

Scott & Morton,
Oscillating Steam Engine.
N^o 68,008. Patented Aug. 20, 1867.

Fig 1

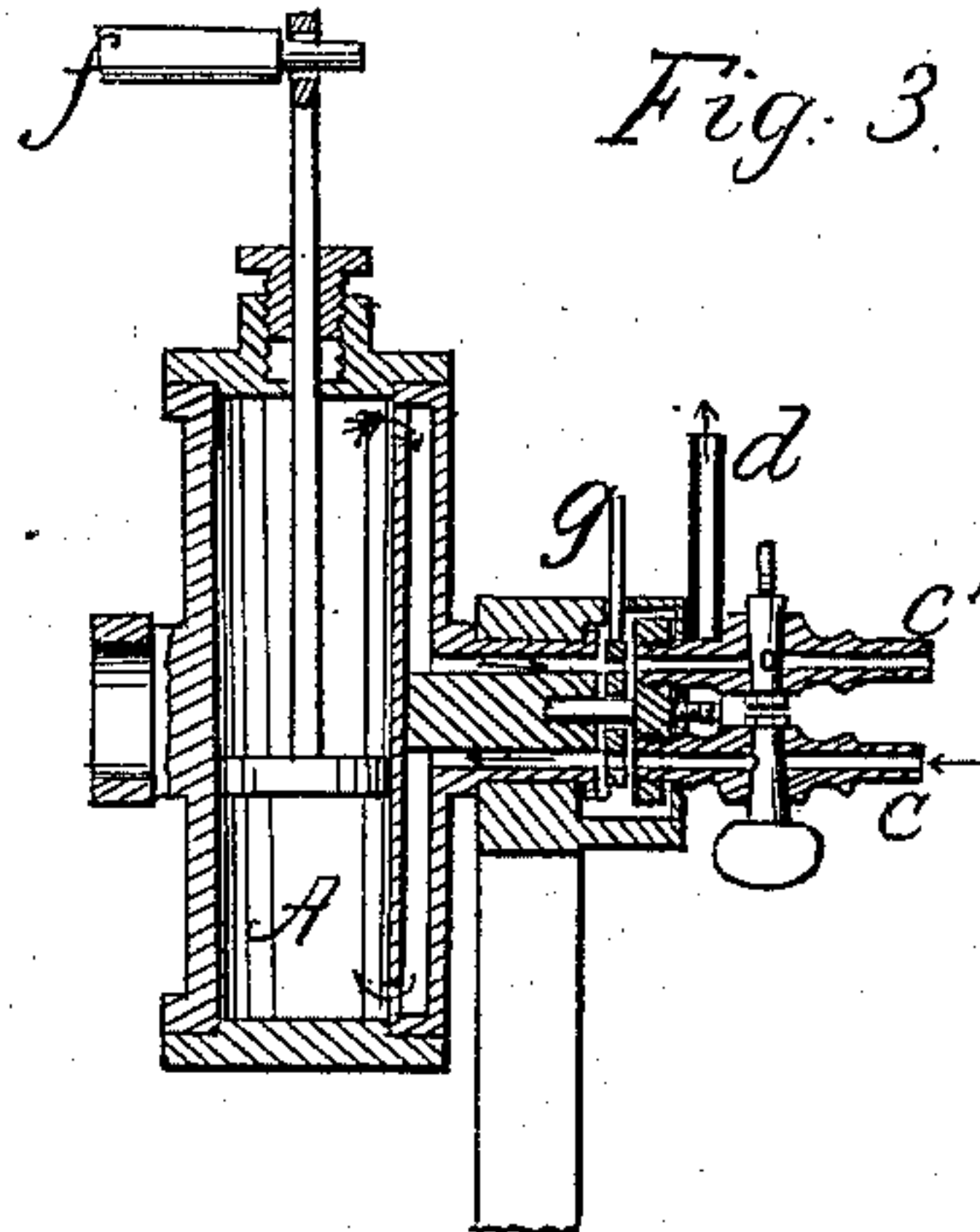
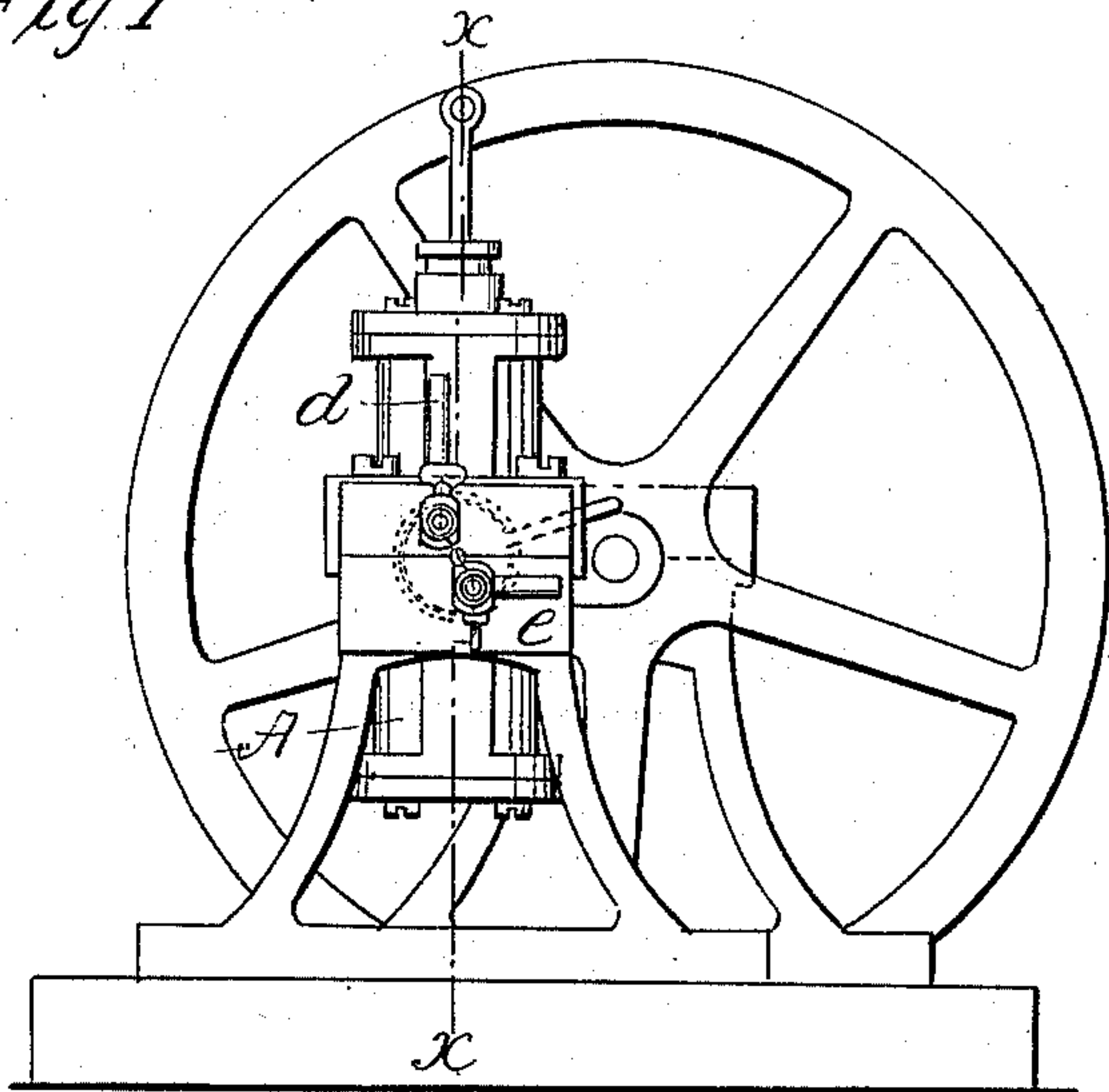


Fig. 3

Fig. 2

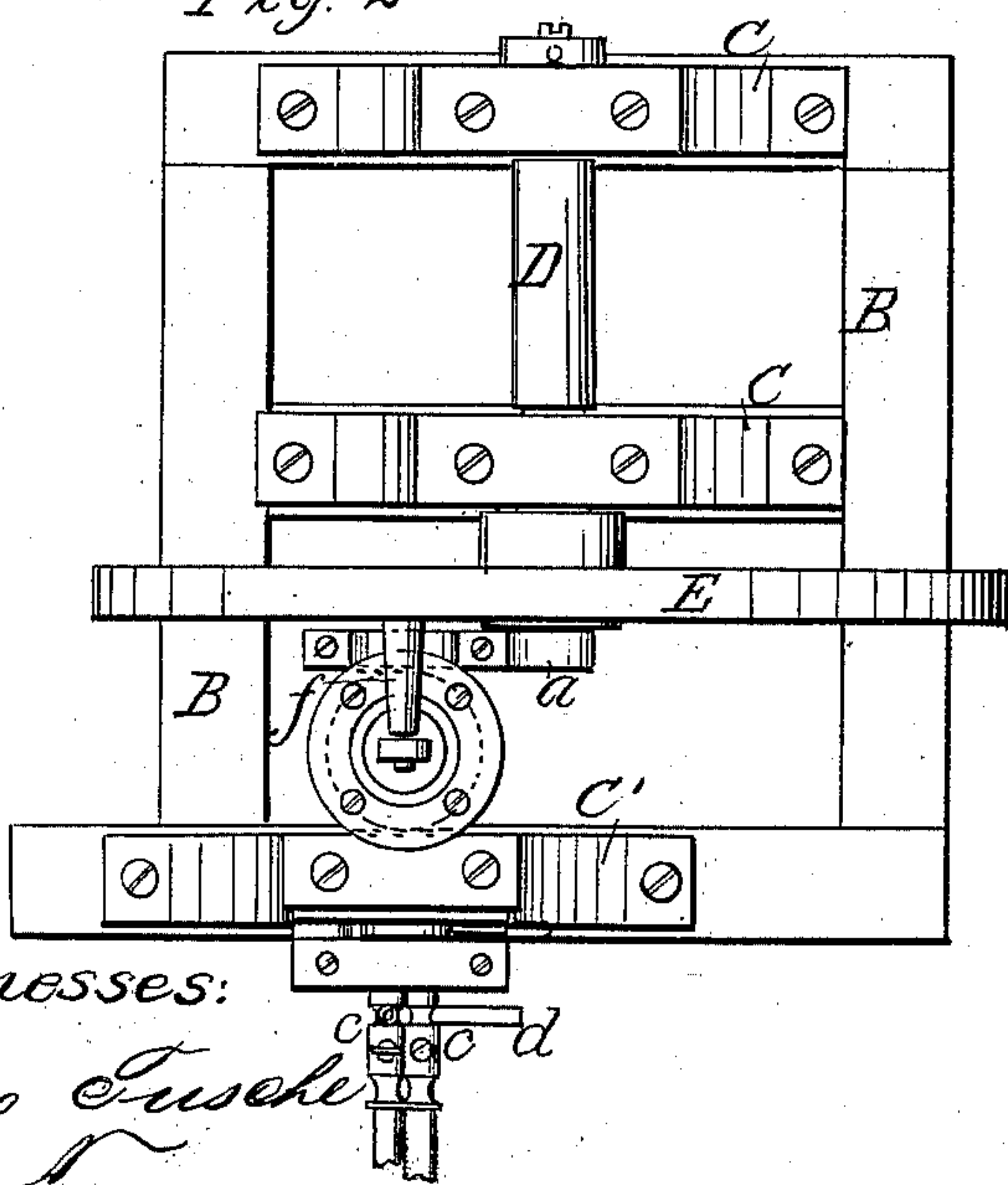


Fig. 4

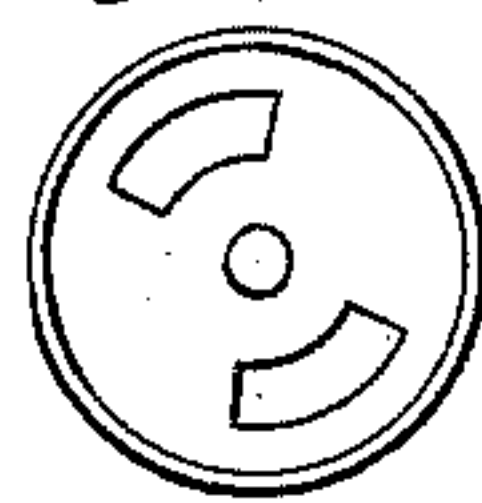
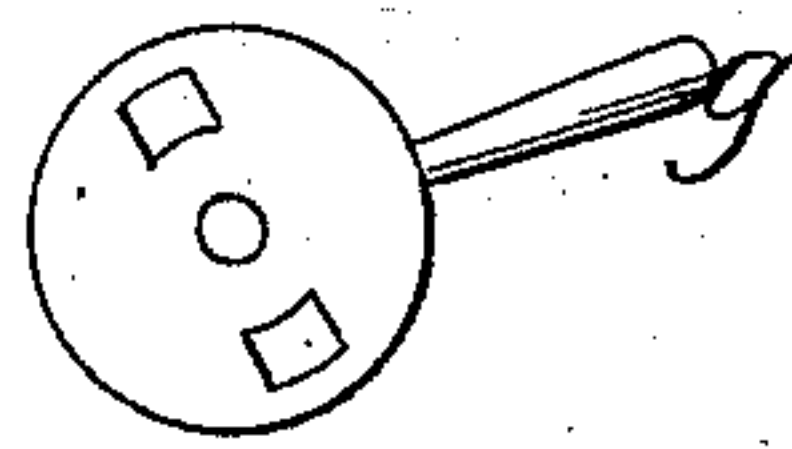


Fig. 5



Witnesses:

Theo Fische

Wm Freun

Inventor:

C Scott
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United States Patent Office.

CHALMERS SCOTT AND WILLIAM H. MORTON, OF HAMILTON, OHIO.

Letters Patent No. 68,008, dated August 20, 1867.

IMPROVEMENT IN REVOLVING-CYLINDER ENGINE.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that we, CHALMERS SCOTT and WILLIAM H. MORTON, of Hamilton, in the county of Butler, and State of Ohio, have invented a new and improved Revolving-Cylinder Steam Engine; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to a new and improved application of the steam engine for the purpose of producing rotary motion; and the invention consists in suspending the cylinder in trunnions and revolving it with the fly-wheel in the manner hereinafter described.

Figure 1 is a side elevation of the engine, showing the fly-wheel and the frame by which the cylinder is supported.

Figure 2 is a top or plan view.

Figure 3 is a central section of the cylinder detached, the section being through the line *x x* of fig. 1.

Similar letters of reference indicate like parts.

A is the cylinder, which revolves on two trunnions. B represents a platform, which supports three stands which are marked C. D is the horizontal engine-shaft, which revolves in boxes on the top of the stands. This shaft is a tube, and passing directly through it is a stationary rod or bar, the inner end of which has an arm attached to it marked *a*, and one of the trunnions of the cylinder is supported by this arm. The distance of the centre of the trunnion to the centre of the shaft D is the crank leverage of the engine. The other trunnion is supported by the stand marked C'. The steam-cylinder is constructed like the ordinary reciprocating engine-cylinder, the piston-rod of which is connected with the rim of the fly-wheel E by a wrist-pin marked *f*. The steam-ports of the cylinder are formed in the outer trunnion, and they are so arranged that the piston takes steam at each end of the cylinder alternately as the cylinder revolves.

Figure 4 shows the position of the ports *c* and *c'* in or through the trunnion.

Figure 5 shows the reversing-valve and lever *g*.

Fig. 3 represents the exhaust pipe when the cylinder takes steam, as represented by the arrows. When the motion of the engine is reversed by the reversing-valve, fig. 5, (the lever of which is seen at *g*, fig. 3,) this exhaust-port would be closed, and the steam would be exhausted from the port *c'* through the pipe *e*, seen in fig. 1. The port-trunnion is recessed, and the valve is kept to the face of the trunnion by a set-screw in the centre. The valve and end of the trunnion are covered with a boxing having a flat place on its inside for the valve to set on, and the valve is kept from revolving by a set-screw in a slot, so that the centre set-screw can set it up to the face of the trunnion when necessary. As the cylinder in its revolution comes on a horizontal line with the centre of the fly-wheel shaft D, the openings in the trunnion will come opposite to the openings in the valve in the manner of a slide-valve and admit the steam. By the arrangement shown of two exhaust pipes and cocks or valves in each steam pipe, it will be seen that by shutting and opening the proper ones we can reverse the motion of the engine when necessary.

What we claim as new, and desire to secure by Letters Patent, is—

The arrangement of the hollow revolving shaft D, having the stationary bar passing through it, to which is secured the arm *a*, cylinder A, fly-wheel E, and stand C', substantially as described, for the purpose specified.

CHALMERS SCOTT,
WM. H. MORTON.

Witnesses:

JAMES C. TAPSCOTT,
THOMAS I. SCOTT.