

E. S. WILLIAMSON'S

Machine for Operating Churns.

98454

PATENTED DEC 28 1869

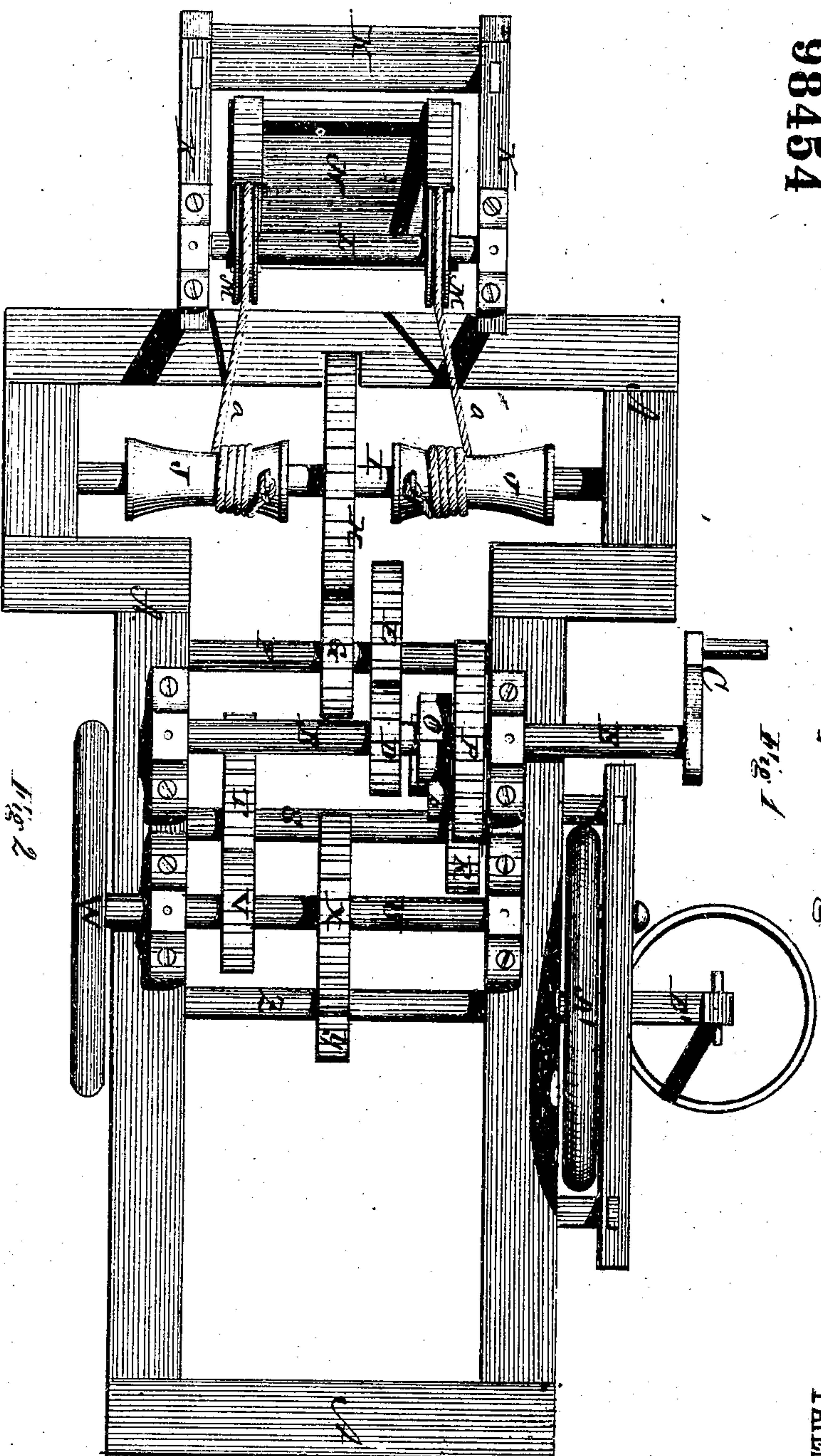


Fig. 1

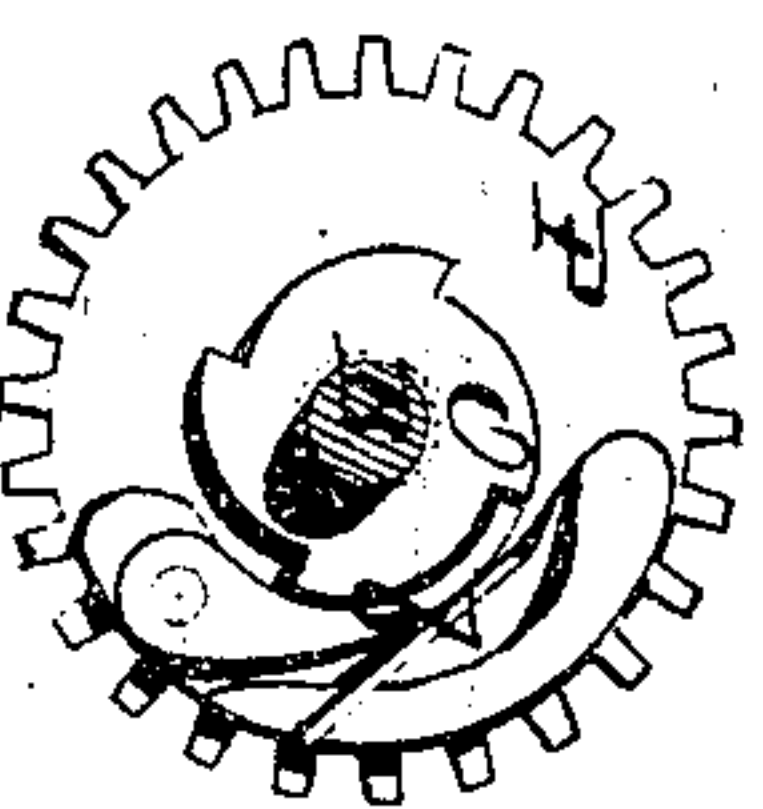


Fig. 2

Witnesses.

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Inventor.

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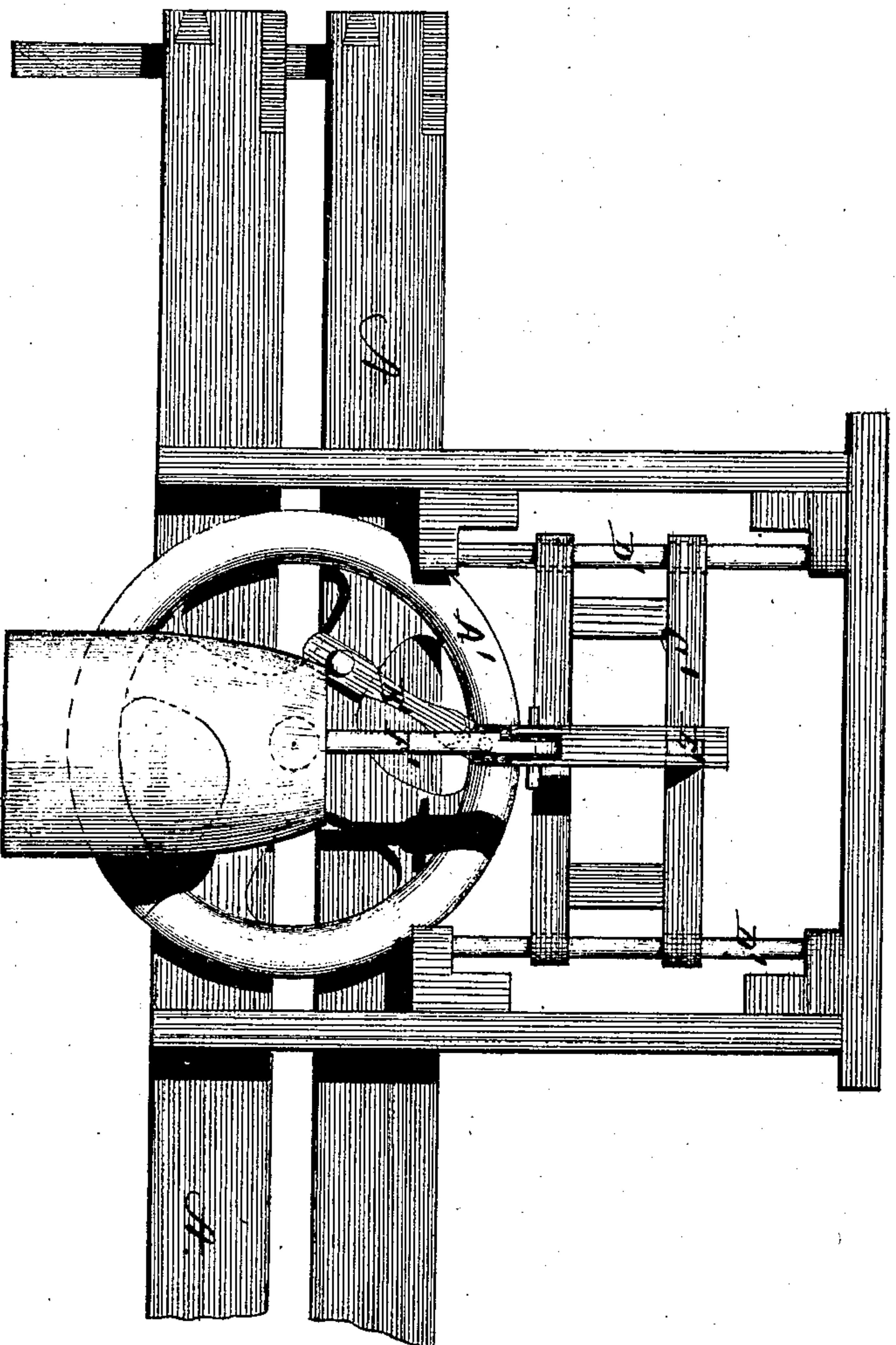
Robert Thomson

Atty.

98.1454

C. S. Williamson's
Machine for Operating Churns.

Fig. 3



Witnesses

James J. King
J. S. C. C. C.

Inventor:

C. S. Williamson
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United States Patent Office.

C. S. WILLIAMSON, OF COVERT, NEW YORK.

Letters Patent No. 98,454, dated December 28, 1869.

IMPROVEMENT IN MACHINERY FOR OPERATING 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, C. S. WILLIAMSON, of Covert, in the county of Seneca, and in the State of New York, have invented certain new and useful Improvements in Machines for Operating Churns; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in the construction and arrangement of a "machine for operating churns," by the use of which a person may go about any other business while the operation of churning is going on.

In order to enable others skilled in the art to which my invention appertains, to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawings, in which—

Figure 1 is a plan view of my machine;

Figure 2 is a side view of the cog-wheel, and the parts that connect the churning-mechanism with the balance of the machine; and

Figure 3 is a side view of a part of the machine.

A represents the frame of the machine, constructed of any suitable material, and of any size desired.

Across this frame, in suitable journal-boxes, is placed a shaft, B, having at one end a crank, C, which shaft is, inside the frame, provided with a pinion, D, that gears with a cog-wheel, E, placed on a shaft, F, which also has its bearings in suitable journal-boxes in the frame A.

The shaft F is provided with a pinion, G, that gears with a large cog-wheel, H, on a shaft, I, also in the frame A; this latter shaft I being, on each side of the wheel H, provided with a spool, J, to each of which is attached a rope or chain, *a*.

To the end of the frame A is attached another frame, K, of any desired height, having at its top a shaft, L, which is provided with two pulleys, M M, over which the ropes or chains *a a* pass, said ropes being attached to a box, N, in which weights, to any desired amount, may be placed.

On the shaft B is placed a small toothed wheel, O, into which gears a spring-pawl, *b*, attached to the side of cog-wheel P, that is placed loosely on the same shaft.

The toothed wheel O and pawl *b* are so arranged that when the crank C is turned so as to raise the weighted box N, the pawl will not act, but if the shaft B be turned in the opposite direction, then the pawl *b*, catching in the teeth on the wheel O, causes the cog-wheel also to revolve with it.

This wheel P gears with a pinion, R, on the shaft S, which shaft is provided with a cog-wheel, T, that communicates motion to the shaft U, by means of the pinion V on the same.

On the end of the shaft U is a fly-wheel, W, and, by means of the cog-wheel X and pinion Y, motion is communicated to the shaft Z.

One end of this latter shaft Z is provided with a wheel, A', which, by means of a pitman, B', causes the frame C' to move up and down. The ends of the frame C' surround the upright rods D', which thus serve as guides for the same.

An arm, E, projects from the frame C', and to this arm the rod F' of the churn-dasher is pivoted, so that by the motion of said frame, the churn will be readily operated.

When it is desired to use this machine, sufficient weights are placed in the box N, so that when said box is, by means of the crank C, raised to the top of the frame K, the weight alone will cause the box to descend, and, consequently, turn the whole machine, giving to the churn-dasher the necessary rapid up-and-down motion. It is only necessary to wind the machine up, when it will work itself, without attendance, until run down.

By proper arrangement of the different parts, this can be timed so as not to occur before the churning is completed.

Having thus fully described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

The within-described machine for operating churns, constructed and arranged substantially in the manner herein set forth.

In testimony that I claim the foregoing, I have hereunto set my hand and seal, this 19th day of July, 1869.

C. S. WILLIAMSON. [L. s.]

Witnesses:

A. MURPHY,
GEO. W. COLE.