

George L. Gavett's
Improvement in Steam Engines.

No. 121,354.

Patented Nov. 28, 1871.

Fig. 1.

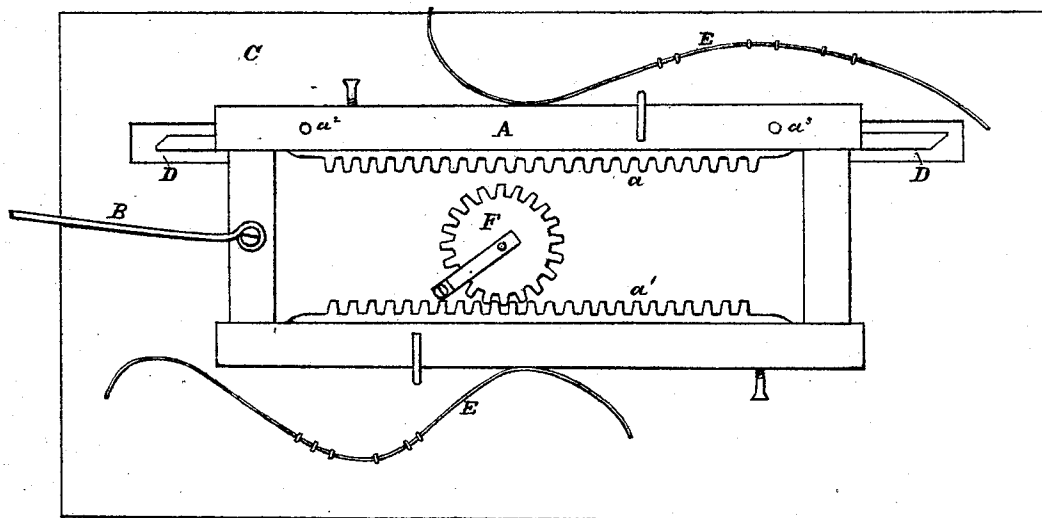
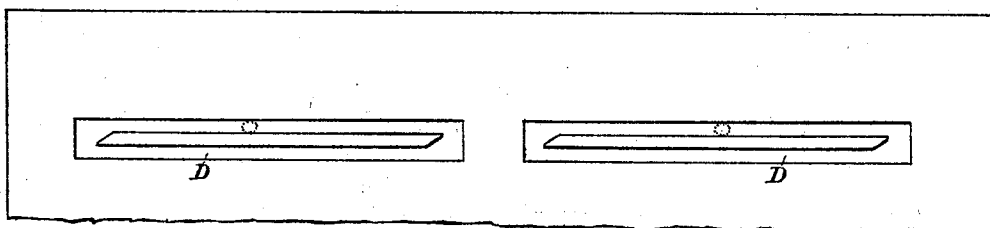


Fig. 2.



Witnesses,

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UNITED STATES PATENT OFFICE.

GEORGE L. GAVETT, SANDSTONE, MICHIGAN.

IMPROVEMENT IN DEVICES FOR CONVERTING RECIPROCATING INTO ROTARY MOTION.

Specification forming part of Letters Patent No. 121,354, dated November 28, 1871.

To all whom it may concern:

Be it known that I, GEORGE L. GAVETT, of Sandstone, in the county of Jackson and in the State of Michigan, have invented an Improvement in Steam-Engines; and do hereby declare that the following description, taken in connection with the accompanying drawing hereinafter referred to, forms a full and exact specification of the same, wherein I have set forth the nature and principles of my said improvement, by which my invention may be distinguished from others of a similar class, together with such parts as I claim and desire to secure by Letters Patent.

My invention relates to an improvement in steam-engines; and the nature thereof consists in so combining a slotted frame, mangle-rack, piston-rod, pinion, and springs as to transfer the full power of the steam to the said pinion, and to cause the reciprocating rectilinear motion of the mangle-rack to produce continuous rotary motion of the pinion.

In the accompanying drawing, which illustrates my invention and forms a part of the specification thereof, in which similar parts are designated by corresponding letters—

Figure 1 is a top view, and Fig. 2 is a plan view of slots.

The construction, operation, and relative arrangement of the parts of my invention are as follows: The frame A, connected to the piston-

rod B, and provided with the racks a^1 and the lugs a^2 and a^3 , is so mounted upon the frame C that it may be made to reciprocate backward and forward. The lugs a^2 a^3 work in the slots D cut in the bed-plate, and allow the frame A to be moved laterally to the right or left by the action of the springs E. By means of this arrangement of the slots and rack-frame continuous rotary motion of the pinion F is produced and the full force of the stroke of the piston-rod preserved in the manner following, to wit: When in the position indicated in Fig. 1 the rack a^1 engages with the pinion, but upon being forced forward the full length of the stroke of the piston-rod the frame is moved laterally to the right by the action of the springs E, and the rack a engages with the pinion F.

Having thus described the construction and operation of my invention, I claim and desire to secure by Letters Patent—

The rack-frame A, racks a^1 , studs a^2 , spring E, wheel F, and slots D, when arranged, constructed, and operating together, as described.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 5th day of October, 1870.

GEORGE L. GAVETT. [L. s.]

Witnesses:

A. G. KNAPP,
M. B. PARK.

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