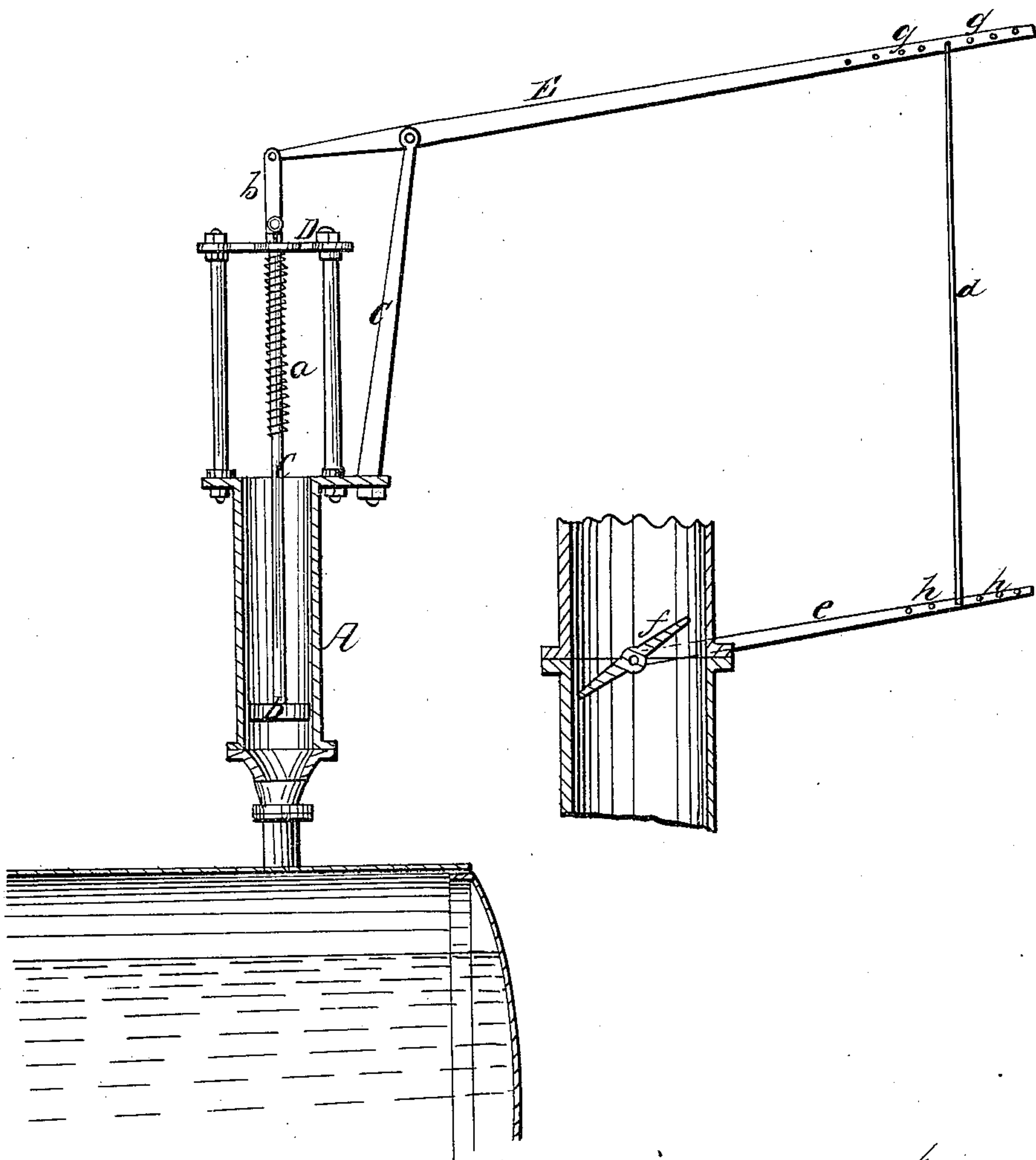


*J. M. Rees,*

*Governor.*

*N<sup>o</sup> 50,496.*

*Patented Oct. 17, 1865.*



*Witnesses:*

*Wm. O'Brien*

*Flu. Tusch*

*Inventor:*

*Jas. M. Rees*

*By Messrs & Co*

*attys*

# UNITED STATES PATENT OFFICE.

JAMES M. REES, OF SCOTT, OHIO.

## IMPROVEMENT IN GOVERNORS FOR STEAM-ENGINES.

Specification forming part of Letters Patent No. **50,496**, dated October 17, 1865.

*To all whom it may concern:*

Be it known that I, JAMES M. REES, of Scott, in the county of Adams and State of Ohio, have invented a new and Improved Governor for Steam-Engines; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing, forming part of this specification.

The drawing represents a vertical central section of this invention, showing its application to a steam-boiler.

This invention relates to a governor of that class which tend to equalize the action of the steam upon the engine by means entirely independent of said machinery, or of the speed with which said machinery runs, and the action of which depends entirely upon the pressure of the steam in the boiler. If the pressure in the boiler rises a valve in the steam-pipe closes, and the quantity of steam admitted to the engine is reduced, and vice versa.

The governor consists of a piston working in a cylinder or tube which is secured in the upper part of a steam-boiler. A spiral spring has a tendency to depress the piston, and the piston-rod connects with a lever, which is provided with a number of holes, from one of which a rod extends to a corresponding hole in an arm mounted on the end of the valve-spindle. If the pressure of the steam rises the piston is forced up against the action of the spring, and the valve partially closes, and vice versa. By changing the rod connecting the lever with the arm on the valve-spindle the position of said valve can be regulated.

A represents a tube, which is provided with

a screw-thread at its bottom end, so that it can be readily secured in a steam-boiler, as shown, and that the steam from said boiler has free access to the tube. In this tube works a piston, B, from which a rod, C, extends up through a yoke, D, in the top of the tube A. A spiral spring, *a*, has a tendency to depress the piston against the action of the steam. The piston-rod connects by a link, *b*, with a lever, E, which has its fulcrum in a standard, *c*, rising from the tube A, and the loose end of said lever connects by a rod, *d*, with an arm, *e*, that is mounted on the spindle of the throttle-valve *f*. The rod *d* is adjustable in a series of holes, *g h*, in the lever E and arm *e*, so that the position of the valve *f* can be regulated at any moment. If the pressure of the steam in the boiler increases it forces the piston up, and the throttle-valve closes, and vice versa, and the quantity of steam passing to the engine is thus regulated according to the pressure of the steam in the boiler.

I do not claim as my invention the use of a piston to operate the throttle-valve, such having been described in an application for a patent made by Z. Beeson, and rejected 10th July, 1854; but

I claim as new and desire to secure by Letters Patent—

The adjustable rod *d*, in combination with the lever E, arm *e*, valve *f*, and piston B, substantially as and for the purpose described.

The above specification of my invention signed by me this 1st day of July, 1865.

JAMES M. REES.

Witnesses:

RICHARD RAMSAY,  
SAMUEL MCNEIL.