

H. E. SMITH.
Clothes-Wringers.

No. 139,200.

Patented May 20, 1873.

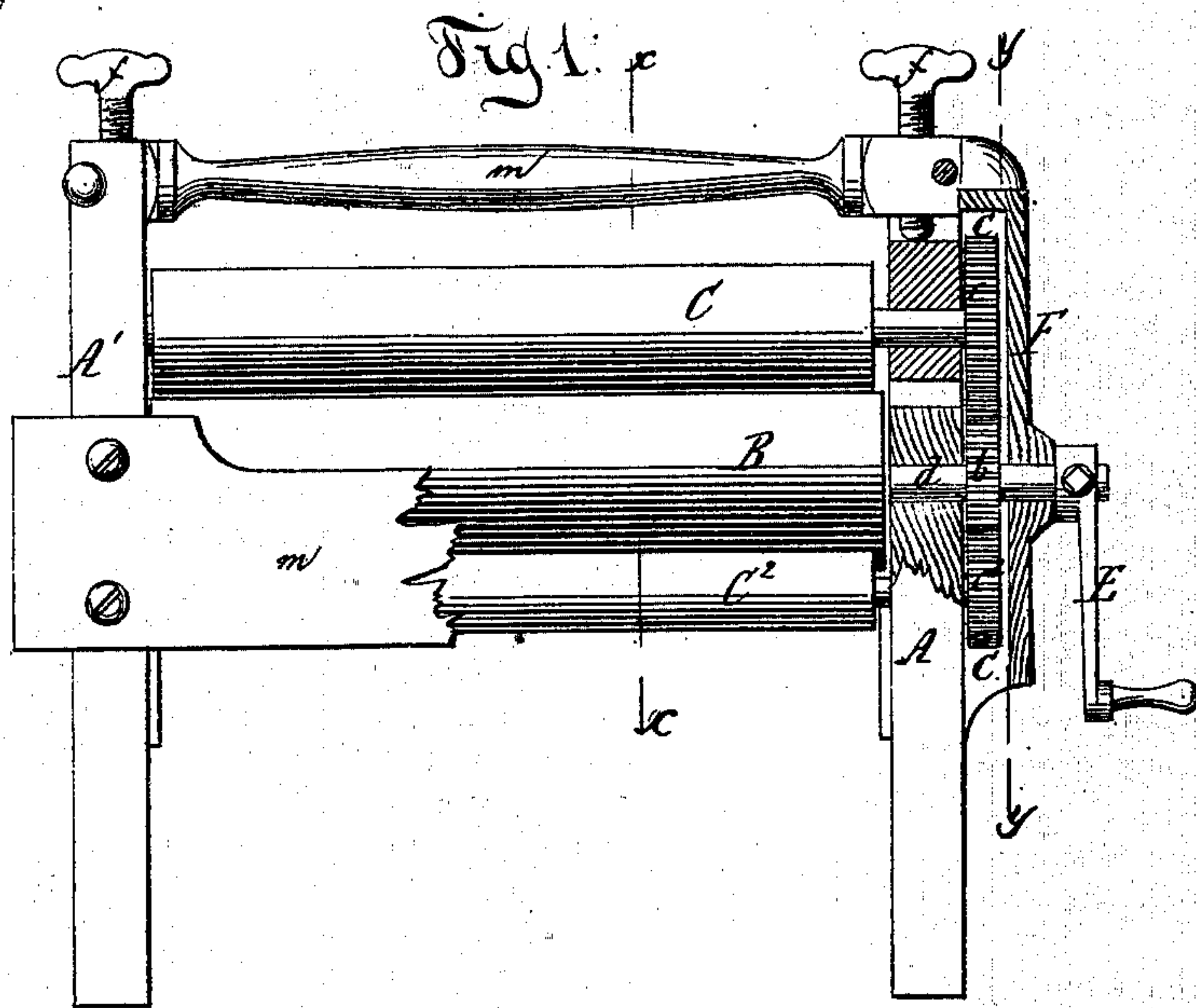


Fig. 2.

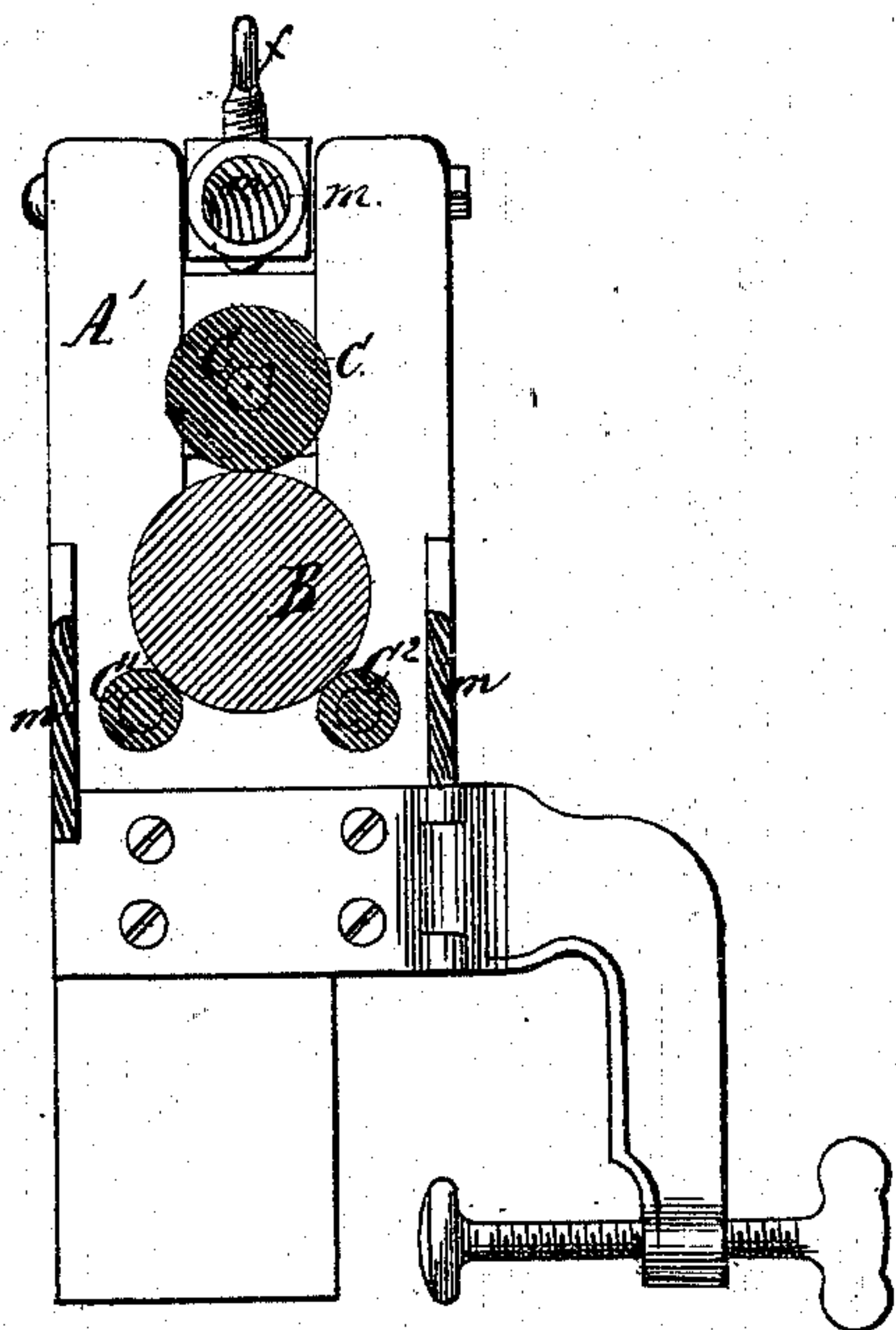
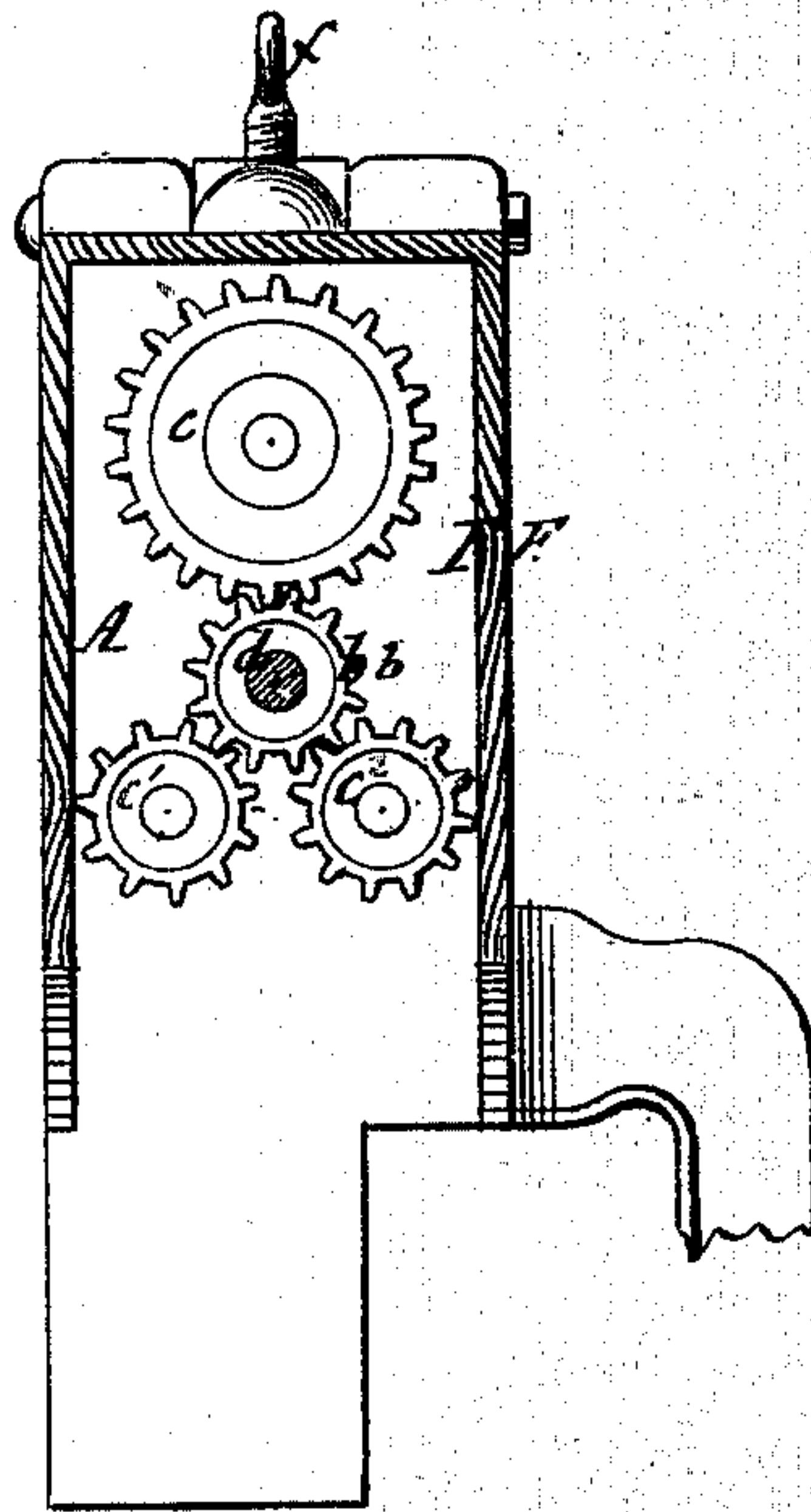


Fig. 3.



Witnesses.
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HAMILTON E. SMITH, OF FITCHBURG, MASSACHUSETTS.

IMPROVEMENT IN CLOTHES-WRINGERS.

Specification forming part of Letters Patent No. 139,200, dated May 20, 1873; application filed January 8, 1873.

To all whom it may concern:

Be it known that I, HAMILTON E. SMITH, of Fitchburg, in the county of Worcester and in the State of Massachusetts, have invented a new and useful Improvement in Clothes-Wringers; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which drawing—

Figure 1 represents a sectional front view of this invention. Fig. 2 is a transverse section of the same in the plane xx , Fig. 1. Fig. 3 is a similar section of the same in the plane yy , Fig. 1.

Similar letters indicate corresponding parts.

This invention relates to an improvement on that class of clothes-wringers which I have described in a patent granted to me May 30, 1871, No. 115,372, and in which a loose, flexible, or elastic roller is combined with a series of rigid rollers connected to each other by gear-wheels, whereby all said rigid rollers receive a positive motion.

My present improvement consists in applying the driving-power to the intermediate gear-wheel, which meshes in the gear-wheels mounted on the gudgeons of the rigid rollers, the axle of said intermediate gear-wheel being supported on the outside of the wheel by a cap, which is secured to the frame of the wringer in such a manner that said axle is firmly sustained in position, and that the motion of the machine is rendered uniform and comparatively easy.

In the drawing, the letter A designates side frames or standards, which are connected by cross-ties m , and provided with screw-clamps for the purpose of securing the same to a tub or vessel. Said screw-clamps are connected to the side frames by means of hinge-joints, (see Fig. 2,) so as to facilitate the operation of adjusting the wringer in the required position, and to allow the same to adapt themselves to the curvature of a tub or vessel to which the wringer is to be clamped. The side frames A A' form the bearings for three rigid rollers C C¹ C², between which is situated a loose, flexible, or elastic roller, B, as shown in Fig. 2. The flexible roller B runs loosely between the rigid rollers, C C¹ C², and

the axles of said rigid rollers extend through one of the side frames, and on their outer ends are mounted cog-wheels c c^1 c^2 , all of which gear into an intermediate gear-wheel, b , which is mounted on an axle, d . One end of this axle has its bearing in the side frame A and its other end is journaled in a cap, F, which is secured to the outside of said side frame and encloses all the gear-wheels. The axle d extends beyond this cap, and on its outer end is secured a hand-crank, E, or any other device for turning the cog-wheel b , and as this cog-wheel is turned motion is transmitted to the rollers C C¹ C² and also to the flexible roller B, which revolves by frictional contact with the rigid rollers. The journal-boxes of the top roller C are fitted into guide-slots on the standards and exposed to the action of set-screws f , so that the pressure exerted by the rigid rollers on the flexible roller can be increased or diminished at pleasure. The power being applied directly to the intermediate gear-wheel b is uniformly distributed to the several working parts, and neither of said parts is subjected to an undue or unequal strain; and, furthermore, the pressure exerted by the rigid rollers on the flexible roller can be more readily adjusted than it can if the power is applied to the axle of one of the rigid rollers; and, furthermore, by applying the cap F, I give a strong and durable support to the axle of the intermediate gear-wheel b , and the strength and working capacity of my wringer is materially increased.

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

1. In a wringer composed of a flexible roller, B, rigid rollers C C¹ C², and gear-wheels c c^1 c^2 b , the arrangement of a hand-crank, pulley or other equivalent device on the axle of the intermediate gear-wheel b , substantially as and for the purpose set forth.

2. The cap F in combination with the axle d of the intermediate gear-wheel b , and with the gear-wheels c c^1 c^2 , rigid rollers C C¹ C², and flexible roller B, all constructed and operating substantially in the manner described.

HAMILTON E. SMITH.

Witnesses:

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