

SAMUEL VAN EMON.
Improvement in Pitman Connections for Steam Engines.
No. 120,222.

Patented Oct. 24, 1871.

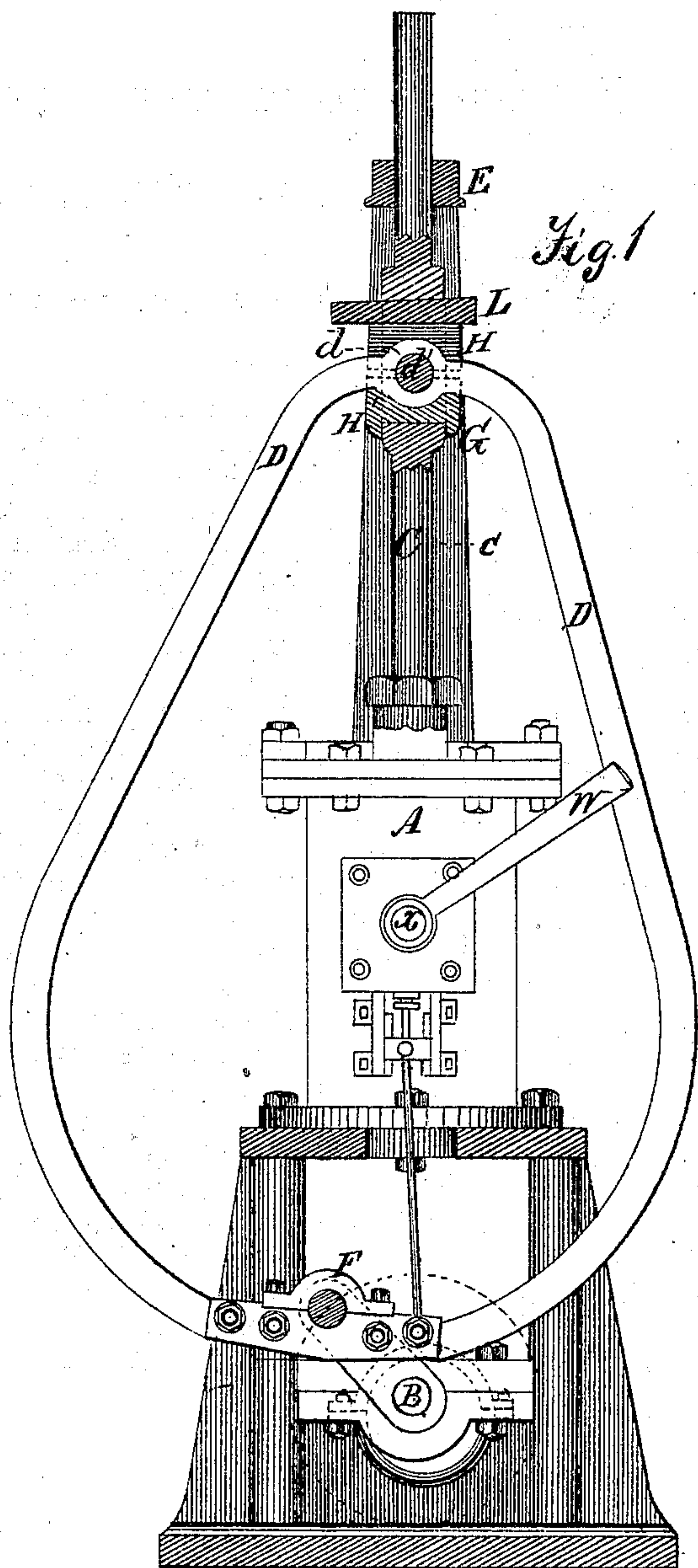


Fig. 1

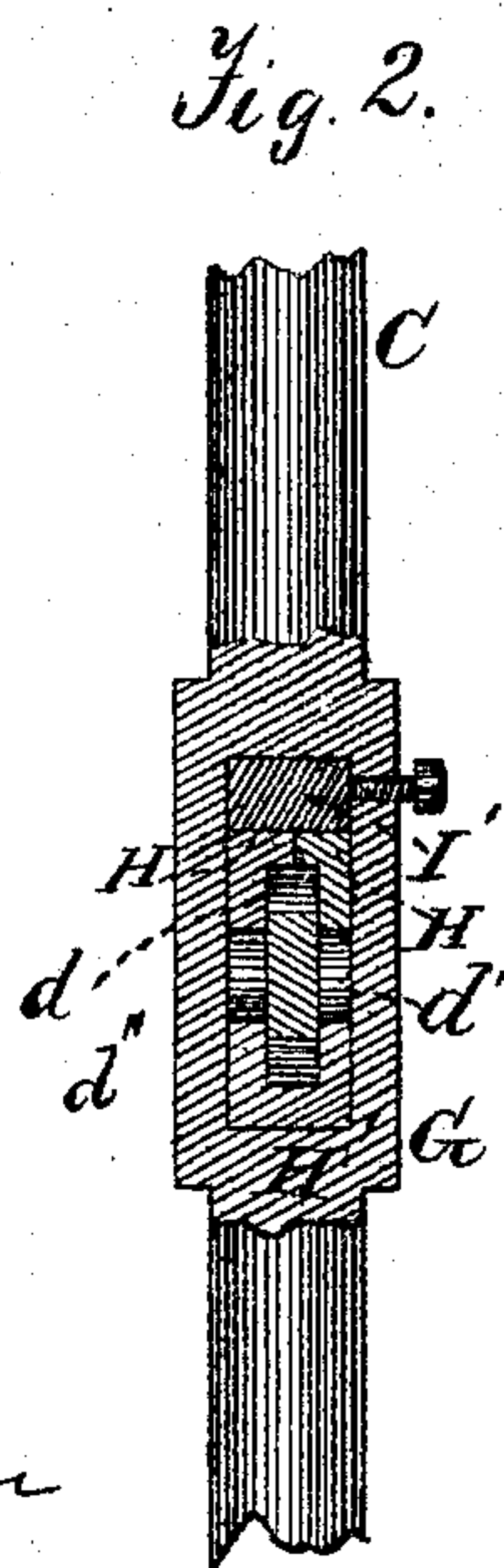


Fig. 2.

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SAMUEL VAN EMON, OF COVINGTON, KENTUCKY.

IMPROVEMENT IN PITMEN-CONNECTIONS FOR STEAM-ENGINES.

Specification forming part of Letters Patent No. 120,222, dated October 24, 1871.

To all whom it may concern:

Be it known that I, SAMUEL VAN EMON, of Covington, in the county of Kenton and State of Kentucky, have invented certain Improvements in Pitmen-Connections for Steam-Engines, of which the following is a specification:

The nature of this invention consists of a peculiar device for connecting the pitman to the piston-rod, designed for cheap manufacture, and adapted principally to the class of steam-engines which has a vertical cylinder above the crank-shaft and pitman or side rods straddling the cylinder.

Figure 1 is a front elevation, showing the connection between the pitman and piston-rod in section. Fig. 2 is a detail view of the pitman-joint in transverse section.

The same letters of reference are employed in both figures in the designation of identical parts.

A is the cylinder of the engine; B, the crank-shaft; C, the piston-rod; and D, the pitman. The piston-rod is prolonged beyond the pitman-joint, the prolongation working in a guide, E. In order to dispense with the side rods, cross-head, and side slides usually employed in engines of this class I use the ring-pitman D, which straddles the cylinder A, and has but two points of contact with the other parts of the engine, one on the crank-wrist and the other at the junction

with the piston-rod. The connection of the crank-wrist is made by the capped journal-bearing F, and to the piston-rod by the following peculiar device: The pitman near its junction with the piston-rod is rectangular in cross-section, the center being enlarged and circular in the plane of vibration, as shown at *d*. Two trunnions or short journals also project from the sides of the pitman at this point at right angles to the plane of vibration of the pitman, the trunnions being shown by *d'* *d''*. The pitman D fits between the jaws of the rectangular socket G, which is formed on the piston-rod, the gibs H H' being interposed between the pitman and the ends of the socket. The gibs are constructed to fit both the trunnions and the circular center *d*. The key I keeps the gibs in place and serves to take up the wear.

What I claim as my invention, and desire to secure by Letters Patent, is—

The herein-described swiveling-connection for pitman and piston-rod, consisting of socket G, gibs H H', key I, and circular center *d* *d'* *d''*, the parts being combined to operate substantially in the manner and for the purpose specified.

In testimony of which I hereunto set my hand.

SAMUEL VAN EMON.

Witnesses:

FRANK MILLWARD,
ELITHA F. LAYMAN.

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