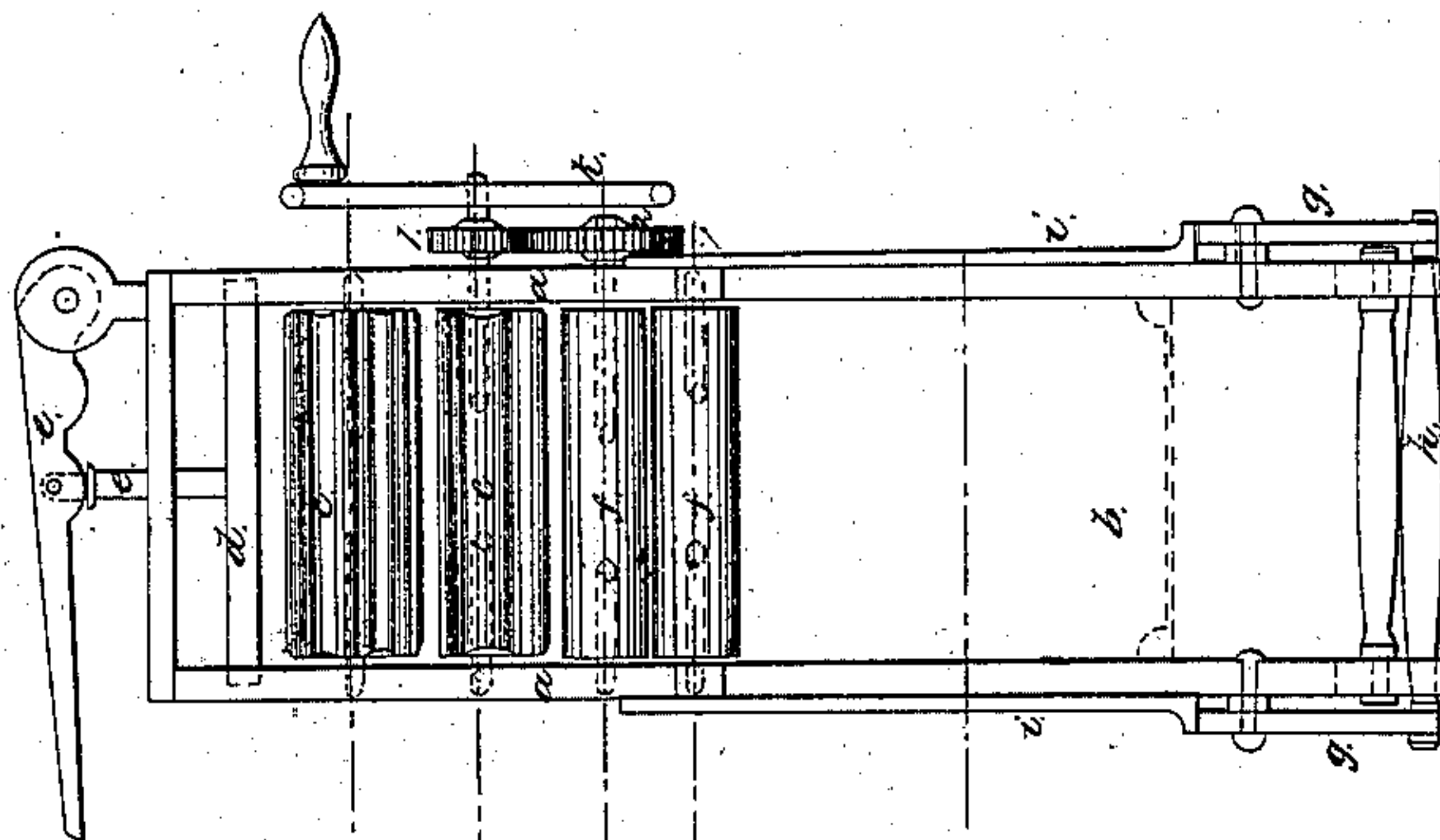
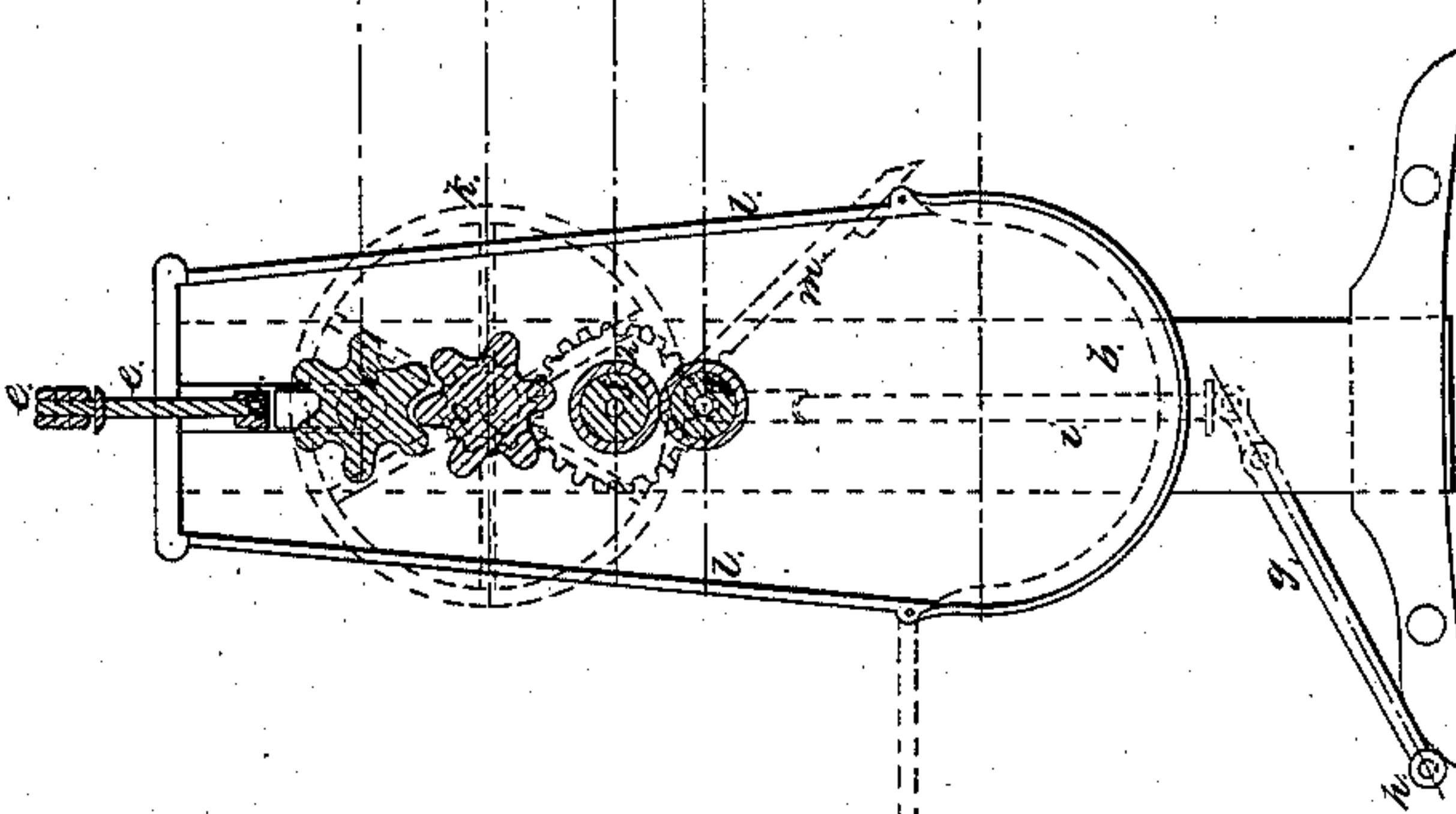


Fig. 2.



Witnesses:

Lemuel W. Perrell  
Geo. Geo. Harold  
" " "

Inventor:

William D. Grimshaw

# UNITED STATES PATENT OFFICE.

WILLIAM D. GRIMSHAW, OF NEWARK, NEW JERSEY, ASSIGNOR TO HIMSELF, AND CONRAD A. TEN EYCK, OF NEW YORK, N. Y.

## WASHING-MACHINE.

Specification forming part of Letters Patent No. 36,687, dated October 14, 1862.

*To all whom it may concern:*

Be it known that I, WILLIAM D. GRIMSHAW, of Newark, in the county of Essex and State of New Jersey, have invented, made, and applied to use a certain new and useful Improvement in Washing-Machines; and I do hereby declare that the following is a full, clear, and exact description of my said invention, reference being had to the annexed drawings, making part of this specification, wherein—

Figure 1 is a side view of my washing-machine as open. Fig. 2 is a vertical section of said machine, and Fig. 3 is a section of the washing-rollers in about full size.

Similar marks of reference denote the same parts.

In my machine I make use of a pair of grooved rollers that draw through and squeeze the clothes to be washed while attached to each other, so as to form a band, or to an apron provided for that purpose. The grooved or corrugated rollers bend, loosen, and soften both the fabric and the dirt, and when the clothes are thoroughly washed they are passed through another pair of rollers covered with cloth or elastic material, so as to squeeze the water out of the goods, leaving them as dry as possible.

In the drawings, *a a* are the sides of my machine, between which is the tub or receptacle *b*, for clothes and for the washing-water.

*c c* are a pair of grooved or corrugated rollers, the lower one being in fixed bearings, while the upper one is pressed toward the lower by means of the cross-bar *d*, lever *e*, and a weight or spring.

*f f* are my squeezing-rollers, covered with thick cloth or other elastic material. The top roller is fitted in fixed bearings, and the lower roller can be forced powerfully up toward it

by means of the side levers, *g g*, and cross foot-bar *h*, acting upon the slides *i i*, that carry the journals of the lower roller *f*. The fly-wheel *k* and crank are on the axle of the lower roller *c*, and a pinion, 1, gears to a wheel, 2, on the axle of the upper squeezing-roller *f*.

At the sides of the apparatus shutters *l l* are provided, the same being removable to give access to the clothes.

The endless line of clothes or an apron with the clothes attached passing through between the corrugated rollers *c c* is constantly drawn around or backward and forward by the movement of the rollers and fly-wheel, the clothes at the bottom passing through the water and suds in *b*, and the operation of the rollers and the dipping and agitation in the water effecting a thorough cleansing. When the clothes are to be squeezed dry, they are passed through between the rollers *f f*, the foot being applied to the bar *h*, and an inclined board introduced as at the dotted lines *m* receives the clothes and passes them away to a basket or other receptacle.

The shutters *l l* may serve as tables for arranging the clothes when laid horizontal, as at the dotted lines *n*.

What I claim, and desire to secure by Letters Patent, is—

The arrangement of the pairs of washing-rollers *c c* and squeezing-rollers *f f* in the manner specified, so that the power to revolve said rollers is applied to the two middle rollers, while the upper and lower rollers are yielding, for the purposes set forth.

In witness whereof I have hereunto set my signature this 5th day of June, 1861.

WILLIAM D. GRIMSHAW.

Witnesses:

LEMUEL W. SERRELL,  
THOS. GEO. HAROLD.