

V. M. R. BRANCH.

Churn.

No. 81,589.

Patented Sept. 1, 1868.

Fig. 2.

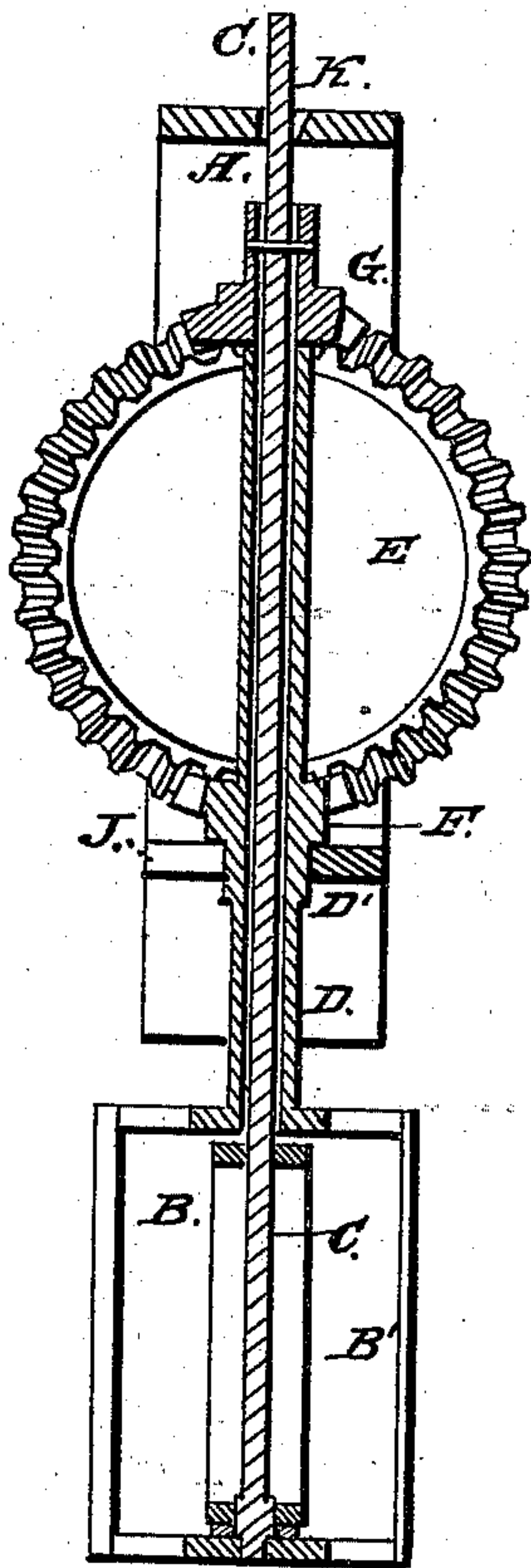


Fig. 1.

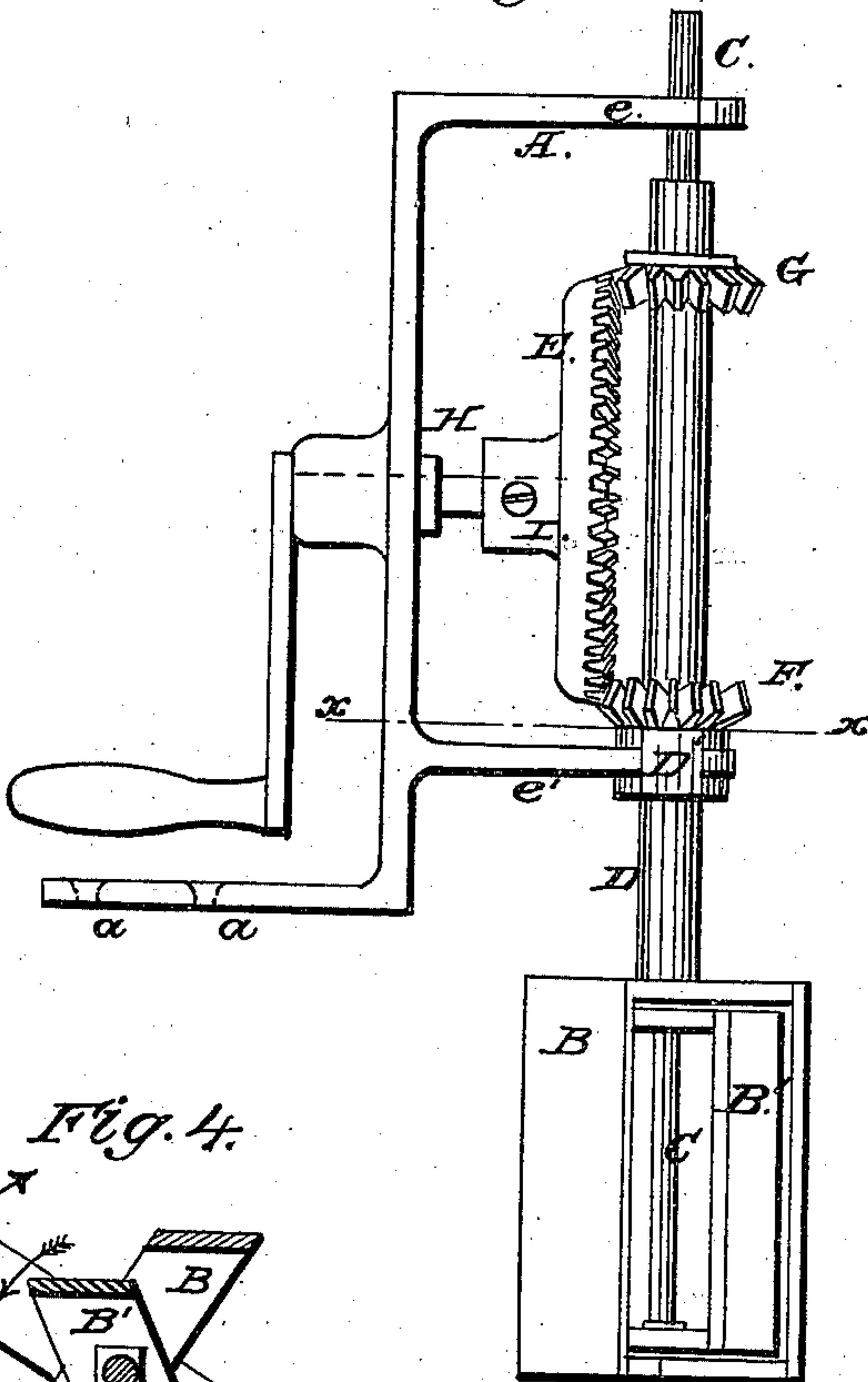


Fig. 4.

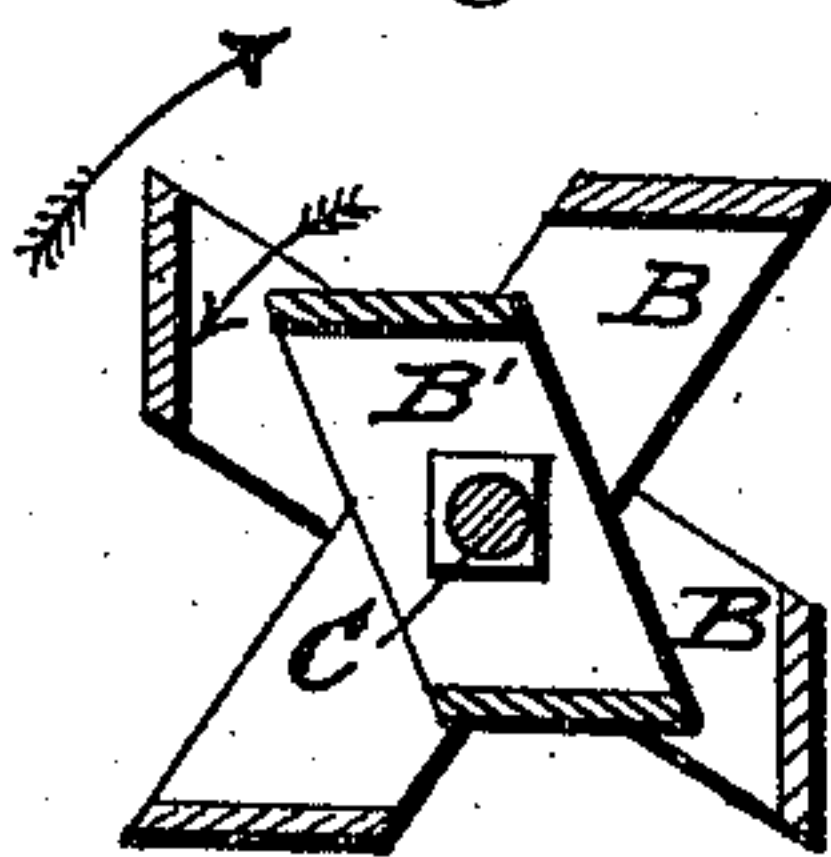
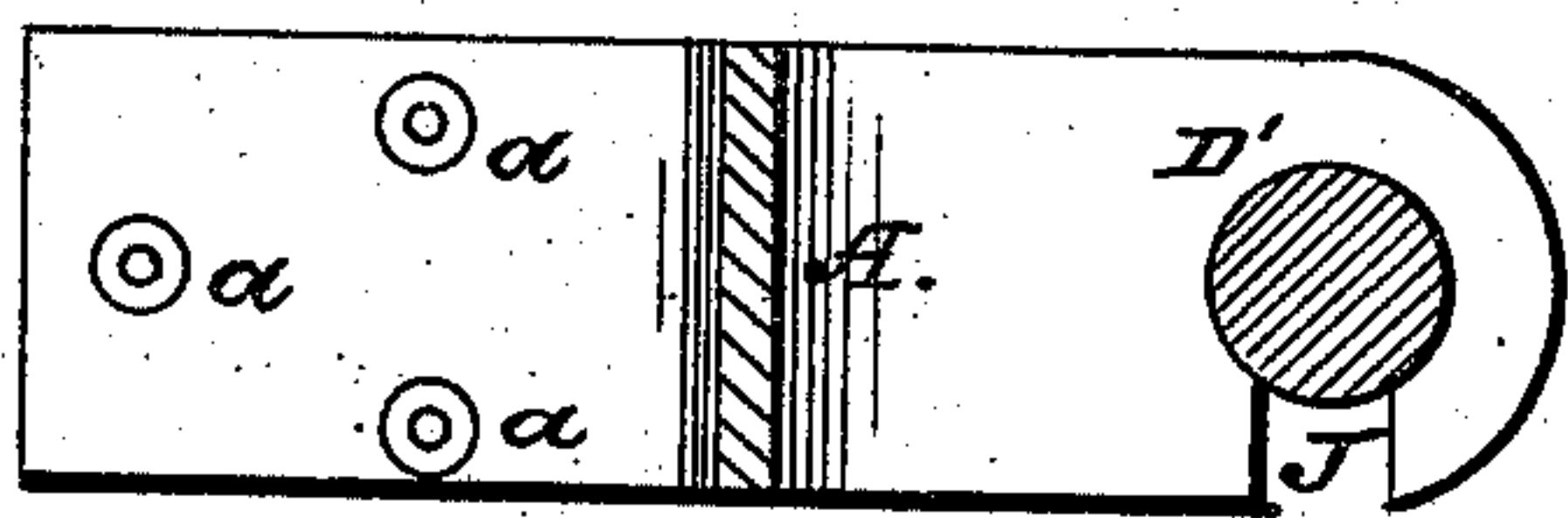


Fig. 3.



Witnesses,
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United States Patent Office.

VICTOR M. R. BRANCH, OF RICHMOND, VIRGINIA.

Letters Patent No. 81,589, dated September 1, 1868.

IMPROVEMENT IN CHURNS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, VICTOR M. R. BRANCH, of Richmond, in the county of Henrico, and State of Virginia, have invented a new and useful Improvement in Churns; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation.

Figure 2 is a vertical section through the line *y y* of fig. 1.

Figure 3 is a horizontal section through the line *x x* of fig. 1.

Figure 4 is cross-section of the dashers.

The nature of my invention consists in constructing the frame, which holds the gearing and dashers, in such a manner that they can be easily removed when desired.

In the drawings, A represents the frame. The back is vertical, and has two arms or brackets, *c* and *c'*, which extend forward at right angles to the back, and support the shafts and dashers.

The frame A at the lower end extends back horizontally at right angles to the back of the frame. In this are holes, *a a a*, for screws or bolts, by which the frame is secured to the churn or table.

The brackets hold the shafts C D. The shaft D is a hollow one, and has within, and extending above and below it, a shaft, C, which extends from a little above the bracket on the top of the frame A to the bottom of the dashers.

On and near the top of the shaft C is secured a small bevel-gear wheel, G.

To the hollow shaft D is secured a bevel-gear wheel, F, of the same size of the wheel G, on the bottom of which is a shoulder, which rests on the lower bracket of the frame A.

Two dashers are used, one revolving within the other, and each in opposite directions. The inner one, B', is secured to the shaft C, and the outer one, B, is secured to the shaft D.

Equidistant between the bevel-gear wheels F and G, I place a shaft, H, its bearings being the vertical back of the frame A. Near the end of the shaft is a large bevel-gear wheel, E, which meshes into the small gear-wheels F and G.

The bevel-wheel E is held firmly to the shaft H by a set-screw, I, which passes through a boss on the back of the bevel-wheel E. This boss does not extend quite back to the frame A, but there is a space left to allow the bevel-wheel E to be slipped back when it is loosened on the shaft H.

On the outer end of the shaft H is a crank, by which motion is imparted to the mechanism.

The hollow shaft D has on it, just below the bevel-wheel F, a shoulder, D', which fits into and revolves in the circular opening in the lower bracket of the frame. This bracket has an aperture or slot, J, cut into one side, the width of which is the same as the diameter of the shaft D, but not as wide as the diameter of the shoulder D' of the shaft D, as seen at J, fig. 3.

The opening K in the bracket, on the top of the frame A, through which the shaft C passes, is bevelled from the top, on the opposite side of the bracket to that in which the slot J is cut in the lower bracket.

To remove the dashers from the churn, the operation is as follows:

The set-screw I is loosened, and the bevel-gear wheel E slipped back from the other bevel-wheels, F and G. The dashers and shafts are then raised high enough to bring the shoulder D' of the shaft D above the lower bracket of the frame A. The shaft D can now be removed through the aperture J of said bracket. One side of the opening K in the top bracket being bevelled, allows the shaft C to be inclined, and it can then be drawn out of the top bracket, thus becoming entirely free from the frame A.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination of the external dasher B with the internal dasher B', when constructed as shown and described, and revolving in opposite directions, as specified, and for the purpose set forth.

2. The combination of the dasher B, hollow spindle D, and pinion F, with the dasher B', spindle C, and pinion G, all as and for the purpose specified.

VICTOR M. R. BRANCH.

Witnesses:

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