(Model.)

L. BECKER.
Washing Machine.

No. 232,667. Patented Sept. 28, 1880.

Fig. 1.

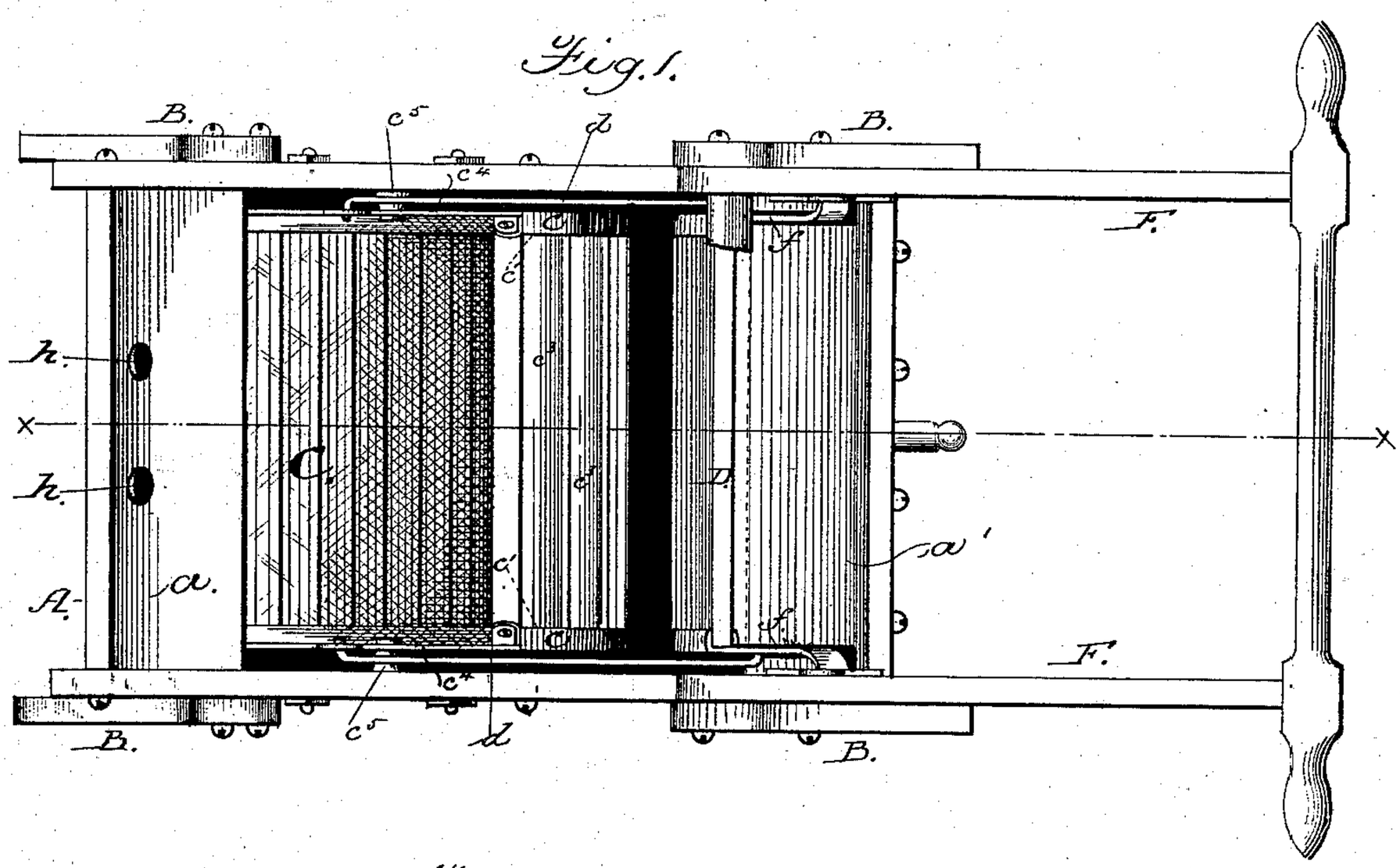
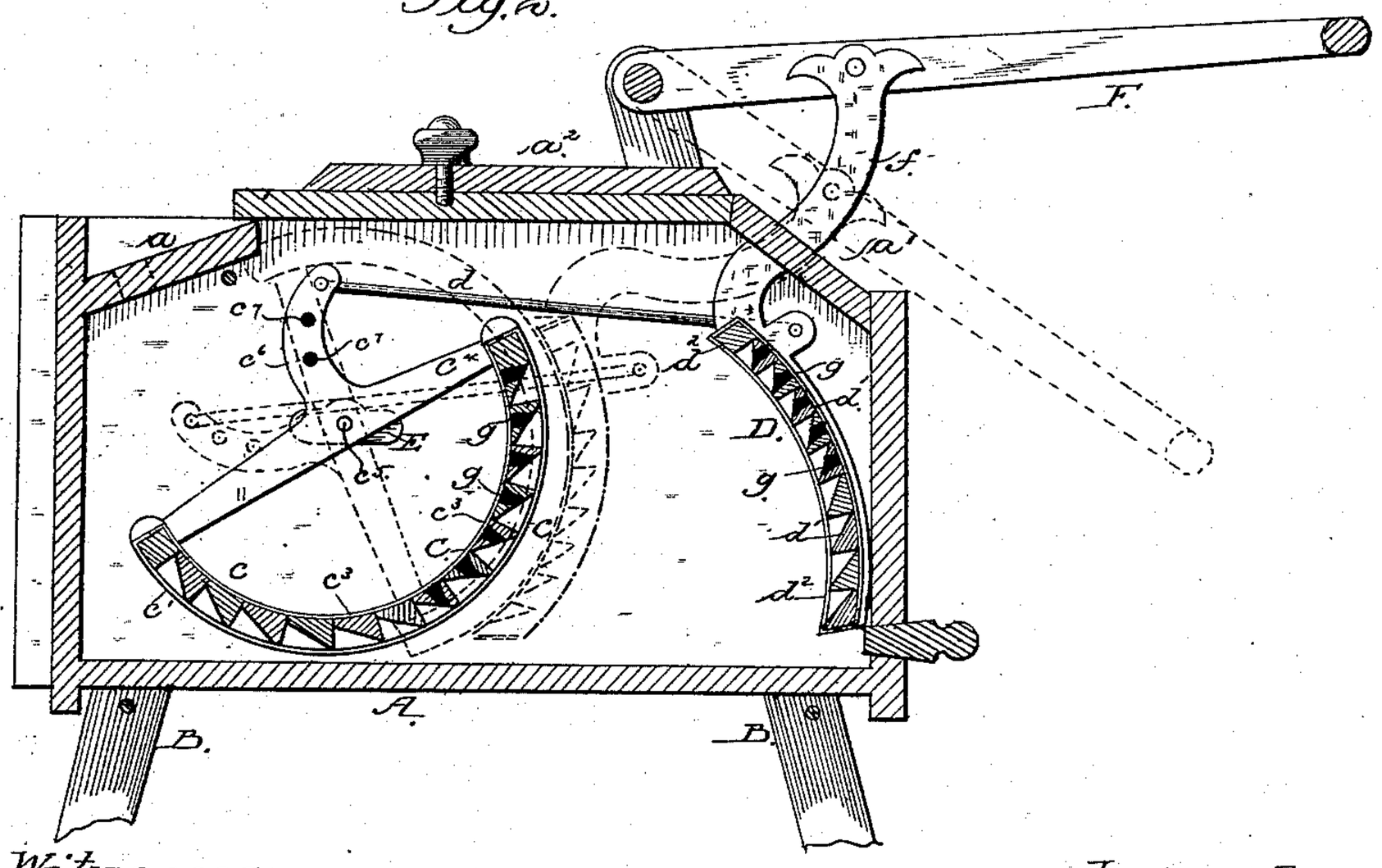


Fig. 2.



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UNITED STATES PATENT OFFICE.

LEANDER BECKER, OF YORK, PENNSYLVANIA.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 232,667, dated September 28, 1880.

Application filed April 27, 1880. (Model.)

To all whom it may concern:

Be it known that I, LEANDER BECKER, of York, in the county of York and State of Pennsylvania, have invented certain new and useful Improvements in Washing-Machines; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a top-plan view of the machine with the cover to the tub removed, and Fig. 2 a longitudinal sectional view of the same with the cover on.

Similar letters of reference in the several figures denote the same parts.

This invention relates to that class of washing-machines in which the clothes are subjected to the action of two co-operating rubbing-surfaces, one of which has a rotary reciprocating movement and the other a reciprocating movement toward and from the first; and it relates particularly to improvements on the machine for which Letters Patent of the United States No. 217,979 were granted and issued to me July 29, 1879.

Said improvements consist, first, in mounting the rotary reciprocating rubber upon pivots or bearings which are eccentric to its circular operating-face, whereby said rubber is caused to rise from the bottom of the tub as the other reciprocating rubber moves forward to meet it, and to better lift the clothes into position to be operated upon by said rubbers; and, secondly, in providing means for adjusting the extent of movement of the rotary reciprocating rubber.

In the drawings, A represents the tub or body of the machine, supported upon legs B in the usual manner. The form and construction of the tub do not differ materially from that shown in my patent before referred to, except that it is provided with water-deflectors *a a'* at both ends instead of at one end, and has a cover or top, a^2, as shown in Fig. 2. The deflector *a* is provided with holes or perforations *h h*, near its lower edge, to permit the return into the tub of any water that may drain from wet clothes placed on top of said deflector, or that may get on top of said deflector in any other way.

C is the rotary reciprocating rubber, and D the other reciprocating rubber co-operating therewith. The former consists of circular end pieces, *c*, having flanges *c'*, between which are held the ribs c^3, that form the face of the rubber. The extremities of the end pieces are connected by bars c^4, that carry the pivots c^5, on which the rubber is supported, and have arms c^6, to which rods *d* are connected, as shown.

Brackets E, secured to the sides of the tub, form the bearings for the pivots c^5.

The rubber D is composed of slats *d'*, held between stout flanged end bars, d^2 d^2, secured to the arms *f f* of a pivoted operating-handle, F. The rods *d d*, before alluded to, connect the arms c^6 of the rotary reciprocating rubber C to the side bars, d^2 d^2, of the rubber D, as plainly shown in Fig. 2, so that when the rubber D is moved forward the rubber C will be moved upward on its pivots to meet it, and the clothes between said rubbers will be thoroughly rubbed and cleansed.

Instead of locating the pivots of the rubber C midway of the bars c^4, as in my former patent, I now locate them a little nearer the upper end of said bars, so that an eccentric motion will be given to the rubber, causing it to rise up from the bottom of the tub as the rubber D moves forward to meet it, and to lift the clothes into contact with said rubber D, and thus secure a better action on the clothes, besides rendering the rubber C less liable to become bound by clothes lying on the bottom of the tub.

Perforations *g* are made in the faces of both rubbers for the purpose of permitting the escape of the water that is carried up between the ribs c^3, and also that which is expressed from the clothes when the two rubbers come together. The perforations are made tapering, in order that the result may be more perfectly accomplished.

To vary the throw of the rubber C the connecting-rods *d* are adapted to engage with any of a series of holes, c^7, in the arms c^6, as shown in Fig. 2. When engaged with the innermost holes of the series the throw is greatest, and when engaged with the outermost holes it is least.

The machine thus constructed has fewer

parts than the old patented machine, is more effective in its operation, and is not so expensive.

I claim as my invention—

1. The combination, with the reciprocating rubber D and connecting-rod *d*, of the rotary reciprocating rubber C, having its pivots eccentric to its rubbing-face, whereby it is caused to rise as the rubber D moves forward to meet it, so as to clear the bottom of the tub and better lift the clothes into position to be operated upon, substantially as described.

2. The rotary reciprocating rubber C, pivoted eccentrically, as described, and having the series of perforations c^7 in its supporting-arms c^6, in combination with the rubber D, the connecting-rods *d*, adjustable within the perforations c^7, and the operating-handle, whereby the throw of the rubber C can be regulated and adjusted without altering the throw of the operating-handle, substantially as described.

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