

(No Model.)

H. MOON.
ROTARY STEAM ENGINE.

No. 322,389.

Patented July 14, 1885.

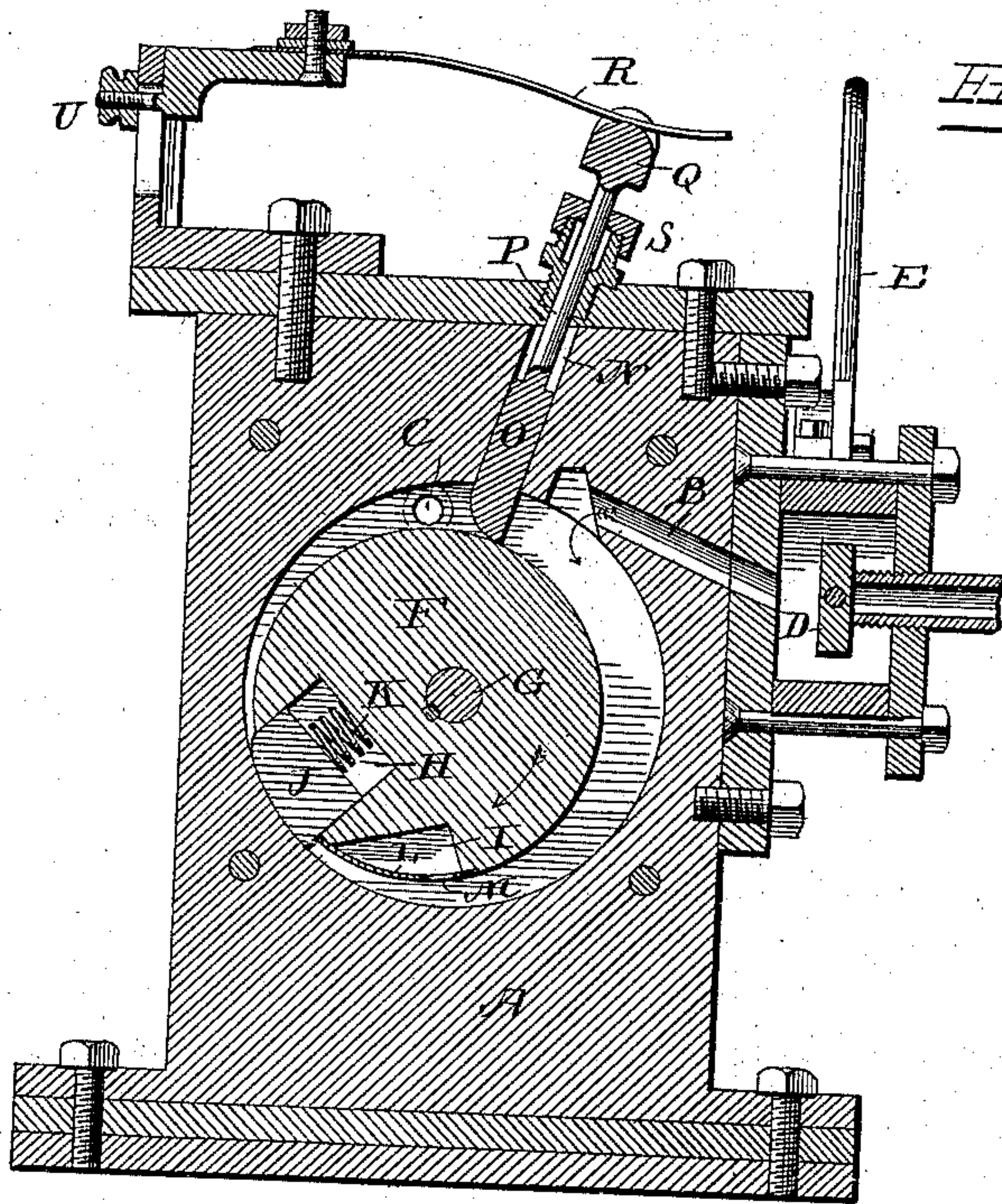


Fig. 1.

Fig. 3.

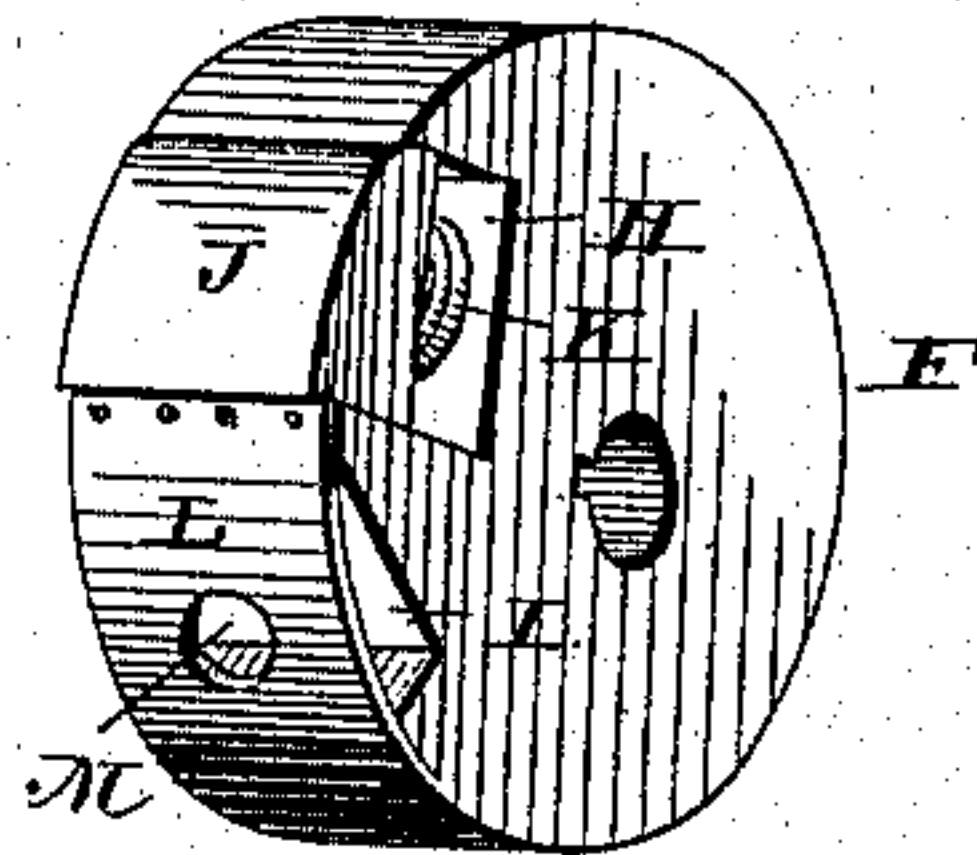
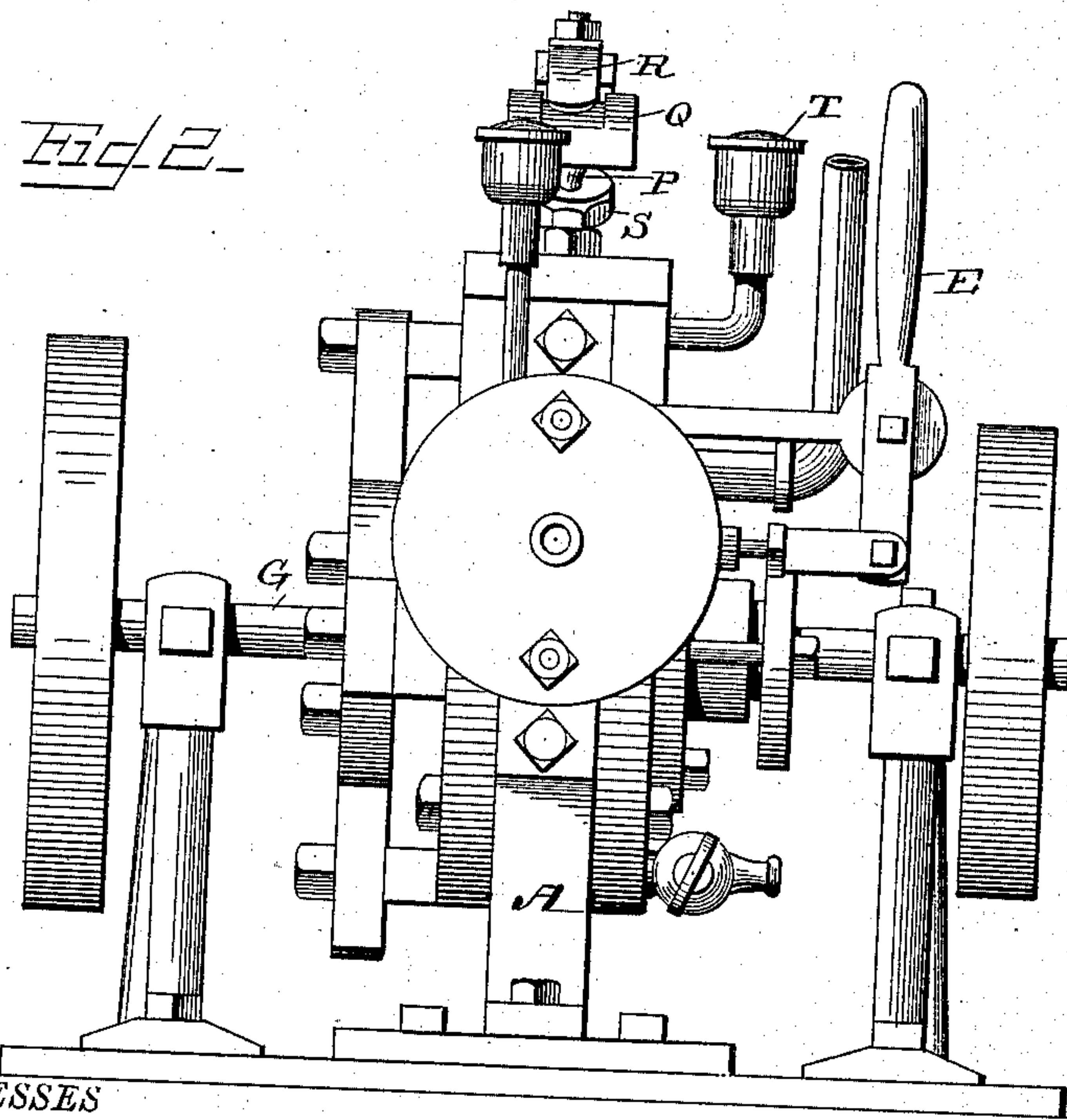


Fig. 2.



WITNESSES

F. L. O'Connell
Wm. H. Denton

INVENTOR,

Hermon Moon
By *Louis Bagger & Co.*
Attorney

UNITED STATES PATENT OFFICE.

HERMON MOON, OF GROVE CITY, PENNSYLVANIA, ASSIGNOR OF ONE-HALF
TO WILLIAM MELLOR, OF SAME PLACE.

ROTARY STEAM-ENGINE.

SPECIFICATION forming part of Letters Patent No. 322,389, dated July 14, 1885.

Application filed May 20, 1885. (No model.)

To all whom it may concern:

Be it known that I, HERMON MOON, a citizen of the United States, and a resident of Grove City, in the county of Mercer and State of Pennsylvania, have invented certain new and useful Improvements in Rotary Steam-Engines; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a vertical cross-section of my improved engine taken through the cylinder. Fig. 2 is a side view of the complete machine, and Fig. 3 is a perspective detail view of the piston-wheel.

Similar letters of reference indicate corresponding parts in all the figures.

In the drawings, A denotes the cylinder-supporting frame which has the steam-induction and eduction ports marked, respectively, B and C. Induction-port B has a regulating-valve, D, which is operated by a hand-lever, E. At the bottom of the cylindrical steam-chamber is the usual cock or faucet, which is adapted to let off the priming or water of condensation. The piston-wheel F is of the construction shown in Fig. 3, and is keyed eccentrically upon the shaft G. This wheel has two recesses, H and I, made in its periphery, recess H is provided with a block, J, which has a spiral spring, K, between it and the body of the wheel. A metal band, L, the width of wheel F, spans circumferentially across the recess I, and has a hole or aperture, M, for the admission of steam into the recess. The frame A has a recess or way, N, in its upper part, which is provided with a sliding latch or cut-off, O, which is of the same width as piston-wheel F, and has one of its lower edges rounded or beveled. This latch has an upwardly-extending rod, P, upon the upper end of which is a cross-head, Q. A flat spring, R, is adjustably secured at one end to the frame and bears downwardly upon cross-head, Q, thus keeping the lower edge of the latch

in contact with the periphery of the piston-wheel. Rod P is inserted through a stuffing-box, S.

T denotes an oil-cup, which is suitably attached to the frame, and connected by a pipe or conduit to the recess N, so as to lubricate the cut off. Shaft G projects through similar stuffing-boxes to those marked S, said boxes being secured to each side of the cylinder. Shaft G also has the necessary bearings at its outer ends.

In order to provide for a continuous even pressure upon the sliding latch or cut-off, I make the spring R, which bears upon the cross-head at the upper end of the latch-rod, adjustable up or down by means of a set-screw, U, inserted through the bracket to which the spring is attached and working through a slot in the head or block of the spring, so that by lowering the spring the pressure upon the latch-rod may be increased to compensate for the wear at the beveled lower end of the latch where this is in contact with the rotary disk or piston-wheel.

From the foregoing description, taken in connection with the drawings hereto annexed, the operation of the machine will be readily understood. The steam, being introduced into port B, passes through aperture M into recess I and turns piston-wheel F in the direction of the arrow. Block J, being always pressed against the inside of the cylinder, prevents the steam from escaping past this point, and the latch O, being kept in contact with the periphery of piston-wheel F, prevents the steam from passing in that direction. Thus all the force of the steam is applied upon the lower face of recess I, thereby turning the wheel. When the piston-wheel F revolves and the recess I comes up even with exhaust-port C, the steam is exhausted.

Having thus described my invention I claim and desire to secure by Letters Patent of the United States—

The combination of the stationary steam-cylinder having the oblique recess N in its upper part, the rotary piston-wheel con-

structed as described, the sliding latch or
cut-off having a rod working through a stuff-
ing-box in the upper part of the frame, the
cross-head at the upper end of said rod, and
5 the spring bearing with its free end against
said cross-head, substantially as and for the
purpose shown and set forth.

In testimony that I claim the foregoing as
my own I have hereunto affixed my signature
in presence of two witnesses.

HERMON MOON.

Witnesses:

DAVID KARR,
J. R. DAVIDSON.