M. L. JACQUEMIN.

Valve Mechanism for Engines.

No. 219,950. Patented Sept. 23, 1879.

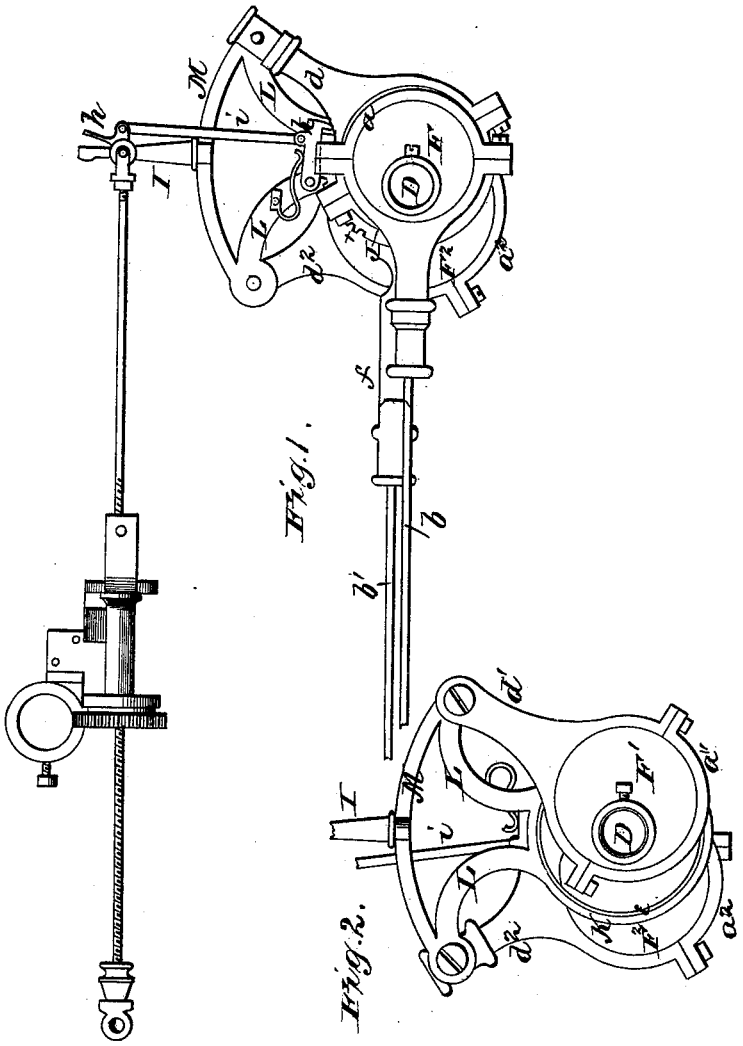

Fig. 1.

Fig. 2.

WITNESSES

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MATHIAS L. JACQUEMIN, OF COUNCIL BLUFFS, IOWA.

IMPROVEMENT IN VALVE MECHANISMS FOR ENGINES.

Specification forming part of Letters Patent No. **219,950**, dated September 23, 1879; application filed September 3, 1879.

To all whom it may concern:

Be it known that I, MATHIAS L. JACQUEMIN, of Council Bluffs, in the county of Pottawattamie, and in the State of Iowa, have invented certain new and useful Improvements in Valve-Regulating Mechanism for Engines; 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 valve-regulating mechanism for engines, as will be hereinafter more fully set forth.

In the annexed drawings the two figures represent opposite side views of my invention.

D represents the shaft upon which the eccentrics are placed for operating the slide and cut-off valves of an engine. F and F^1 are the eccentrics, which are, respectively, provided with the usual straps a a^1, and the strap a connected by a rod, b, with the slide-valves. The two eccentrics are both fast on the shaft, and between them is a third eccentric, F^2, which is made in one piece with or permanently attached to the eccentric F. The strap a^1 around the eccentric F^1 is provided with an arm, d^1. The eccentric F^2 has a strap, a^2, provided with an arm, d^2. Between the two eccentrics F^2 and F^1 is a ring, J, through which the shaft D passes, and this ring is provided with an arm, f, to which the rod b' is attached, for forming the connection with the cut-off valve. The ring J is formed with a shoulder, e, on which is placed another ring, K. This latter ring is formed with two curved arms, L L, the outer ends of which are pivoted to the arms d^1 d^2 of the straps a^1 a^2 on the eccentrics F^1 F^2, as shown. The outer ends of the arms L L are connected by a cross-bar, M, and to this cross-bar the arm or lever I is attached, forming the point outside the shaft for adjusting the parts. To the arm I is connected a thumb-piece, h, having a rod, i, which forms connection with a spring pawl or dog, k, that takes into notches x x, made in the periphery of the ring J, for holding the parts in any relative position desired.

By this mechanism I control the entire movement of the cut-off valve from the point where it lets on the full amount of steam through every intermediate point to the point where the power is entirely cut off, and this can be done at any time while the engine is in motion.

The engine may also, by this mechanism, be reversed at will, and is under the most perfect control of the engineer.

This device may be operated by hand and set at any point desired; or it may be connected to a governor, so as to be operated automatically for regulating the stroke of the cut-off valve.

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

The shouldered ring J and the ring K, with arms L L and cross-bar M, in combination with the eccentrics F F^1 F^2 and their straps and arms, substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 1st day of September, 1879.

M. L. JACQUEMIN.

Witnesses:
FRANK GALT,
C. L. EVERT.