

R. M. BASSETT.  
Puddlers' Balls Rollers.

No. 139,356.

Patented May 27, 1873.

Fig 1

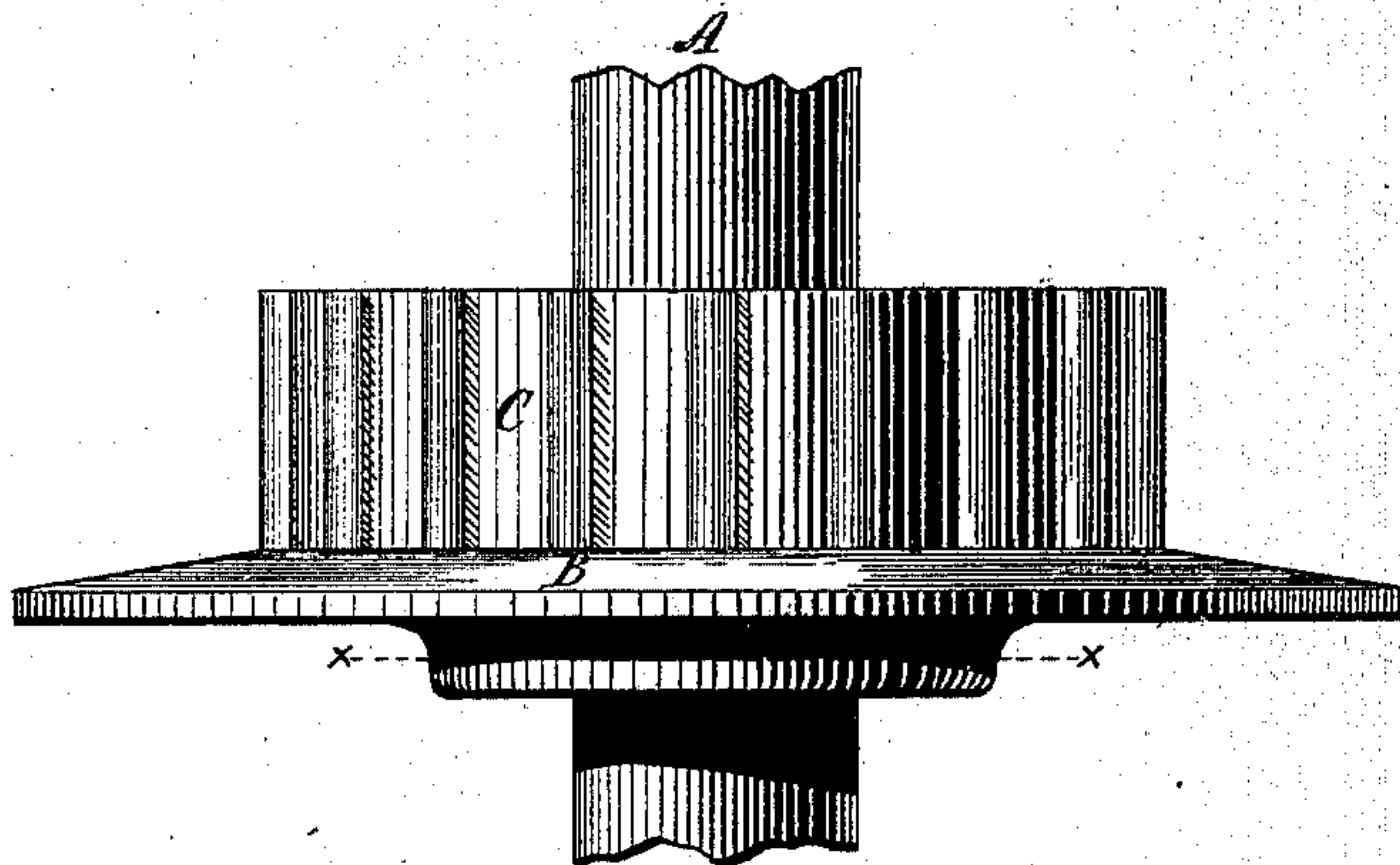


Fig 2.

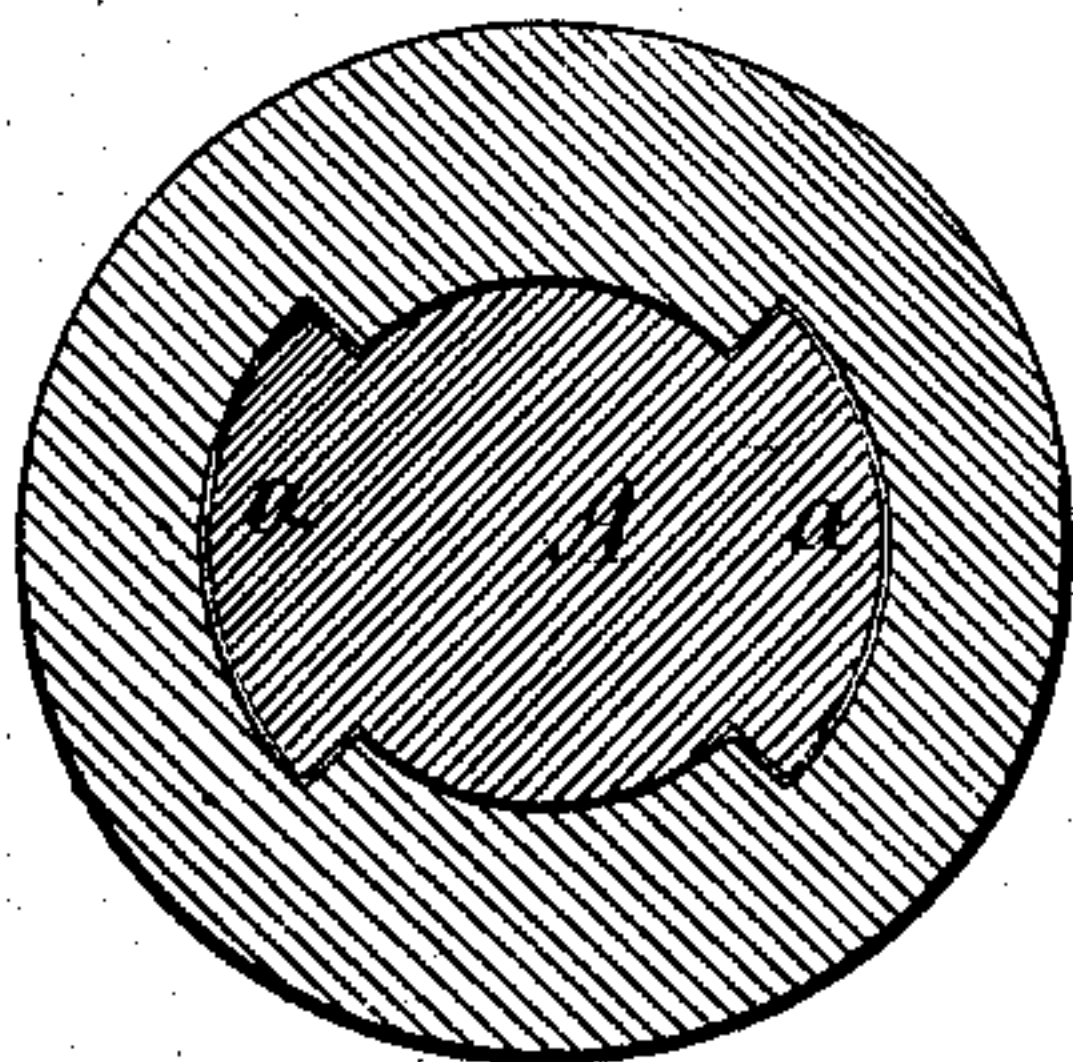
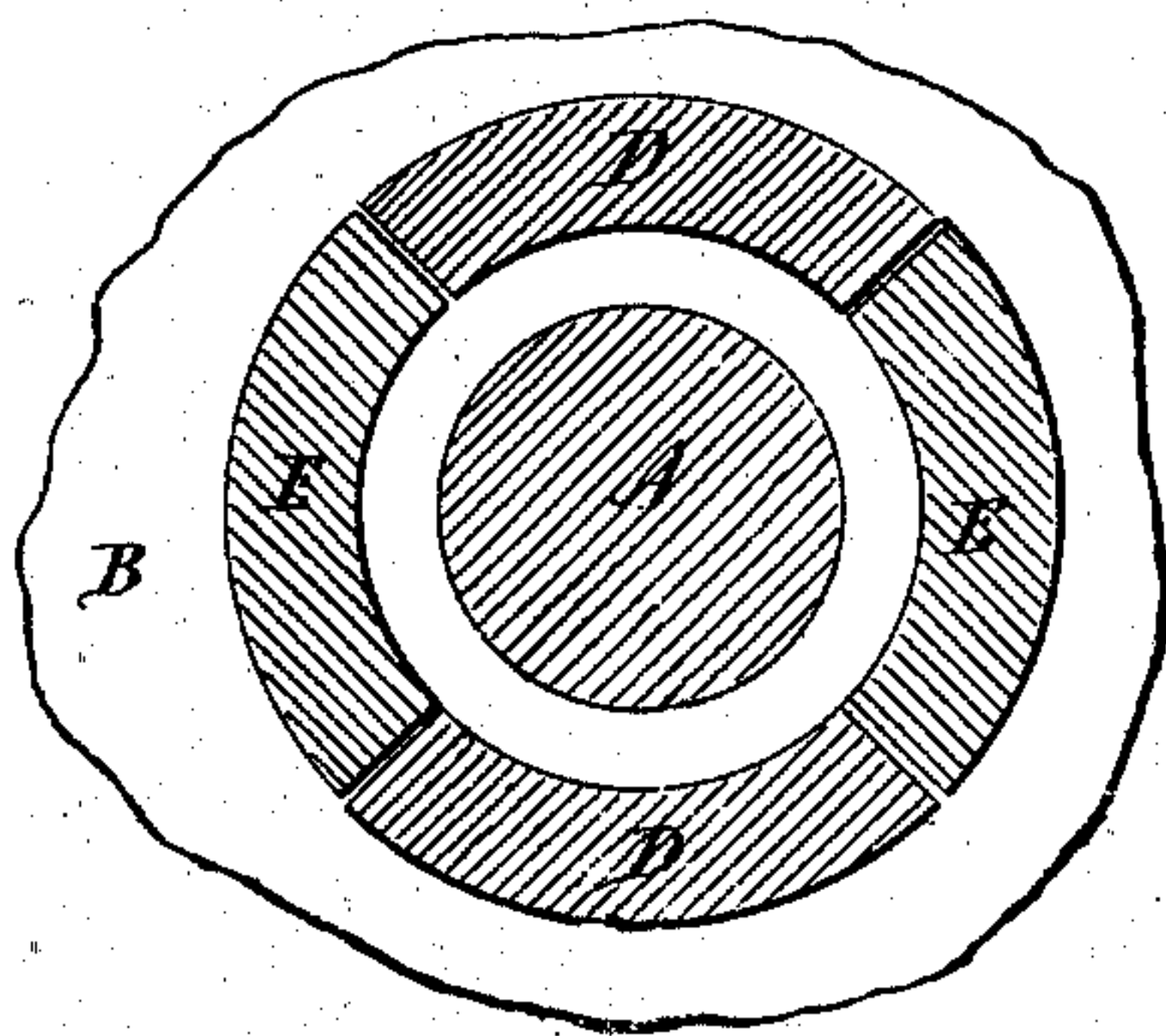
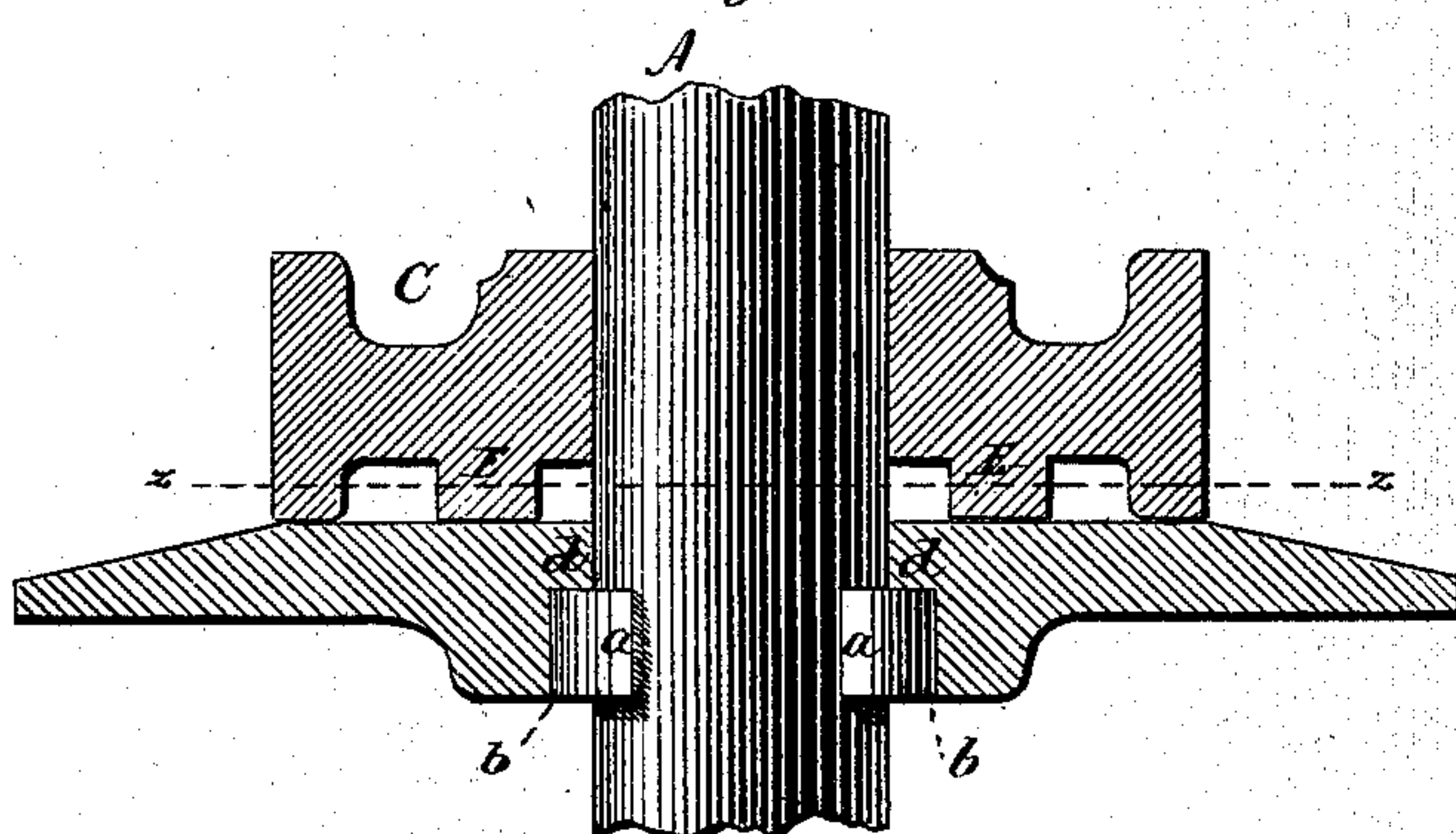


Fig 3



Witnesses.

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## IMPROVEMENT IN PUDDLERS'-BALLS ROLLERS.

Specification forming part of Letters Patent No. **139,356**, dated May 27, 1873; application filed March 21, 1873.

*To all whom it may concern:*

Be it known that I, ROYAL M. BASSETT, of Birmingham, in the county of New Haven and State of Connecticut, have invented a new Improvement in Squeezers for Puddlers' Balls; and do hereby declare the following, when taken in connection with the accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a side view; Fig. 2, a section on line *x x*; Fig. 3, a vertical central section; Fig. 4, a section on line *z z*, Fig. 3.

This invention relates to an improvement in the machine for rolling puddlers' balls known as "Burden's Rotary or Coffee-Mill Squeezers." As usually constructed, the plate and inner roll are keyed to the shaft, the shaft being vertical. The plate and roll receive from the hot balls a considerable degree of heat, which causes them to expand and thus to loosen upon the key, from which difficulties arise. Again, it is often desirable to remove the plate or roll, or both, and if keyed to the shaft firmly when hot, then, in shrinking, the key is so firmly bound that it is with great difficulty removed. Further, the fitting of the keys is a work involving considerable expense.

To overcome these difficulties and cheapen the construction is the object of this invention; and it consists in constructing the shaft with lugs, upon which the plate sits so as to be supported vertically and to revolve with the said shaft, and the said plate constructed with

lugs or segmental flanges upon which the roll sits so as to revolve with the shaft.

A is the shaft; B, the plate; C, the roll, which revolves with the shaft and plate. The other points of the machine are too well known to require explanation here. On the shaft A one or more lugs, *a*, are formed, and the plate B is constructed with recesses *b*, corresponding to the said lug or lugs. These recesses are, in depth, less than the plate in thickness, so as to leave a portion, *d*, of the plate above the lugs, as seen in Fig. 3, which rests upon the upper side of the lugs *a*, so as to support the plates vertically, and at the same time to cause the plate to revolve with the shaft. Thus the plate is at any time removed and yet so firmly held that it cannot get out of place—that is to say, the usual removable key is entirely dispensed with and the difficulties attending the use of the key avoided. I form the plate B with segmental flanges D, and the roll C with corresponding segmental flanges E to sit between the flanges D, as seen in Fig. 4, which couples the plate and roll together, so that from the shaft through the plate the roll is caused to revolve. Whenever occasion requires the removal of the plate or the roll, it may be done by raising it vertically.

I claim as my invention—

The combination of the shaft, roll, and plate by means of the flanges, lugs, and recesses described, and in the manner shown.

ROYAL M. BASSETT.

Witnesses:

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