

(No Model.)

S. PERKINS.

DEVICE FOR OPERATING THROTTLE VALVES.

No. 359,628.

Patented Mar. 22, 1887.

Fig. 1.

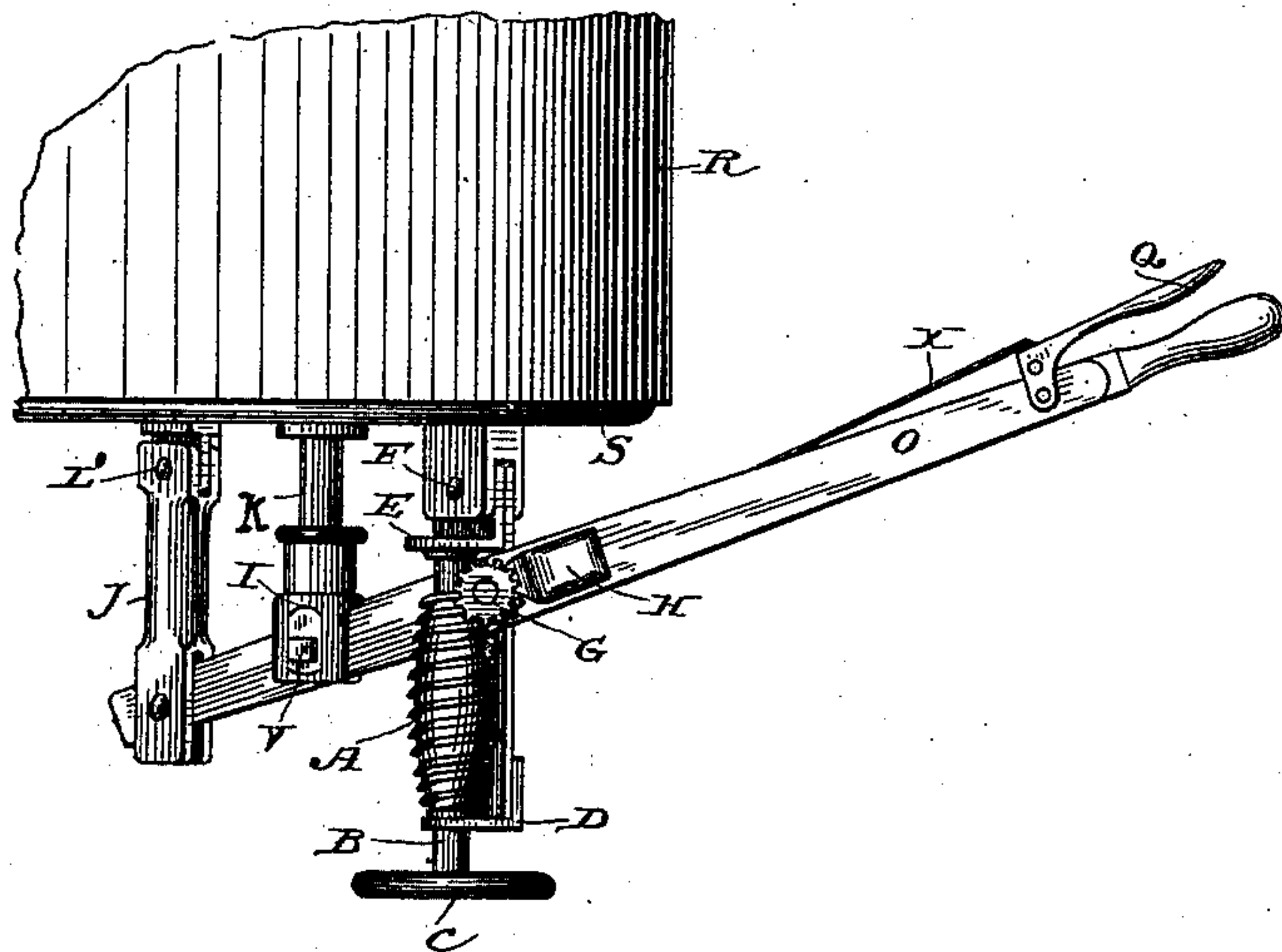
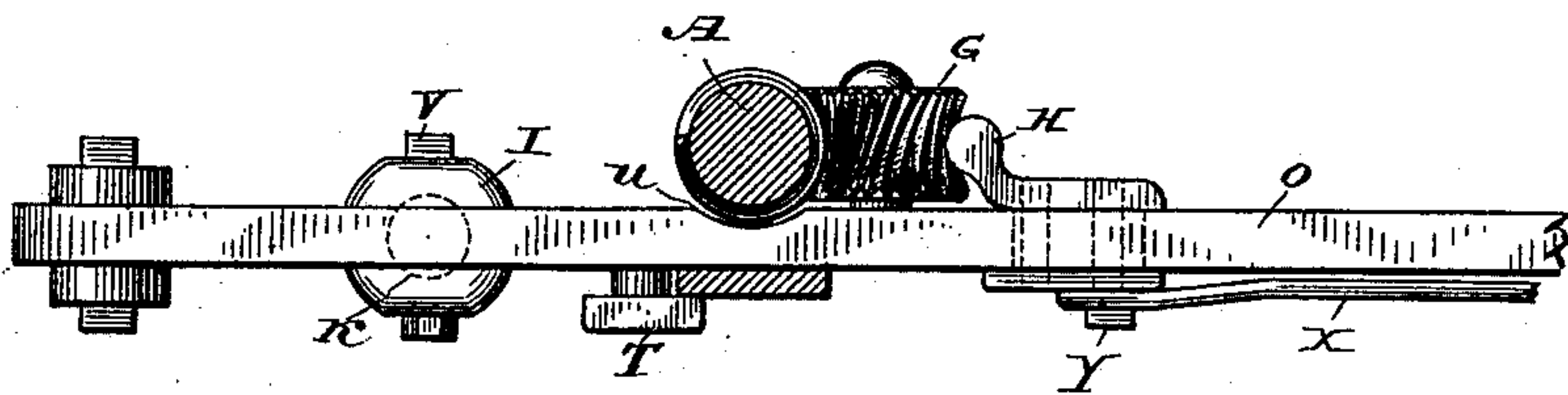


Fig. 2.



Witnesses

H. W. Cluett,
Fred. V. Fischer,

Inventor

Stephen Perkins,

By his Attorney

W. R. Stringfellow

UNITED STATES PATENT OFFICE.

STEPHEN PERKINS, OF NEW ORLEANS, LOUISIANA, ASSIGNOR OF ONE-HALF TO JOHN GILDING, OF SAME PLACE.

DEVICE FOR OPERATING THROTTLE-VALVES.

SPECIFICATION forming part of Letters Patent No. 359,628, dated March 22, 1887.

Application filed July 28, 1886. Serial No. 209,348. (No model.)

To all whom it may concern:

Be it known that I, STEPHEN PERKINS, a citizen of Canada, residing at New Orleans, in the parish of Orleans and State of Louisiana, have invented certain new and useful Improvements in Devices for Regulating Steam and Movement of Locomotives or Engines, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to an improvement in devices for operating throttle-valves of locomotives, the object of the invention being to provide a device of such construction that the valve may be evenly and gradually operated when it is desired to start a train, whereby all jerking when starting is obviated.

The invention consists in the features of construction and combinations of parts herein-after fully described, and pointed out in the claims.

In the drawings, Figure 1 is a top view of my improvement, and Fig. 2 is a horizontal section.

Referring to the drawings, A represents a barrel-shaped worm, which has an extension, B, at one end, on which is fitted a handle, C, whereby said worm may be turned. This worm A is journaled in a bracket, D, and said bracket is secured at one end within the bifurcated end of an arm, E, by means of a bolt, F, said arm being secured to the boiler, as shown. Extending outwardly from the end S of the boiler R to one side of the worm A is an arm, L, which is pivoted, as at L', and to the outer end of this arm is pivoted one end of a lever, O. This lever O has journaled to one of its sides a cog-wheel, G, which meshes with the worm A.

H represents a pawl, which is located on the side of the lever O, and is adapted to engage the cog-wheel G to prevent the accidental rotation of the said cog-wheel, thereby holding the lever O in its adjusted position.

For removing the pawl from engagement with the cog-wheel, I have provided a finger-lever, Q, pivoted near the outer end of the lever O, and connected with the pawl H by means of a rod, X.

K represents the valve-rod, said rod having a sleeve or collar, I, on its outer end, which sleeve or collar is bifurcated to receive the lever O, to which it is pivoted, as shown at V.

In operation, when it is desired to open or close the valve, the end of the finger-lever is depressed, which action, through the medium of the connecting-rod, withdraws the pawl from engagement with the cog-wheel. The handle of the worm is then turned, which revolves the worm and cog and causes the lever to be raised or lowered according to the direction of movement of said worm.

By the employment of the devices before described it will be seen that the valve-rod may be gradually and evenly operated, so that all jerking in starting or stopping a train will be avoided.

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

1. In a device for operating throttle-valves, the combination, with a valve-rod, of a pivoted lever connected therewith, a cog-wheel journaled to said lever, a pawl to engage said cog-wheel, and a journaled worm meshing with the cog-wheel, substantially as set forth.

2. The combination, with the valve-rod, of a pivoted lever connected therewith, a cog wheel journaled to one side of the lever, a pawl to engage the cog-wheel, a finger lever and rod connecting it with the pawl, and a journaled worm having a handle and meshing with the cog-wheel, substantially as set forth.

3. The combination, with the valve-rod, of a pivoted lever connected therewith, a cog-wheel journaled to the side of the lever, a pawl to engage said cog-wheel, a bracket, and a worm journaled therein and having an extension provided with a handle, as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

STEPHEN PERKINS.

Witnesses:

HENRY GRABAN,
JOHN GILDING.