

R. SCHEIDLER & J. H. McNAMAR.

Throttle-Valve.

No. 164,219.

Patented June 8, 1875.

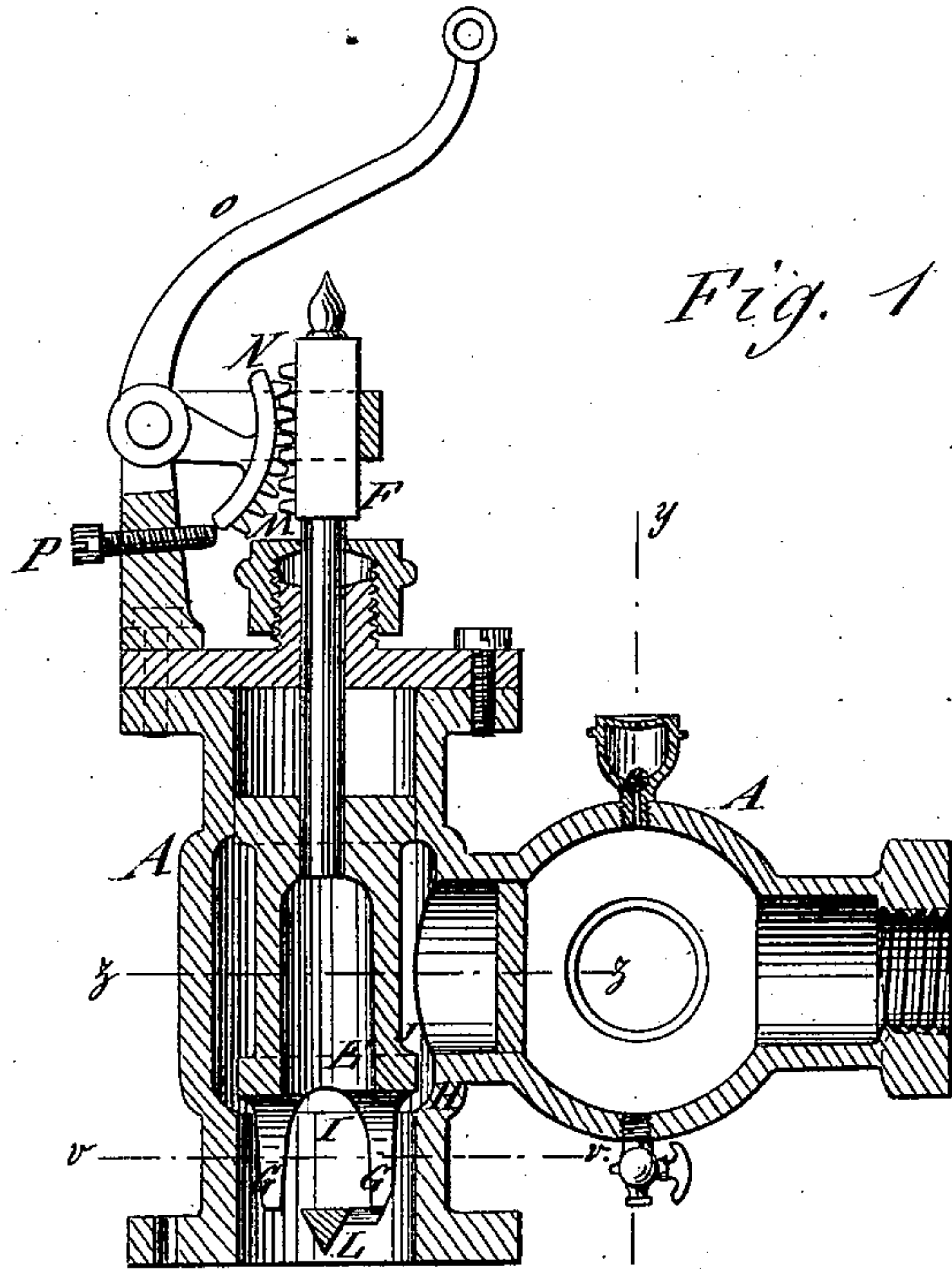


Fig. 1

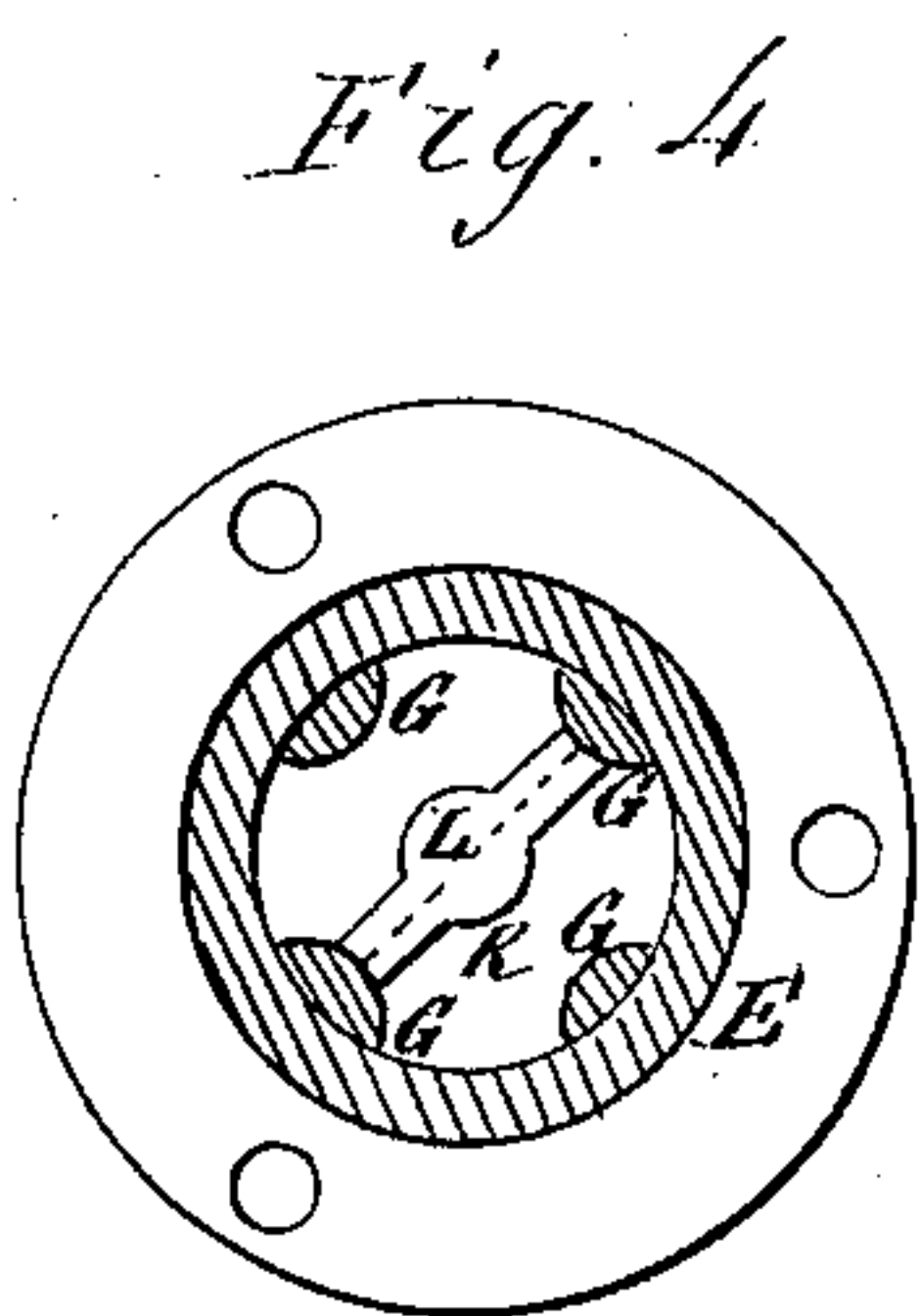


Fig. 4

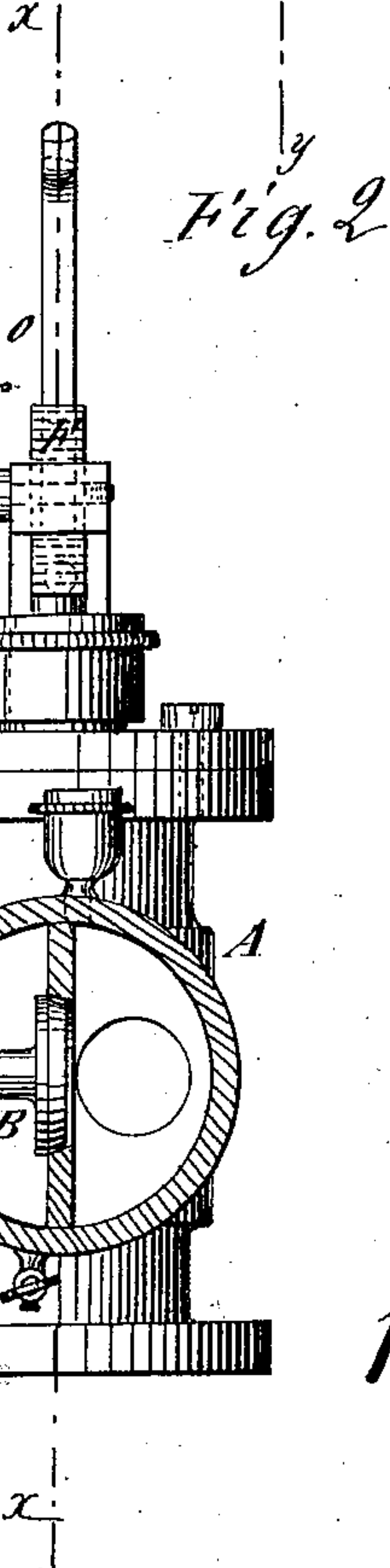


Fig. 2

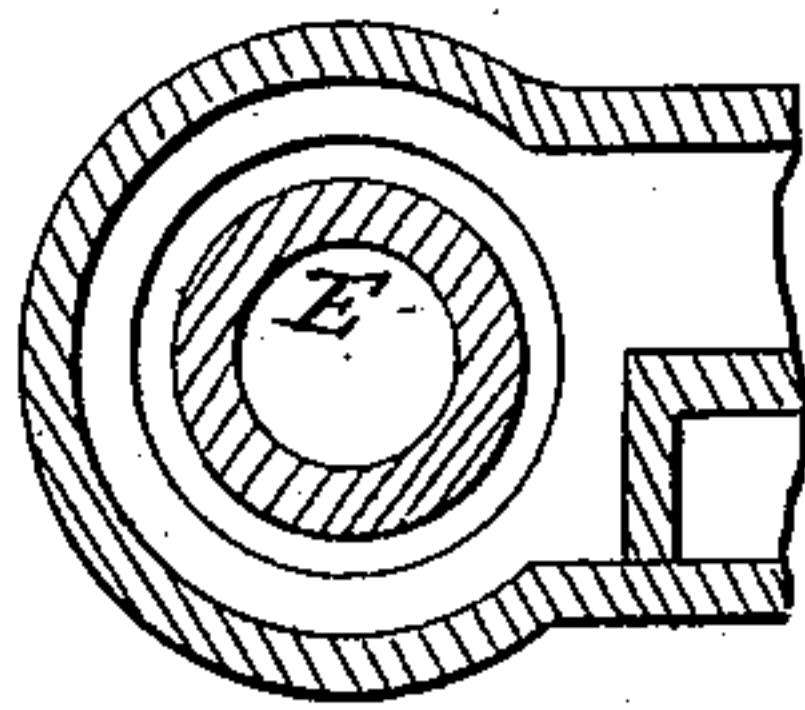


Fig. 3

WITNESSES:

C. Neveu
A. F. Terry

INVENTOR:

R. Scheidler and
BY *J. H. McNamar*
Munn
ATTORNEYS.

UNITED STATES PATENT OFFICE

REINHARD SCHEIDLER AND JOHN H. McNAMAR, OF NEWARK, OHIO.

IMPROVEMENT IN THROTTLE-VALVES.

Specification forming part of Letters Patent No. **164,219**, dated June 8, 1875; application filed March 29, 1875.

To all whom it may concern:

Be it known that we, REINHARD SCHEIDLER and JOHN H. McNAMAR, of Newark, in the county of Licking and State of Ohio, have invented a new and useful Improvement in Valves for Regulating Saw-Mill Steam-Engines, of which the following is a specification:

The object of this invention is to enable the attendant to control the action of the engine in sawing lumber in steam saw-mills, and for regulating other steam machinery; and it consists of a valve which is controlled by the sawyer by means of a sector-lever and rack placed in the steam-pipe, either in combination with or separate from a throttle-valve.

In the accompanying drawing, Figure 1 is a vertical section of a combined throttle and regulating-valve, taken on the line *x x* of Fig. 2. Fig. 2 is a vertical section of Fig. 1, taken on the line *y y*, showing the throttle-valve. Fig. 3 is a horizontal section of Fig. 1, taken on the line *z z*. Fig. 4 is a horizontal section of Fig. 1, taken on the line *v v*, looking down.

Similar letters of reference indicate corresponding parts.

In this example of our invention we show the regulating-valve and the throttle-valve combined; but they may be separated, and the regulating-valve may be used without the throttle-valve, if desired.

A represents the shell or casting. B is the throttle-valve. C is the rod thereof, which works through a stuffing-box, and is opened and closed by means of a screw and hand-wheel, D. E is the regulating-valve on the stem F. G are fingers, four, (more or less,) which extend down below the seat H. The openings I between the fingers are arch-shaped, and allow the steam to escape from the valve-chamber J to the engine at the top of the arches, so that as the valve is raised the quantity of steam is increased in volume. K is a bar of peculiar form, which connects

two of the fingers at the lower end. The lower side of this bar is beveled to an edge, and at the center is a point, L. (See Fig. 1.) The upper side is flat, to receive the downward pressure of the steam to close the valve. This valve is raised by means of a rack, *m*, on the upper part of the valve-stem and the sector N, which is attached to or cast with the lever O. P is an adjustable screw, by which the downward movement of the sector is stopped. This screw is adjustable to give the valve more or less movement, as may be desired. A rod or cord attached to the lever O, which extends to and is under the control of the sawyer, so that he can at any time regulate the motion of the engine. When the engine starts the throttle-valve is opened wide, so as to allow the full volume of steam to reach the regulating-valve. By this means the sawyer or attendant is enabled to completely regulate the movement of the engine, and in sawing to "gig back" the carriage slow or fast, or bring the engine to a full stop. The butterfly-valve has usually been employed for this purpose, but such valves become uncontrollable and soon wear out. Our valve is durable, and perfectly answers the purpose.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. The combination of the valve E, having fingers G and arched openings I, the stem F, having rack M, the sector N, stop P, and lever O, substantially as and for the purpose described.

2. In combination with the valve E, the bar K, substantially as described.

3. In combination with the sector N, the adjustable screw P, for the purposes described.

REINHARD SCHEIDLER.
JOHN H. McNAMAR.

Witnesses:

JOEL M. DENNIS,
EDSON B. DENNIS.