

D. & D. F. BORN.
 WASHING-MACHINE.

No. 174,765.

Patented March 14, 1876.

Fig. 1.

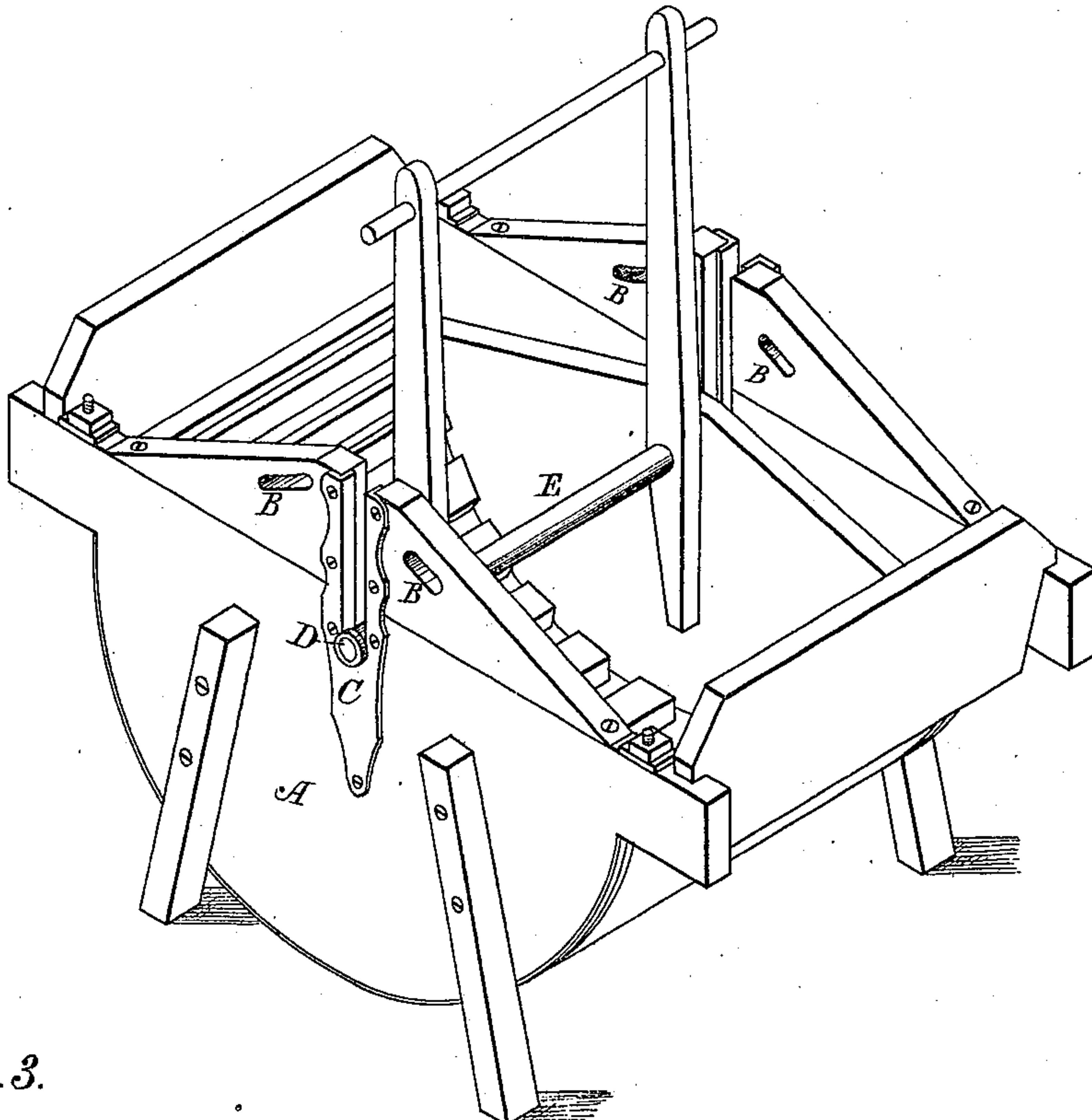


Fig. 3.

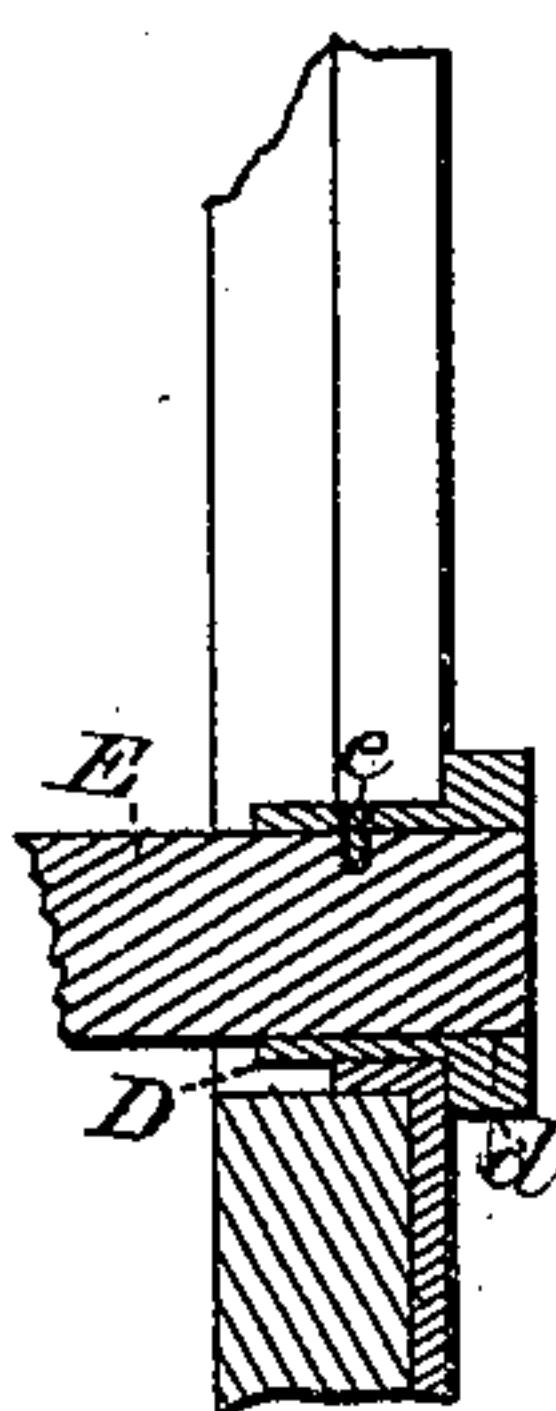


Fig. 2.

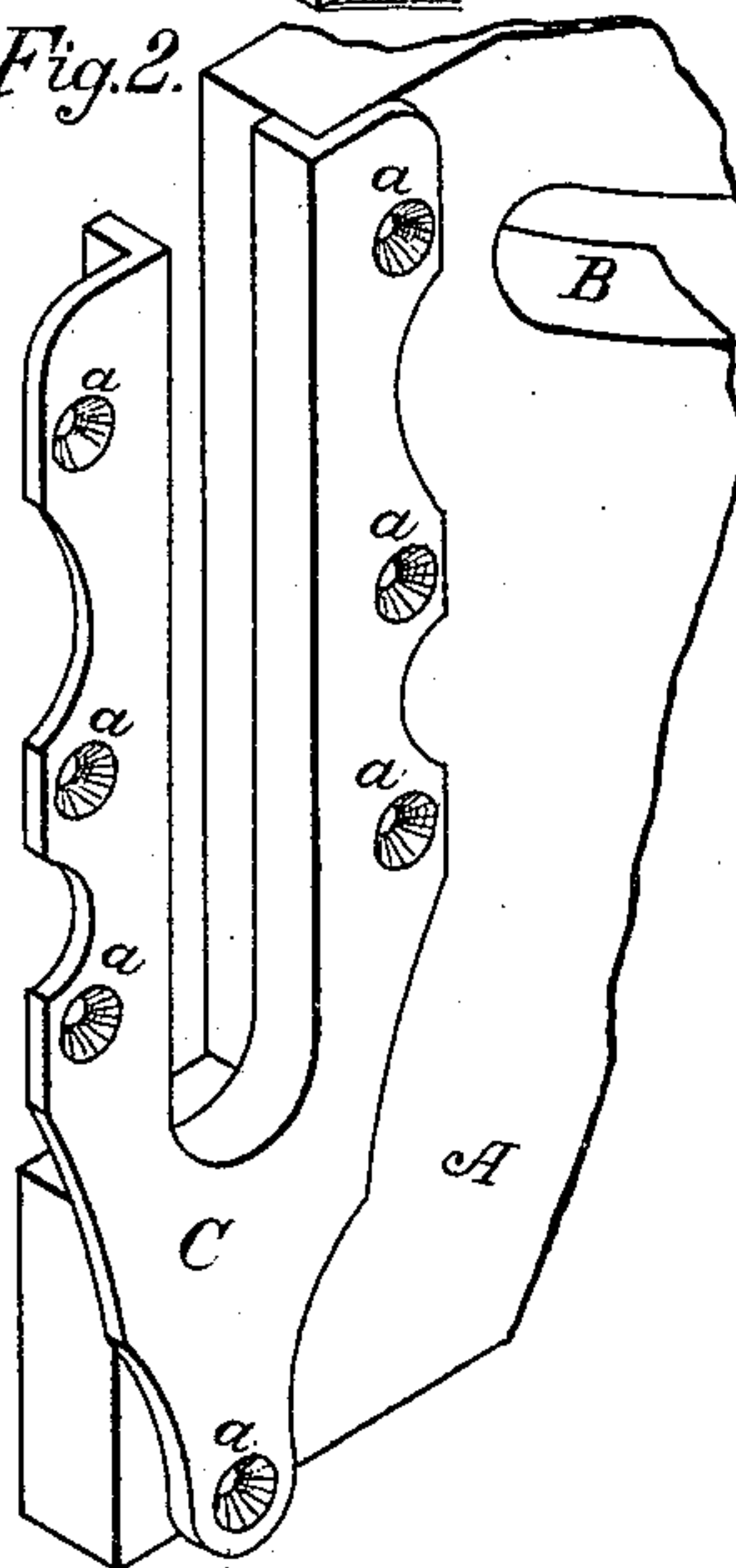
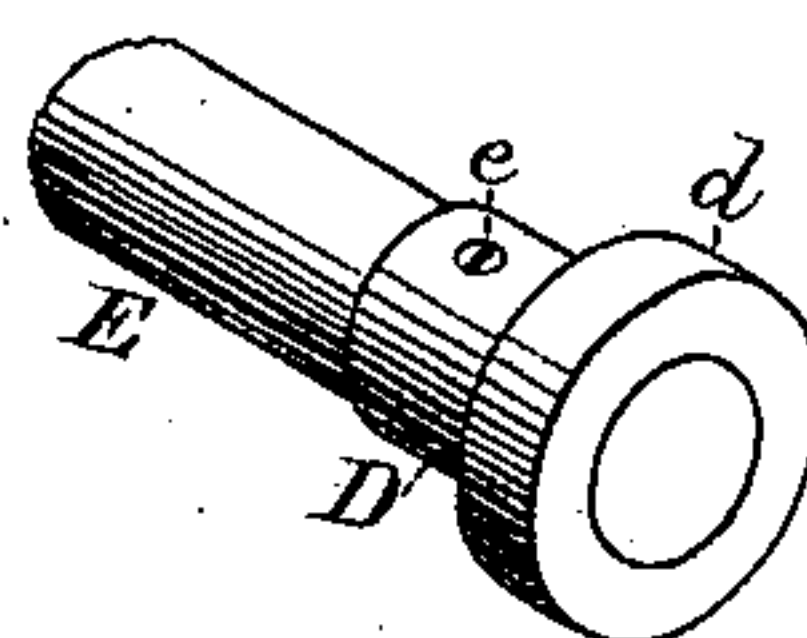


Fig. 4.



Attest:
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UNITED STATES PATENT OFFICE.

DAVID BORN AND DAVID F. BORN, OF DELTA, OHIO.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **174,765**, dated March 14, 1876; application filed December 11, 1875.

To all whom it may concern:

Be it known that we, DAVID BORN and DAVID F. BORN, of the town of Delta, county of Fulton, State of Ohio, have invented certain new and useful Improvements in Washing-Machines, of which the following is such a full, clear, and exact description as will enable others skilled in the art to which it pertains to construct and use the same, reference being had to the accompanying drawings forming a part of this specification, and to the letters of reference marked thereon, similar letters indicating corresponding parts in the different figures.

This invention is intended as an improvement upon the washing-machine for which Letters Patent No. 166,584 were granted to us upon the 10th day of August, 1875, but may be applied to others of a similar construction, the object being to provide suitable metallic bearing-surfaces to receive the wear of the shaft upon which the rubber oscillates, and which shall at the same time act as a tie to prevent warping of the sides of the machine; and the invention consists in the construction and arrangement of a slotted metallic bearing, with a headed metallic ferrule placed upon each end of the oscillating shaft, as will be hereinafter fully described, and then pointed out in the claim.

Figure 1 is a perspective view of a washing-machine complete with our improvements attached. Fig. 2 shows the slotted bearing-plate also in perspective. Fig. 3 represents a section through a portion of the side of a machine, the slotted bearing-plate, and the shaft, and its ferrule, upon which the rubber oscillates. Fig. 4 is a perspective view of one of the ferrules and a portion of the shaft upon which they are secured.

That portion of the machine marked A shows a side piece constructed in the ordinary manner, except that it is provided with hand-holes, B, which afford a convenient means of taking hold of the machine, and facilitates the operation of moving it from place to place.

C represents a flanged and slotted metallic bearing-plate provided with holes *a* in the flange, by which it is secured through the agency of suitable screws to the side pieces A of the machine. That portion of the plate C which sustains the wear is made broad, and projects into a slot cut in the side of the machine for its reception. The ferrule D is formed with a projecting flange, *d*, at one end, and is secured to the shaft E by means of the screw or rivet *e*. The body of this ferrule is of such diameter as to move easily in the vertical slot of the bearing-plate, while its flange *d* upon the outside retains it in position, and prevents the spreading of the sides of the machine from warping or other cause, while it in no way interferes with the vertical movement of the rubber necessary to accommodate it to the different quantities of material undergoing the operation of washing in the machine.

We are aware that slotted metal plates have been used for the purpose of adding strength to the sides of washing-machines, and that rods or shafts of metal have also been used for the bearings upon which the rubber oscillates; therefore we do not claim such devices; but

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

The friction-plate C, having an angular flange adapted to fit within the slot in the side A, in combination with the shaft E, having metallic thimbles D fitted upon its ends, said thimbles being provided with flanges *d*, as and for the purpose set forth.

In testimony that we claim the foregoing we hereunto affix our signatures this 2d day of November, 1875, in presence of two witnesses.

DAVID BORN.
DAVID F. BORN.

Witnesses:

JOHN FLICKINGER,
JAMES J. BORN.