H. A. BUCK.

Wringer.

No. 168,716.

Fig 1

Patented Oct. 11, 1875.

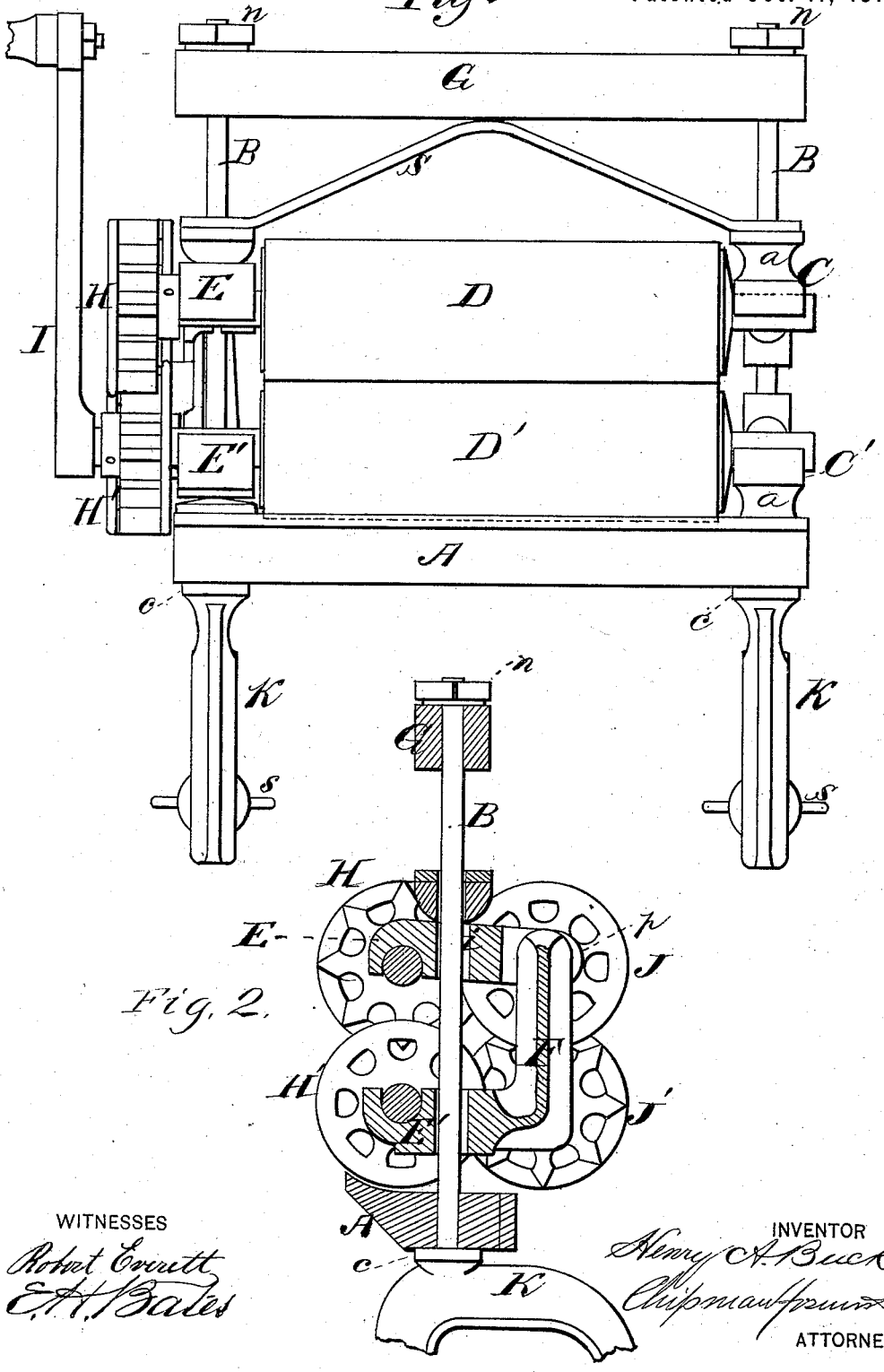

Fig. 2.

WITNESSES

Robert Everett

E. H. Bates

INVENTOR

Henry A. Buck

Chipman Brown & Co.

ATTORNEYS

UNITED STATES PATENT OFFICE.

HENRY A. BUCK, OF FREDONIA, NEW YORK.

IMPROVEMENT IN WRINGERS.

Specification forming part of Letters Patent No. **168,716**, dated October 11, 1875; application filed August 21, 1875.

To all whom it may concern:

Be it known that I, HENRY A. BUCK, of Fredonia, in the county of Chautauqua and State of New York, have invented a new and valuable Improvement in Wringers; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a front plan view of my wringer, and Fig. 2 is a transverse vertical sectional view of the same.

This invention has relation to improvements in clothes-wringers; and it consists in the arrangement and novel construction of the various devices used, whereby very useful and desirable results are obtained, as will be hereinafter fully explained and claimed.

In the annexed drawings, the letter A designates the main transverse brace of my improved wringer, through each end of which is passed, from below upward, a cylindrical metallic rod, B, which is made to support the said brace by means of a collar, *c*, cast or otherwise secured thereon. Over one of these rods are passed the tubular shanks *a* of journal-bearings C C′, which are of semi-cylindrical form, the former having its concavity downward and the latter upward. Bearings C′ C are adapted to receive the journals on one end of rubber rollers D D′, of the usual construction, between which the fabric to be wrung is designed to be passed, the journals on the other ends of the said rollers having their bearings in metallic boxes E E′, which, like boxes C C′, are passed over one of rods B and have their concavities upward and downward. The upper journal-box E is provided with an oval or oblong perforation, *i*, through which the said rod B passes, and it is pivoted to vibrate vertically to a pin, *p*, on the upper end of a metallic arm, F, forming a part of the lower journal-box E′, which is thus allowed to have a degree of vertical vibration independent of rod B, for a purpose hereinafter more fully explained. Rollers D D′ are adjustable to increase the pressure for expressing water from the fabric, operated on through the medium of a metallic spring, S, the slotted ends of which are passed over rods B and rest upon the upper journal-boxes E C, which spring is actuated to increase or lessen the expressive force of the rollers D D′ by means of a presser-bar, G, which passes over the cylindrical rods B B, and of nuts *n* applied upon the screw-threaded upper ends of the said rods. When the rollers are caused to rotate, by means hereinafter explained, a garment passing between them will sometimes be thicker at one end than at the other. Bearings C being endwise movable from bearing C′, no further provision is requisite for allowing the rollers to separate and a thicker portion of a garment to pass; but, the upper bearing E being pivoted to a fixed portion of the lower bearing E′, I have caused the perforation in the shank of the bearing through which rod B passes to be made oblong, so that the said upper journal-bearing will vibrate vertically in a plane vertical to the length of the roller, thus allowing this end of the roller to yield and the garment to pass through readily and easily. These rollers are operated by means of interlocking gear-wheels H H′, respectively, on the spindles of the upper and lower ones, through the medium of a crank-arm, I; but, as it sometimes happens that the yielding of the upper roller disengages these gears, as when a very thick garment passes between the rollers, I employ two other gears, J J′, rotating on spindles *j j′* of the upward extension F of journal-bearing E′, and interlocking with each other and with gears H′ H, which gears, being always in engagement with gears H H′ and with each other, will insure a continuous rotation of the upper roller D, even though the latter gears be disengaged from each other. Rods B B′, on which the bearings of my improved roller-wringer are passed, has free rotation independent thereof, of springs S, and brace and presser-bars A G, and their lower ends are provided with an inverted U-shaped continuation, K, through one of the arms of which is passed a screw, *s*, thus forming a serviceable clamp, which will be readily adjustable to the edge of any tub of

cylindrical form, the diameter of which is equal to or greater than the distance between the axes of clamp-rods B B.

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

1. In a wringer, the combination of the rotating rods B, having a clamp, K, upon their lower ends, with the boxes *c c'* E E', and rollers D D', substantially as specified.

2. The combination, with the rollers D D' and rod B, of the vertically-vibrating journal-bearing E, pivoted to extension F and having an oblong perforation, *i*, receiving the said rod, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

HENRY AVARY BUCK.

Witnesses:
B. F. SKINNER,
BENJ. THOMPSON.