

W. N. RHODES.
Machinery for Operating Churns.

No. 222,076.

Patented Nov. 25, 1879.

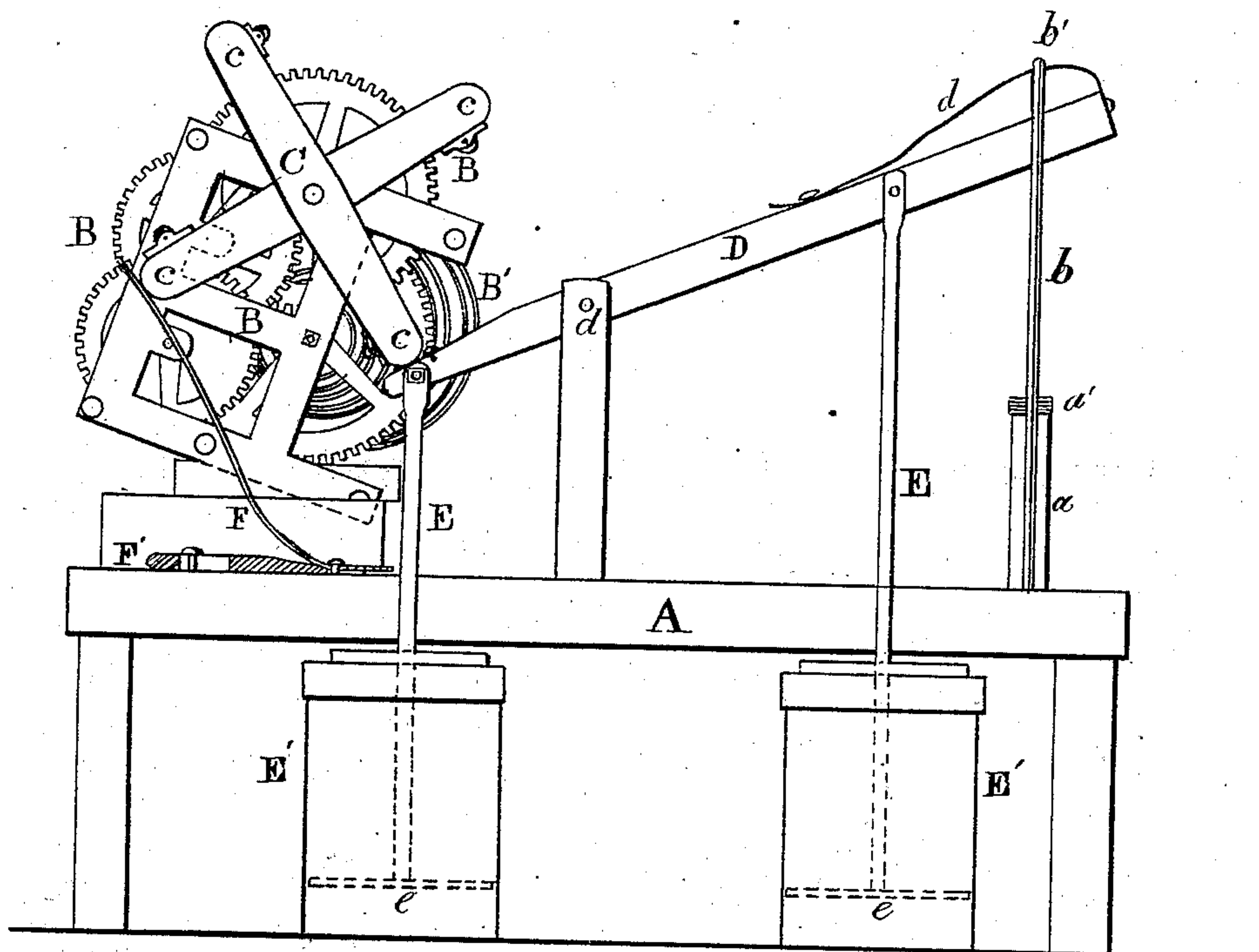


Fig. 1.

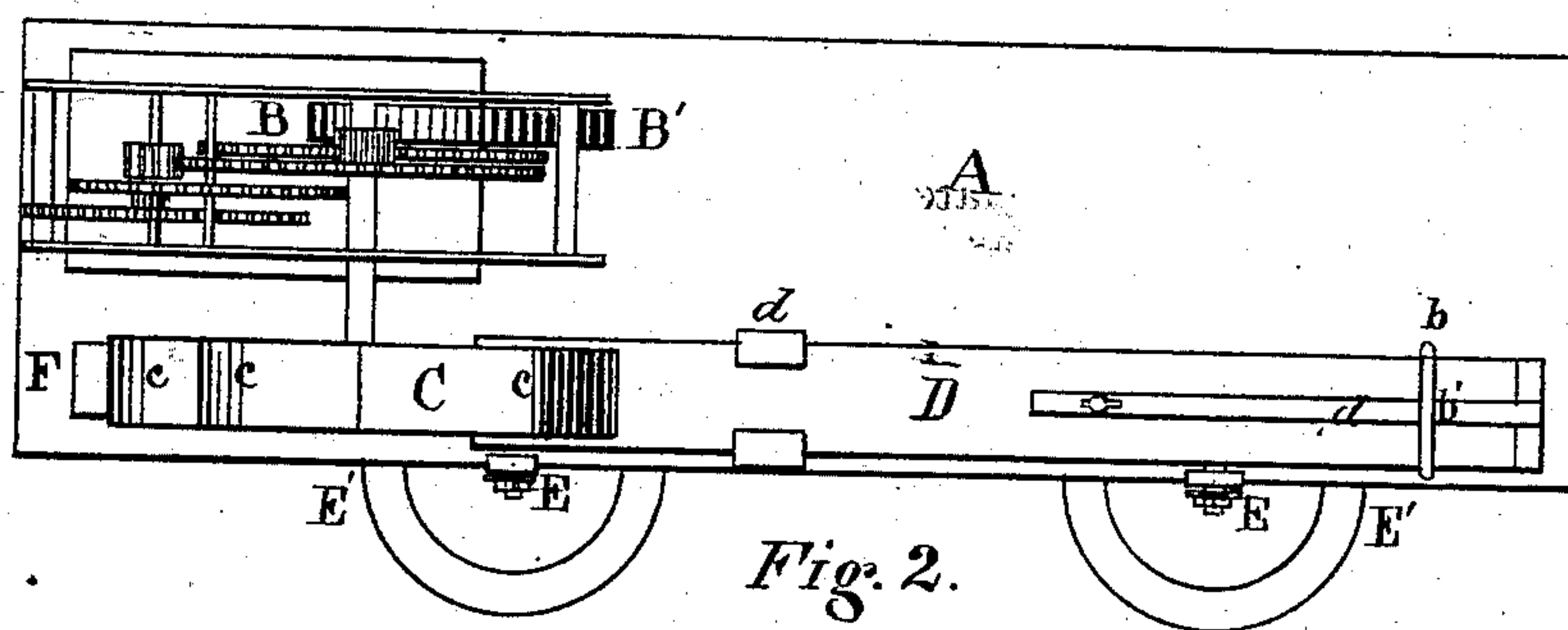


Fig. 2.

Witnesses

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WEBSTER N. RHODES, OF MEMPHIS, TENNESSEE.

IMPROVEMENT IN MACHINERY FOR OPERATING CHURNS.

Specification forming part of Letters Patent No. 222,076, dated November 25, 1879; application filed June 20, 1879.

To all whom it may concern:

Be it known that I, WEBSTER N. RHODES, of Memphis, in the county of Shelby and State of Tennessee, have invented certain Improvements in Machinery for Operating Churns, of which the following is a specification.

This invention relates to improvements in machinery for operating churns or other light work by reciprocating movement produced by the recoil of springs; and it consists in the application of an intermittent tappet to the end of a lever, as will be hereinafter more fully described.

In the drawings, Figure 1 is a side elevation, and Fig. 2 a plan view, of the machine.

A represents the bed-plate on which the machinery is supported. B is a train of wheels, by which the power of a mainspring, B', is communicated to the tappet C, which has four arms, *c c c c*, intersecting each other. This train of wheels may be of any desired number to communicate motion from the spring B' to the tappet C, and all of which is in common use.

D is a lever, supported by its fulcrum *d*, which is a standard on base or bed plate A. The short arm of lever D is beveled, so as to be tangential to the sweep or curve of the arms *c c* of the tappet C, so that as the latter is caused to revolve the rounded ends of the arms *c c* will depress the end of lever D, but glide over it; and to effect this with the smallest amount of friction, rollers are placed on the ends of the arms and on the lever. The

long arm of lever D is guided between upright rods *b*, having a curved top, *b'*. On top of the long arm of lever D is a spring, *d*, which, as the arm rises, strikes against the curved top *b'*, and is caused to recoil and assist the descent of the arm.

A standard, *a*, has on it a spring, *a'*, which lightens the fall of the arm.

On each arm of lever D is attached a connecting-rod, E E, which has below a plunger or dasher of a churn, *e e*, and the churns E' E' are so placed that the connecting-rods E and dashers *e e* work easily in them as the arms of the lever work up and down.

In front of the tappet-arms *c c c c* there is a flat spring, F, so arranged by an adjusting-wedge, F', that should the tappets revolve too rapidly the spring F can be caused to bear against the tappet-arms as they fly off from the end of the lever and check the velocity of the gearing.

I claim—

In machinery for operating churns and other light devices by spring-motors, the combination of the train of gear-wheels moving tappet-arms C, having anti-friction rollers, a lever with corresponding anti-friction bearings, the pitman or connecting rods, the spring F, guide-rods *b*, and springs *d a'*, all substantially as and for the purpose described.

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Witnesses:

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