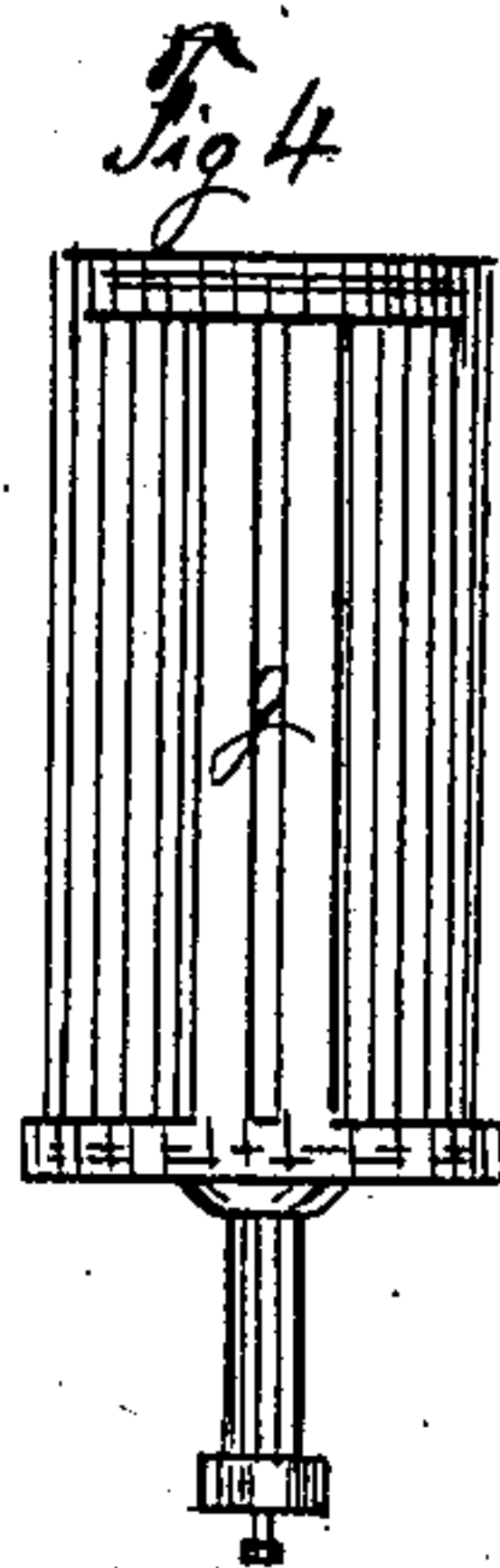
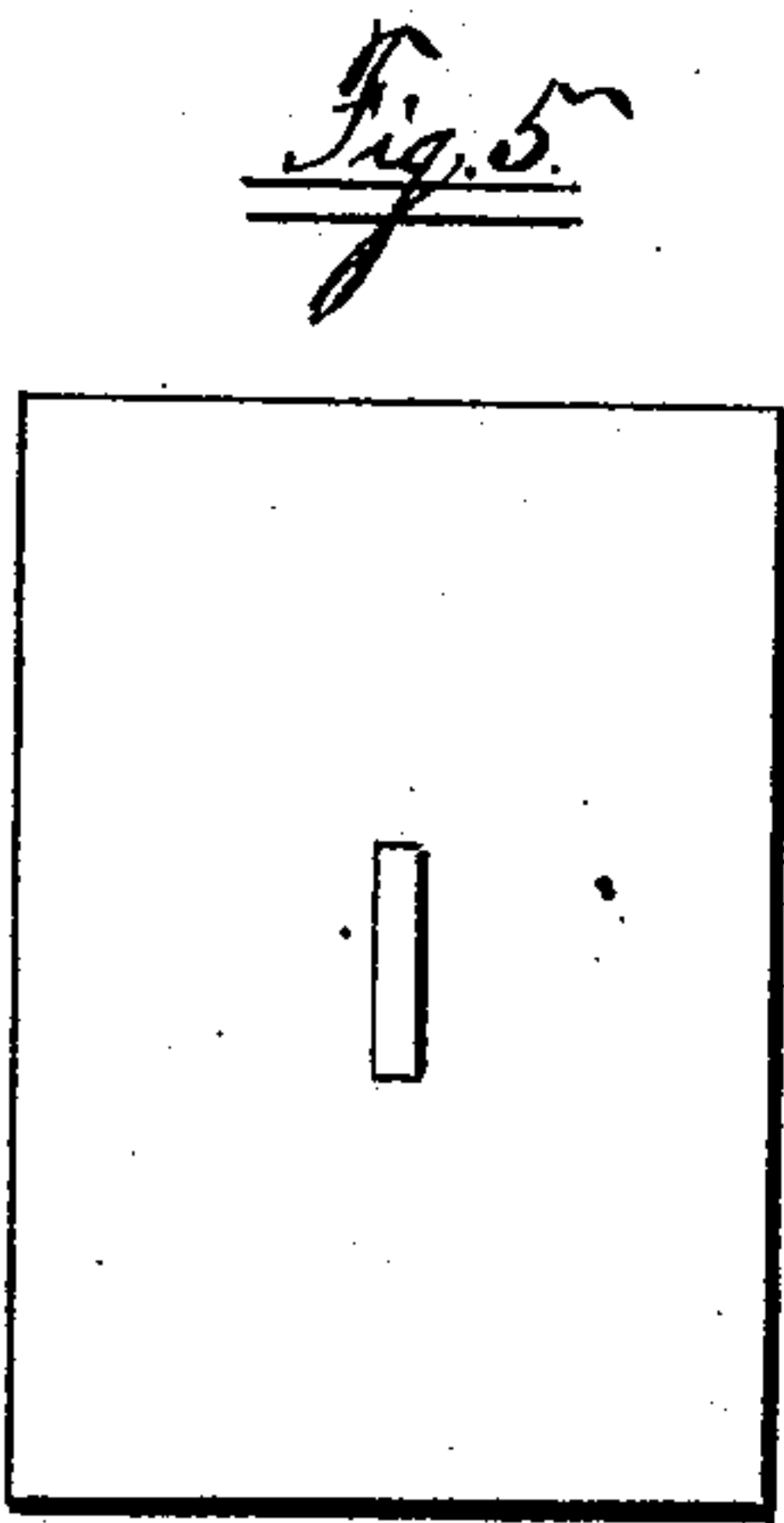
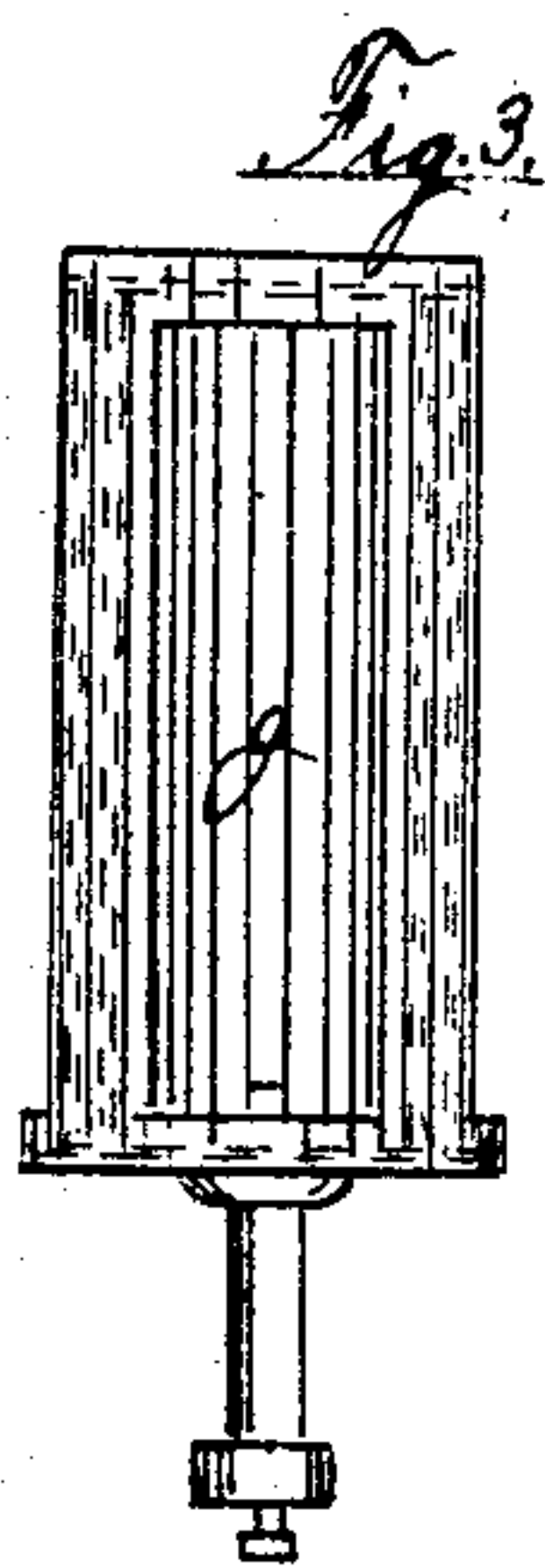
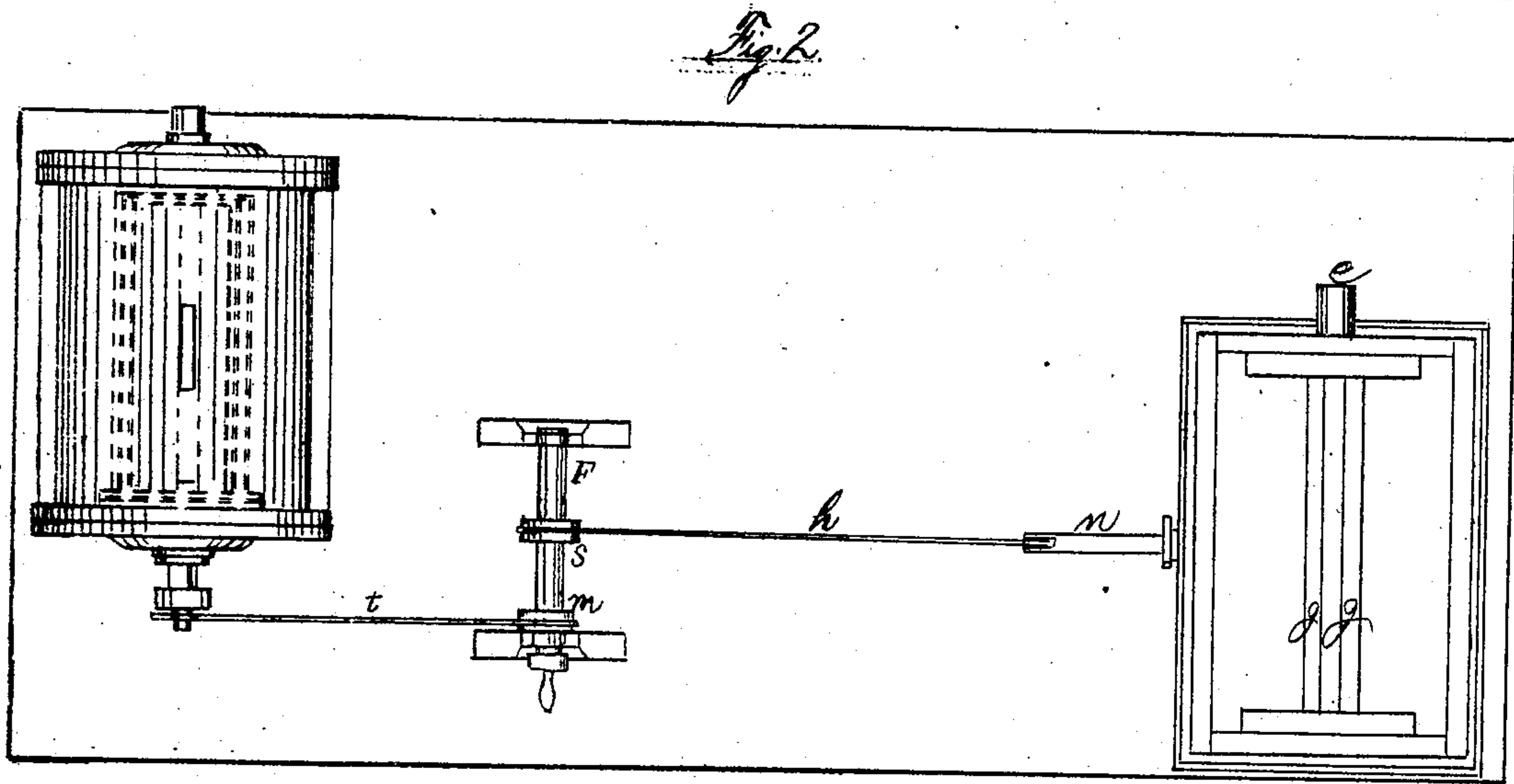
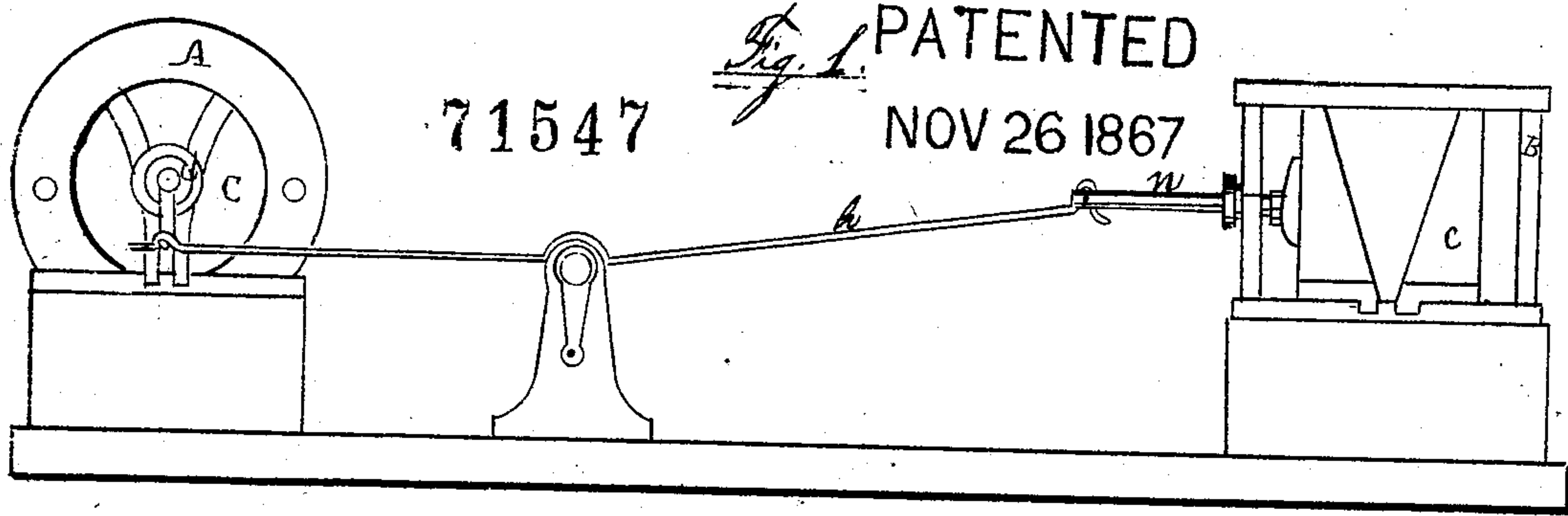


W.M. Stevenson's Non Pressure Cut off Valve.



Witnesses. { Jno. A. Collins
J. White

Inventor. { Wm. M. Stevenson
Per
J. H. Alexander
Attys.

United States Patent Office.

WILLIAM M. STEVENSON, OF SHARON, PENNSYLVANIA.

Letters Patent No. 71,547, dated November 26, 1867.

IMPROVEMENT IN STEAM CUT-OFF VALVES.

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, WILLIAM M. STEVENSON, of Sharon, in the county of Mercer, and State of Pennsylvania, have invented certain new and useful Improvements in Non-Pressure Cut-Off Valves; and I 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, which form a part of this specification. In the annexed drawings—

Figure 1 represents a side elevation with the ends of the two valve-boxes removed.

Figure 2 is a plan view of my machine.

Figures 3 and 4 represent the two openings in the valve-seat.

Figure 5 is a plan of the top of valve-boxes, with openings for the admission of steam.

The letters A and B represent a cylindrical and also a square or quadrilateral valve-box, these being the only forms in which my invention or improvement can be used. C designates a box or chest placed inside of valve-box B, having a space between it and the interior of the valve-box, for the escape of exhausted steam, which will be discharged through a pipe, *e*, at the end of said valve-box B. In the bottom of valve-box B there are two slots *g*, designed to admit the steam into the cylinder. F represents a shaft having on it the two eccentric wheels *m* and *s*. The said shaft rests on studs attached to the cylinder. *n* represents an arm, the inner end of which is fastened to box C, and after passing through the side of valve-box B, is connected at its outer end to the rod *h*, the said rod at its outer end being looped around the eccentric *s*. It will be remarked that as the shaft F revolves, the eccentric *s* by means of its connection with box C, as above described, will by regular alternation bring the opening at the bottom of C opposite to the openings *g g*, through which steam enters the cylinder. It will be further seen that as the steam to drive the piston is received through one of the openings *g*, the said opening will be closed as the piston returns, and the other opening *g* by the action of C, will be uncovered for the purpose of letting out the exhaust steam. It will be observed that the opening at the bottom of box C is of the same width as the slots *g g*, through which the steam enters the cylinder. The cylindrical valve-box A is constructed upon the same principle with B, except that the box C is made circular at its ends in order to fit the bore of valve-box A. The end of box C is furnished with neck *d*, with a crank attached to said neck. To this crank is fastened a rod *t*, the opposite end of said rod being looped over the eccentric *m*. On the end of shaft *s* is a second crank, to which the piston is attached. By the action of the two rods *t* and *h*, the steam will be let in the alternate ends of the cylinder through the opening in the top of boxes A and B, and the engine thus kept in motion.

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

The arrangement of the valve-boxes A and B, boxes C C, and the eccentrics *m* and *s*, with their rods *t* and *h*, the whole constructed and operating as herein specified.

In testimony that I claim the foregoing as my own, I affix my signature in presence of two witnesses.

WM. M. STEVENSON.

Witnesses:

A. B. LOGAN,

JOHN A. PORTER.