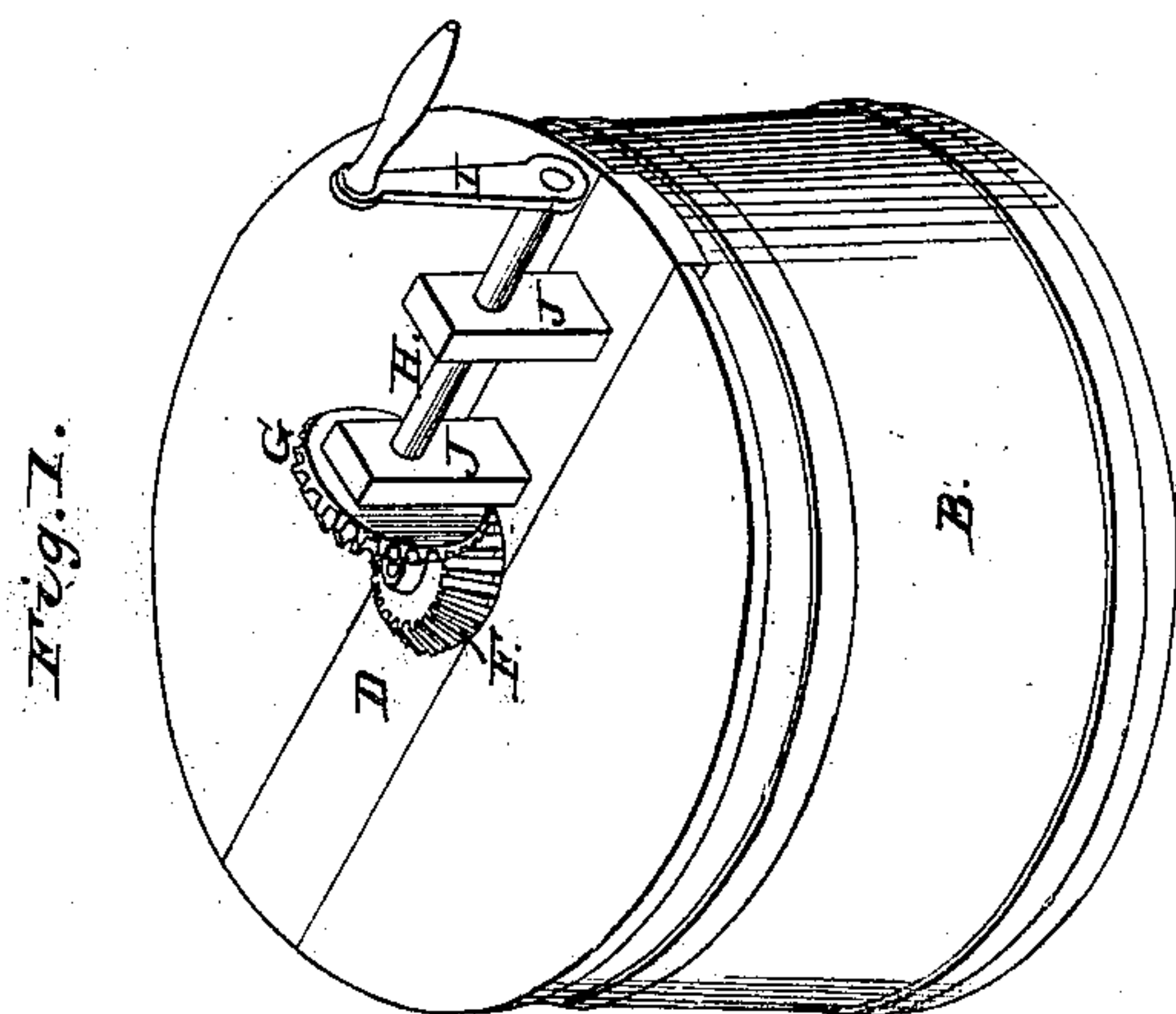
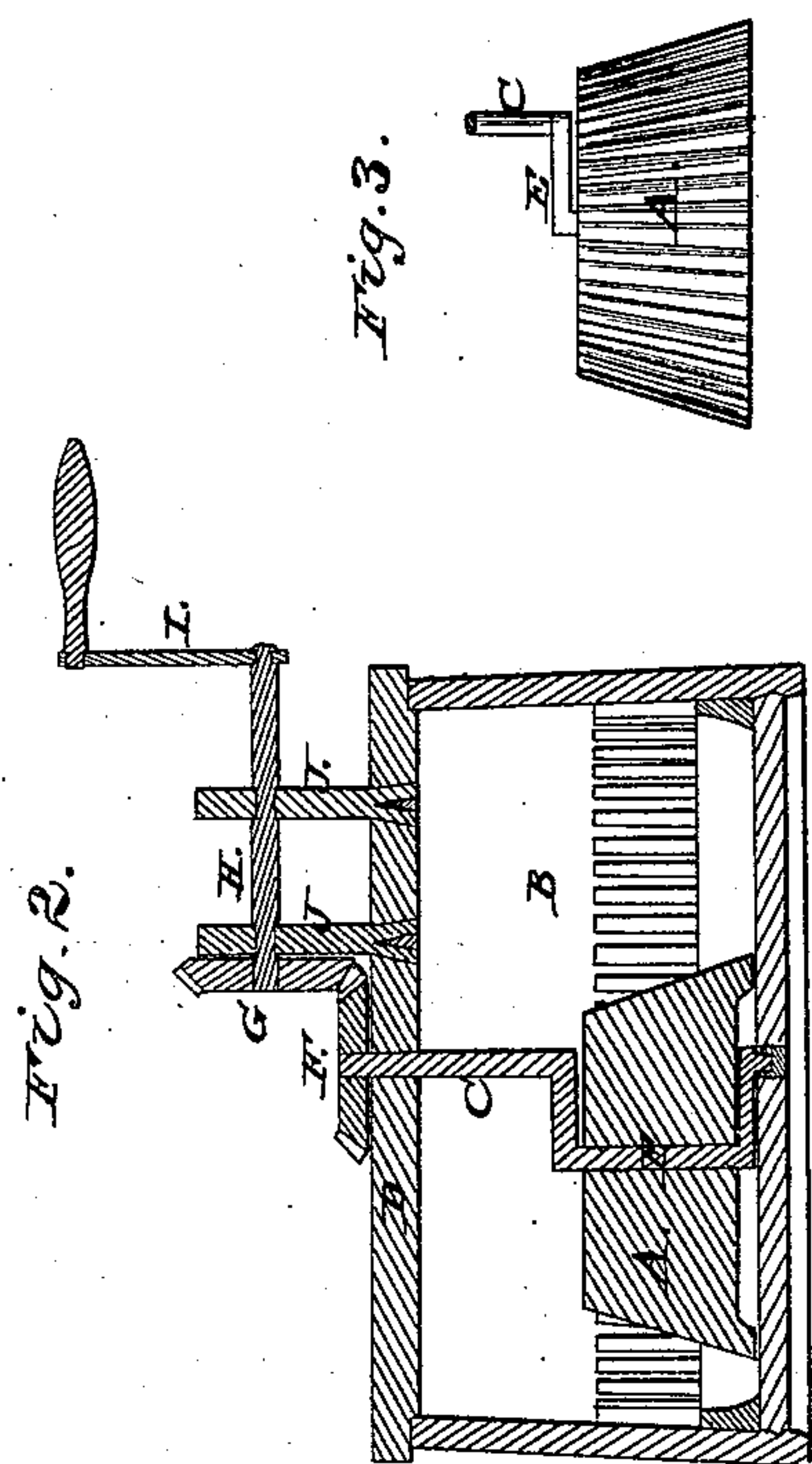


I. Avery,
Washing Machine
N^o 4,850. Patented Nov. 12, 1846.



UNITED STATES PATENT OFFICE.

IRA AVERY, OF TUNKHANNOCK, PENNSYLVANIA.

WASHING-MACHINE.

Specification of Letters Patent No. 4,850, dated November 12, 1846.

To all whom it may concern:

Be it known that I, IRA AVERY, of the borough of Tunkhannock, in the county of Wyoming and State of Pennsylvania, have
5 invented a new and Improved Washing-Machine or Rotary Fulling-Mill; and I do hereby declare the following to be a full, clear, and exact description of the construction and operation thereof, reference being
10 had to the accompanying drawings, in which—

Figure 1, is a perspective view; Fig. 2, is a vertical section, and Fig. 3 is an elevation of a part of the same detached.

15 My improved washing machine or rotary fulling mill, consists essentially of a conical fluted roller A, and a tub B, with fluted or smooth sides. The roller A, is secured to a crank E, on the vertical shaft C; the lower
20 end of the shaft C, works in a step in the center of the tub B, and the journal at its upper end, has its bearings in the cross piece D, let into and secured to the top of the tub. The crank E, is of such a size as to bring
25 the lower, or largest end of the roller A, within a short distance of the sides of the tub. There is a recess cut out of the bottom of the roller, for the lower radius of the crank to work in, for the purpose of bringing
30 the lower end of the periphery of the roller as near to the bottom of the tub as possible without rubbing.

F, is a bevel cog wheel on the top of the shaft C, geared to the bevel wheel G, on the
35 horizontal driving shaft H.

I, is a crank on the driving shaft. The

driving shaft H, has its bearings in the standards J, J, let into and secured to the cross-piece D.

The operation of my improved washing
40 machine, or rotary fulling mill, is as follows: The tub B, being supplied with soap and water, the clothes to be washed, or cloths to be fulled, are put into the same, around the roller A. Motion is then communicated
45 to the roller, which presses the clothing, or cloths, against the sides of the tub, at the same time imparting to them a continuous rolling motion, thus bringing every part
50 and portion of the same in contact with the fluted sides of the roller, between the roller and sides of the tub; which action produces a speedy cleansing of the clothing, or fulling of the cloths, without straining or friction.

The rolling motion imparted to the cloth-
55 ing, is caused by the conical form of the roller A, the lower part of the roller passing under and lifting the same, and the rotary motion of the roller upon its axle, turning and revolving the clothing.
60

Having thus fully described the construction and operation of my improved washing
65 machine, or rotary fulling mill, what I claim therein as new and desire to secure by Letters Patent, is—

The combination of the conical fluted roller A with the tub B, substantially in the manner and for the purpose herein set forth.

IRA AVERY.

Witnesses:

Z. C. ROBBINS,
J. M. THAYER.