A. Philipp,

Washing Machine.

No 45,172. Patented Nov 22, 1864.

Fig: 1.

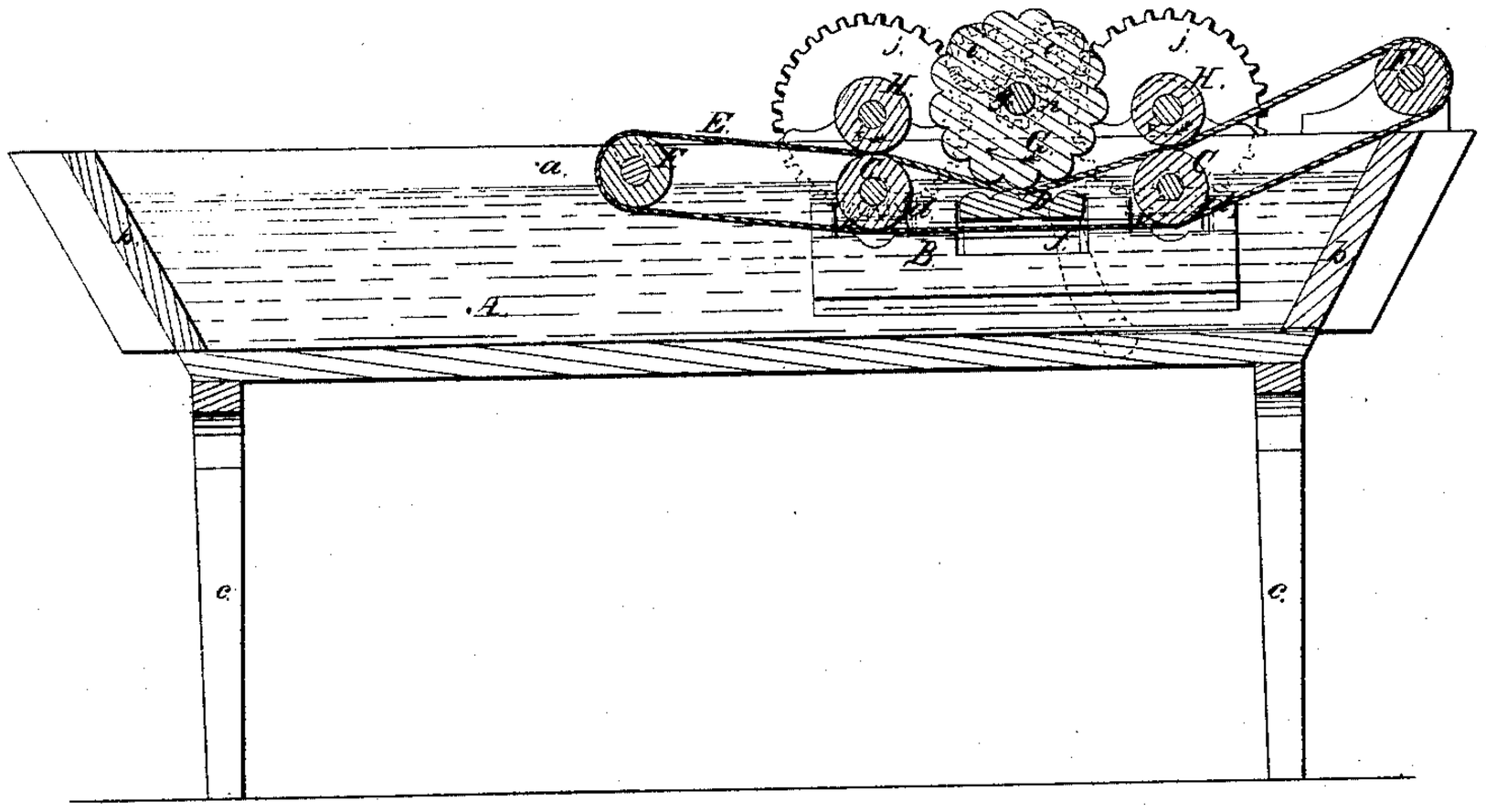


Fig: 2.

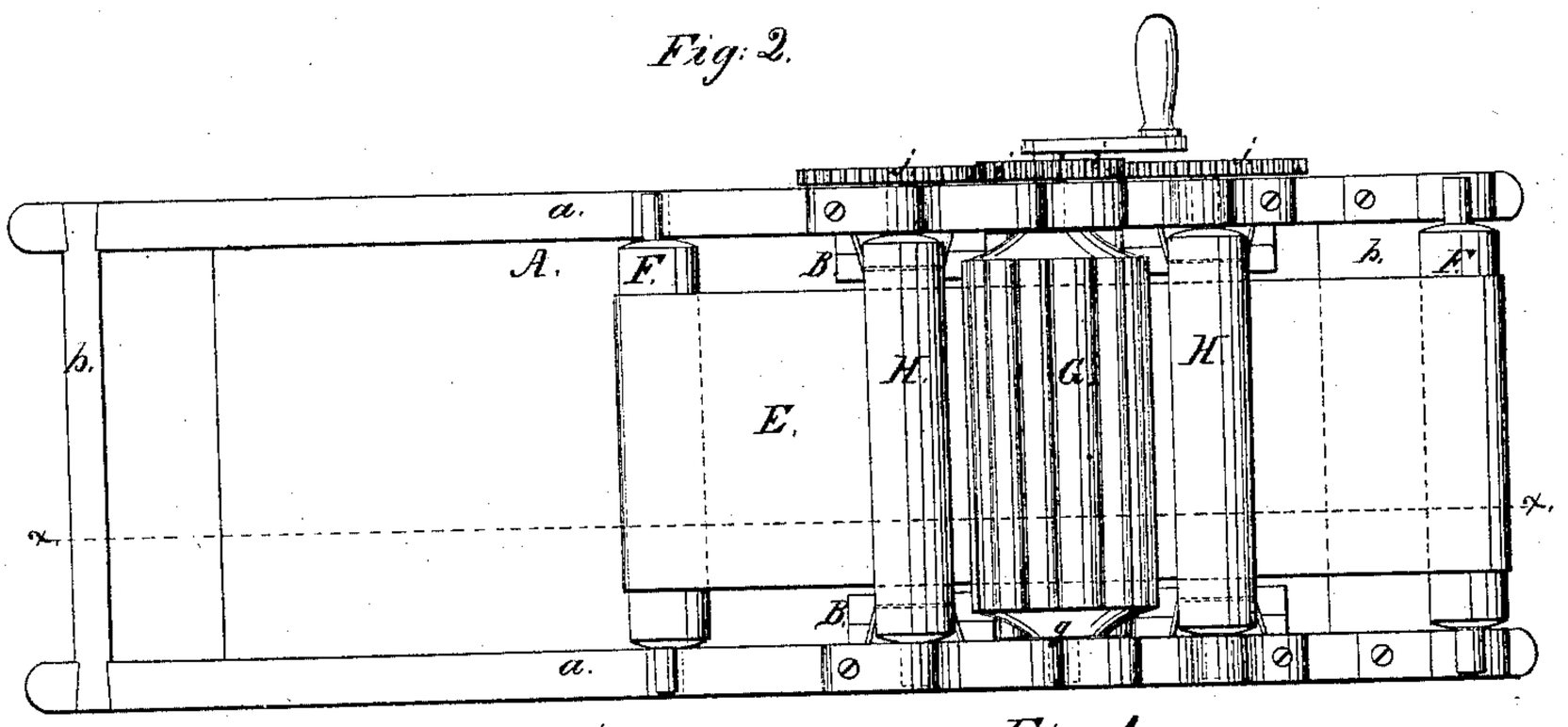


Fig: 3.

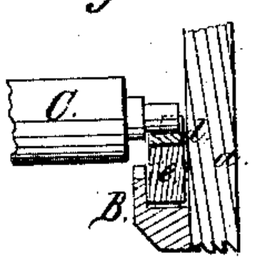
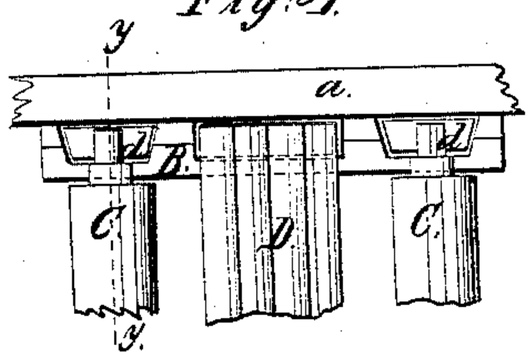


Fig: 4.



Witnesses:

Henry Morris

E L Topliff

Inventor:

Albert Philipp

per Munn & Co

attorney

UNITED STATES PATENT OFFICE.

ALBERT PHILIPP, OF APPLETON, WISCONSIN.

IMPROVED WASHING-MACHINE.

Specification forming part of Letters Patent No. **45,172**, dated November 22, 1864.

To all whom it may concern:

Be it known that I, ALBERT PHILIPP, of Appleton, in the county of Outagamie and State of Wisconsin, have invented a new and Improved Clothes-Washing Machine; and I do hereby declare that the following is 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 drawings, forming part of this specification, in which—

Figure 1 is a longitudinal vertical section of my invention, taken in the line *x x*, Fig. 2; Fig. 2, a plan or top view of the same; Fig. 3, a vertical section of a portion of the same, taken in the line *y y*, Fig. 4; Fig. 4, a plan or top view of certain parts pertaining to the same.

Similar letters of reference indicate corresponding parts.

This invention consists in the employment or use of a fluted cylinder, pressure-rollers, an endless apron, and yielding bed, all arranged and combined as hereinafter fully shown and described, whereby clothes may be washed with great facility and in a perfect and thorough manner.

A represents a suds-box, of oblong form, having vertical sides *a a* and inclined ends *b b*, and supported at any suitable height by legs *c*. To the inner surfaces of the sides *a a* there are secured horizontal cleats B, in which the bearings *d* of rollers C C are fitted, said bearings resting on springs *e*, of india-rubber or other suitable elastic material, as shown clearly in Fig. 3. These rollers C C are placed at a suitable distance apart, and midway between them there is placed a yielding bed, D, the upper surface of which is fluted longitudinally. This bed D is parallel with the two rollers, C C, and its ends rest upon springs *f*, of india-rubber or other suitable elastic material, which are inserted in the cleats B B.

E is an endless apron, which works over rollers F F and passes underneath and over the rollers C C and the bed D, as shown clearly in Fig. 1, and G is a fluted cylinder, which is placed transversely over the endless apron E in line with or directly over the bed D. The shaft *g* of the cylinder G has a pinion, *h*, upon it near one end, and this pinion *h* gears into two similar pinions, *i i*, which gear into wheels *j j* at one end of rollers H H, the latter being over the apron E and parallel with the cylinder G.

The operation is as follows: The suds-box A is provided with a requisite quantity of suds, and the clothes to be washed are passed between the fluted cylinder G and rollers H H, said cylinder and rollers being moved first in one direction and then in the other, the requisite pressure being given the clothes by means of the rollers C C and bed D, said rollers and bed, in consequence of resting upon springs, being allowed to yield or give, to conform to the inequality of thickness in the layer of clothes being operated upon. The fluted cylinder G and fluted bed D cause the clothes to be subjected to a requisite degree of friction, while the endless apron E serves as a conveyer, and the rollers H C serve to force the suds through the texture of the clothes, and also serve to feed the clothes back and forth under cylinder G.

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

The endless apron E, in connection with the fluted cylinder G, rollers H H, yielding bed D, and the yielding rollers C C, all arranged in a suds-box, A, to operate in the manner substantially as and for the purpose specified.

ALBERT PHILIPP.

Witnesses:

W. S. WARNER,

H. L. MORREL.