

W. E. HAWKINS.

Improvement in Machinery Clutch.

No. 124,058.

Patented Feb. 27, 1872.

Fig 1.

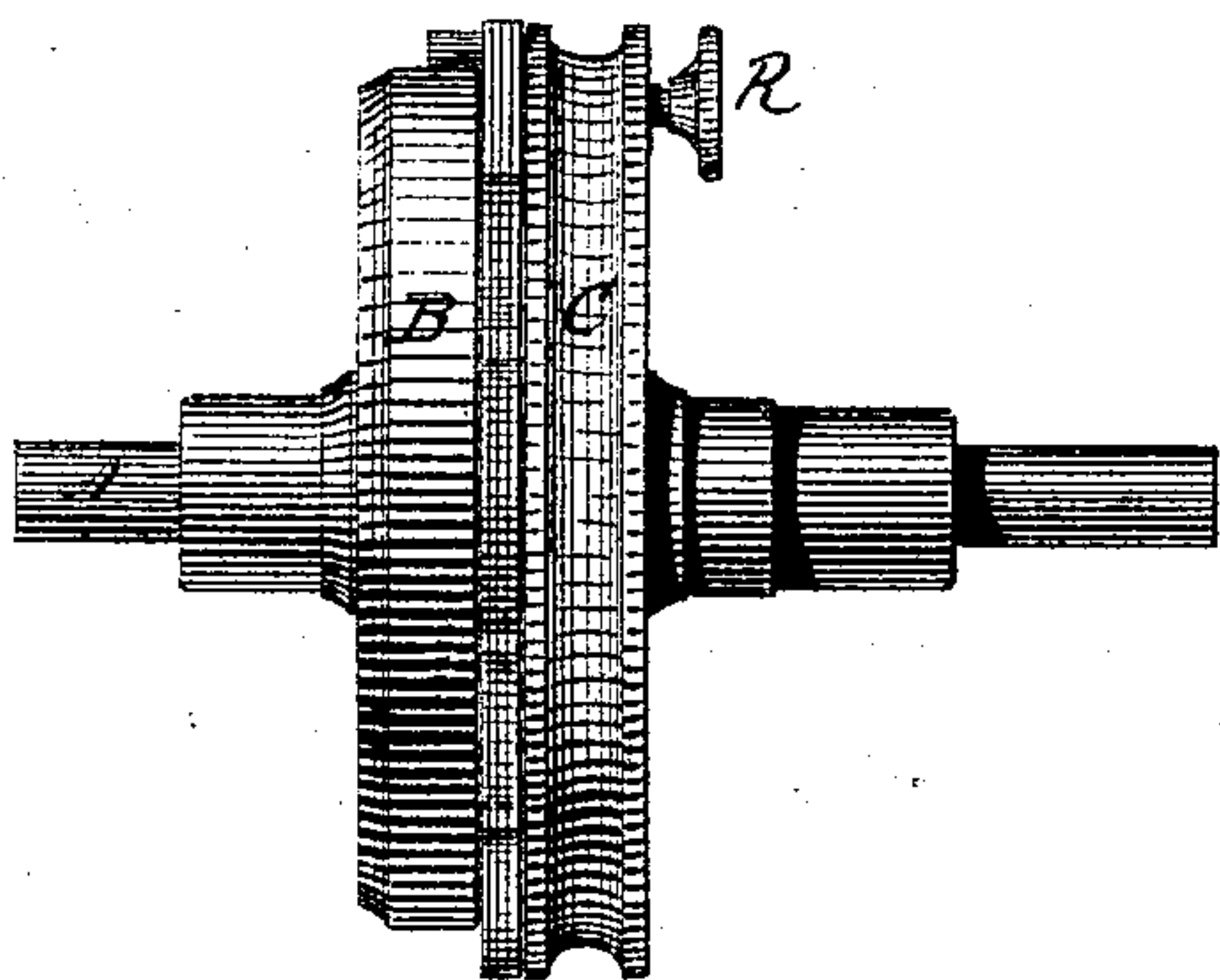


Fig 2.

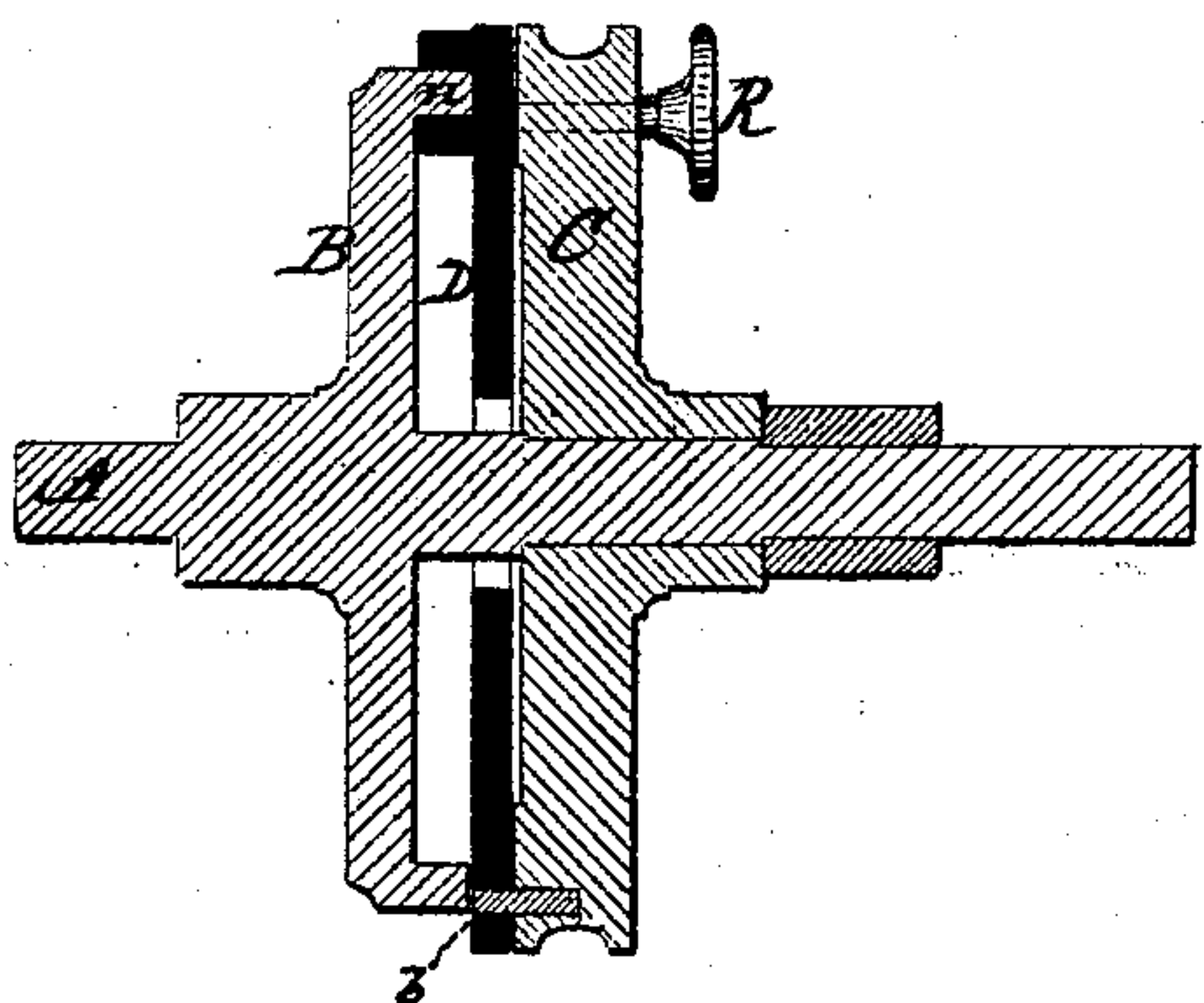


Fig 3.

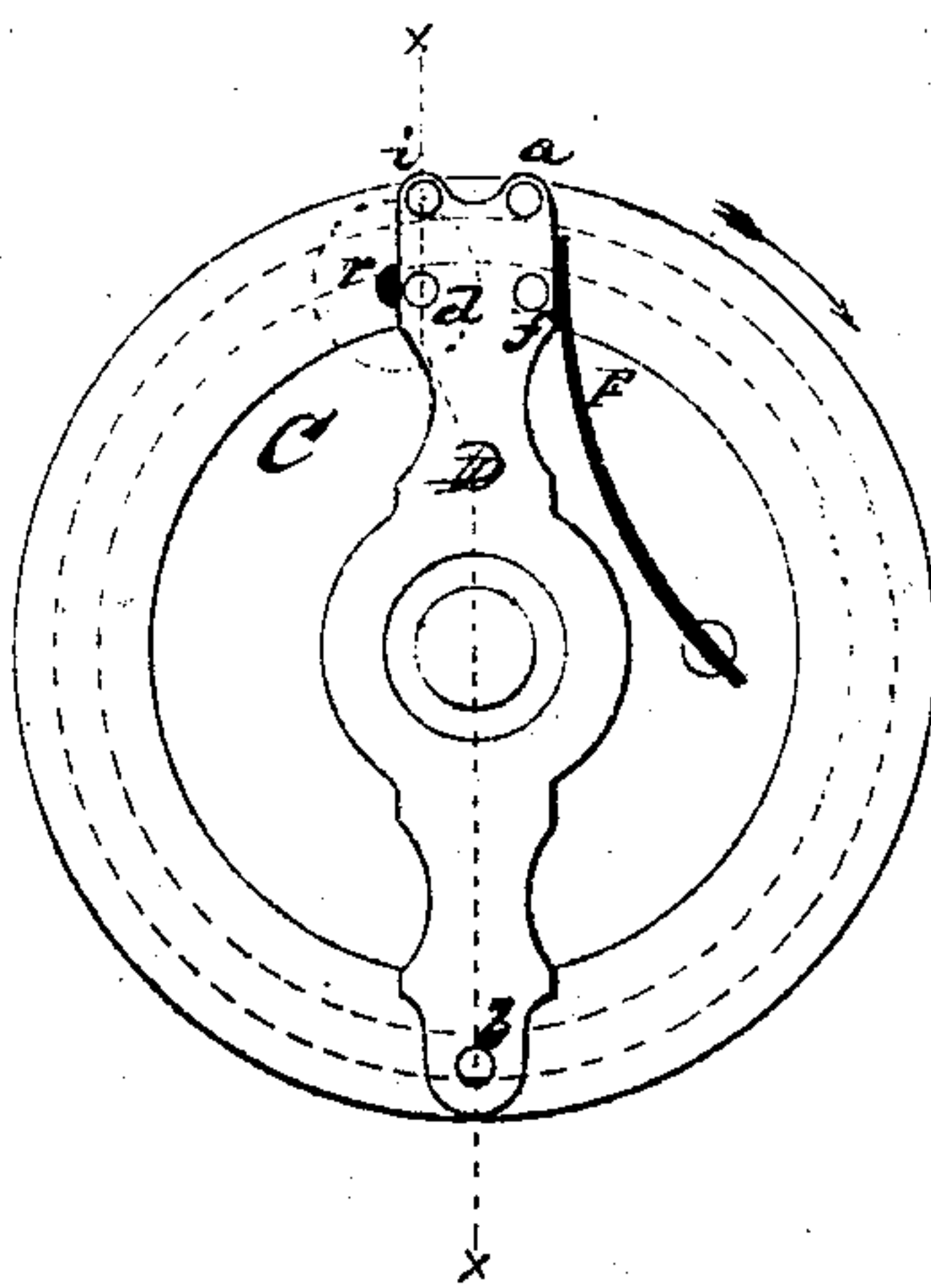
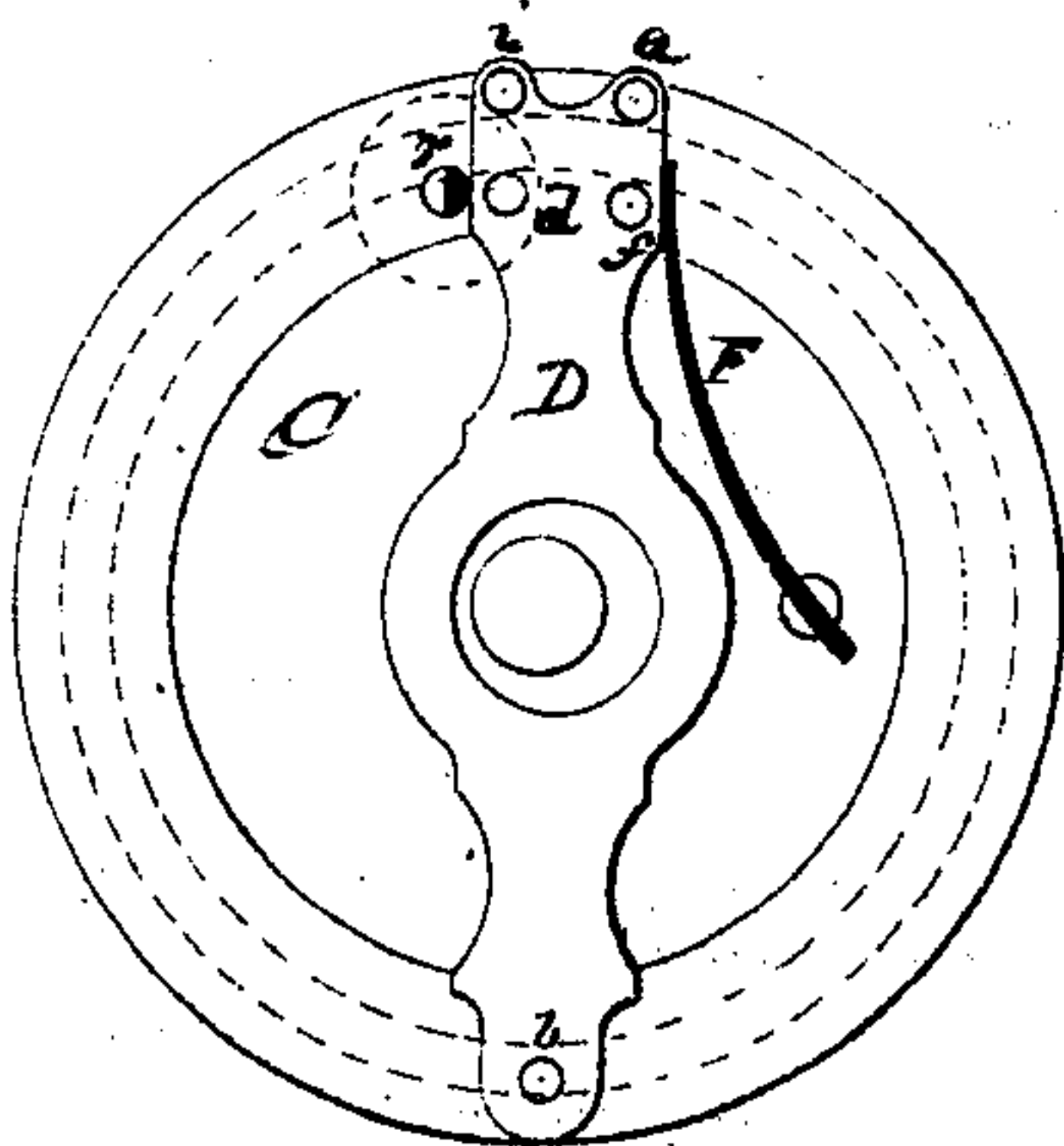


Fig 4.



Witnesses.

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Inventor

By his Atty

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# UNITED STATES PATENT OFFICE.

WESTEL E. HAWKINS, OF WALLINGFORD, CONNECTICUT, ASSIGNOR TO HIMSELF AND EDWARD F. COOK, OF SAME PLACE.

## IMPROVEMENT IN MACHINERY-CLUTCHES.

Specification forming part of Letters Patent No. 124,058, dated February 27, 1872.

*To all whom it may concern:*

Be it known that I, WESTEL E. HAWKINS, of Wallingford, in the county of New Haven and State of Connecticut, have invented a new Improvement in Machinery-Clutch; and I do hereby declare the following, when taken in connection with the accompanying drawing and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawing constitutes part of this specification, and represents in—

Figure 1, a side view; Fig. 2, a longitudinal central section on line *xx* of Fig. 3; Fig. 3, an interior view in a state of rest; and in Fig. 4, the same with the clutch engaged.

This invention relates to an improvement in device for engaging or disengaging a loose pulley with the shaft upon which it is arranged, and is adapted for the conversion of reciprocating into rotary motion, as for feeding devices and like purposes; and the invention consists in the arrangement of a lever, in connection with the loose plate or pulley, combined with a plate fixed to the shaft, so that the said lever will in one direction engage with the rim of the fixed plate and pass loosely over it in another position.

A represents the shaft; B, a plate rigidly attached to and revolving with the shaft; and C, the loose pulley or plate. Between the plates B and C a lever, D, is arranged, extending across the face of the plate, as seen in Fig. 3, around the shaft or at one side of it, but so as to be entirely free from the shaft in any position. On the lever D two pins or projections, *a* *d*, are arranged, the one *a* above and the other *d* below, and a flange, *n*, on the fixed plate B, this flange being denoted in broken lines, Figs. 3 and 4. The other arm of the lever D is pivoted to the plate C at *b*, so that as the plate C is turned the lever D will turn with it. Two other pins, *i* and *f*, are shown on the lever, but are not essential, and are not to be here considered. The two pins *a* and *d* grasp the rim *n* as the plate C turns in the direction denoted by the arrow; the pivot *b* tending to

carry that end of the lever forward forces the pin *d* against the inside and the pin *a* hard down upon the outside of the rim *n*. It will be understood that the lever has no bearing at the shaft; hence the pin *d* becomes the fulcrum and the pin *a* the other end or arm of the lever; therefore, when the plate C turns, the lever thus grasping the rim will cause the shaft or plate B to turn with it, but when the plate C turns in the other direction the rim is not grasped between the pins *a* and *d*, but passes freely over the rim; therefore, if a reciprocating movement is imparted to the plate C—that is, a partial rotation and return—it will engage and turn the plate B through one movement and return free from the plate B to re-engage for another partial rotation. This arrangement would be that required for an intermittent feeding device.

To insure the return of the plate C without engaging the lever with the rim, I apply a spring, F, which forces the lever back and prevents its engagement on the return. To prevent its engagement in either direction, when desired, I arrange a cam, *r*, having a head, R, or other device outside of the plate by which it may be turned, and which, when turned, as seen in Fig. 4, throws the lever forward to prevent the engagement with the rim, but turned as in Fig. 3 allows the lever to come back into connection with the rim.

### Claim.

1. The plate C, carrying the lever D, combined with the plate B, the said lever and plate constructed to engage or disengage with each other, substantially as described.

2. In combination with the subject-matter of the first clause of claim, I claim the cam *r* to throw the lever out of connection with the plate B, substantially as and for the purpose described.

WESTEL E. HAWKINS.

Witnesses:

L. M. HUBBARD,  
DELANO W. IVES.