

*J. D. Moon & J. T. Foster*

*Steam-Engine Valve.*

*N<sup>o</sup> 94,231. Patented Aug. 31, 1869.*

Fig. 1.

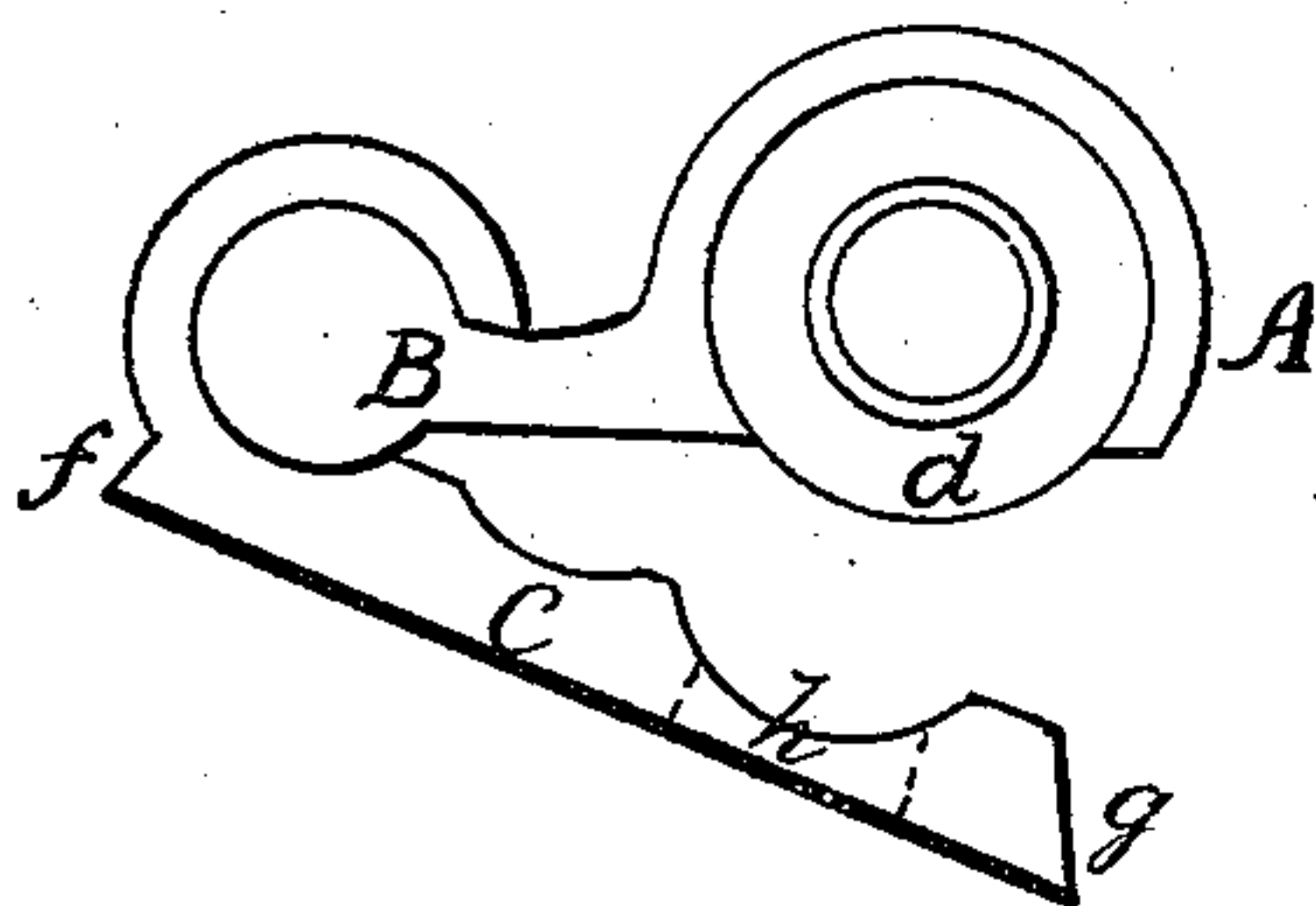


Fig. 2

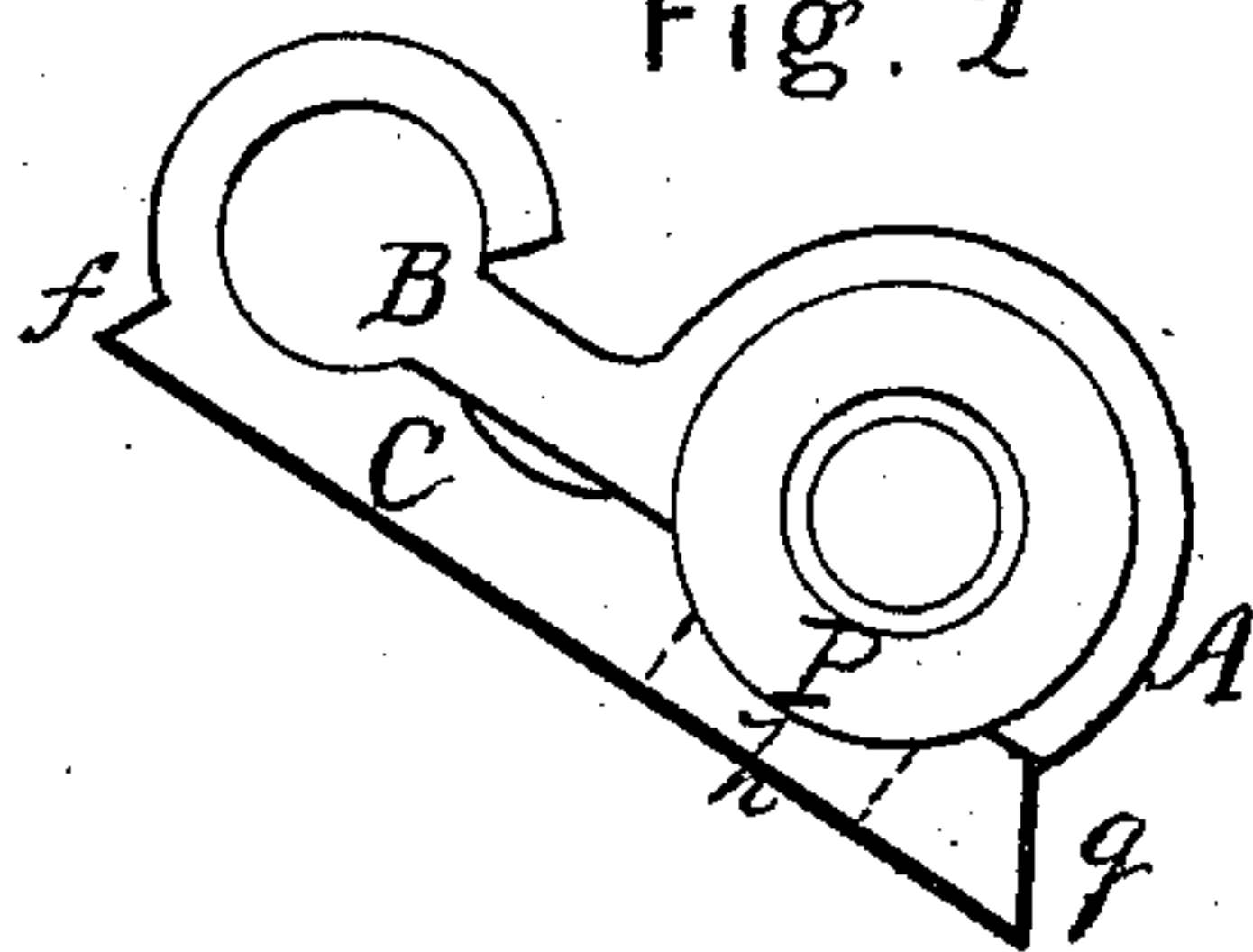
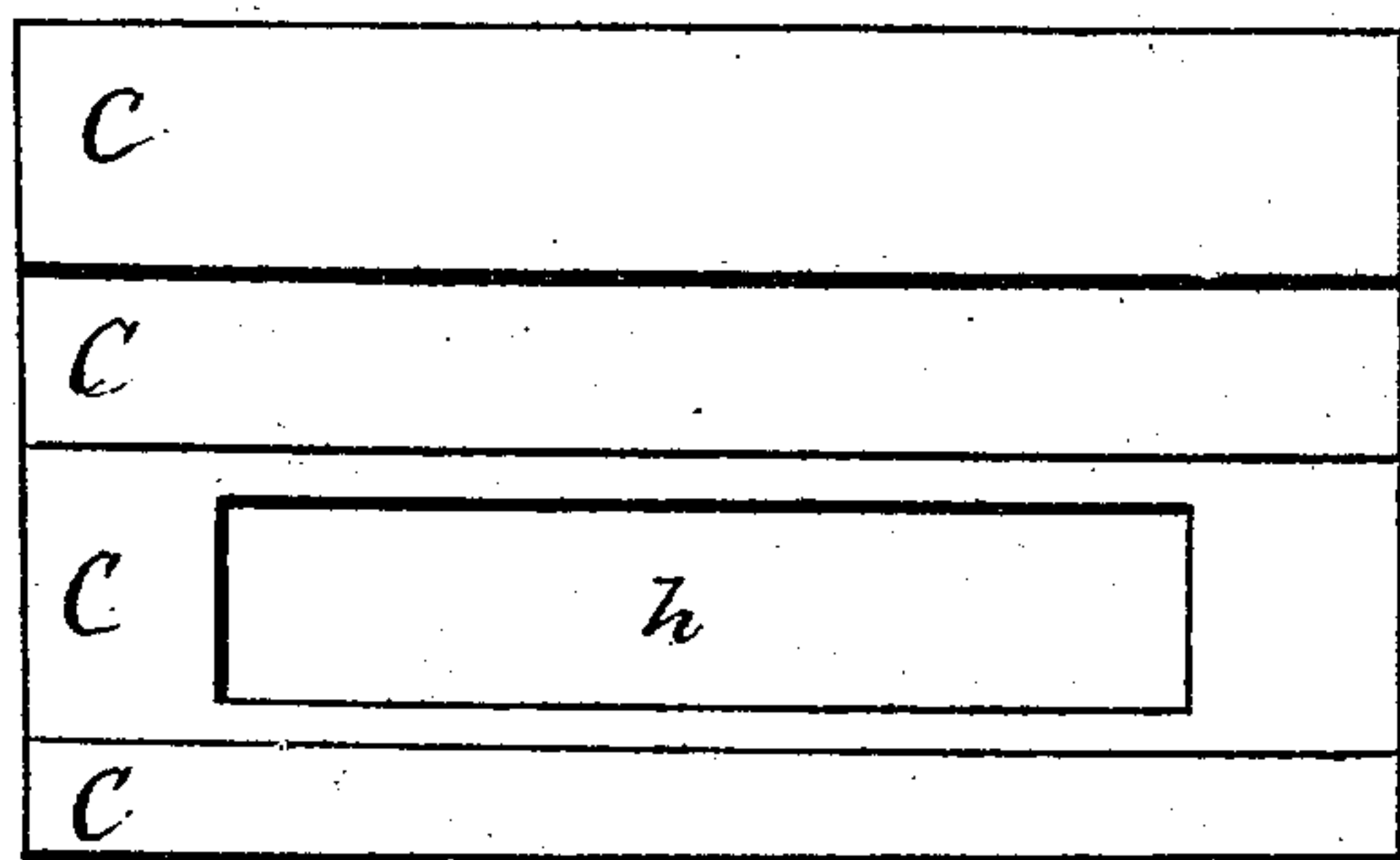


Fig. 3.



Witnesses

*Chas E West*  
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Inventor

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*J. T. Foster*

# United States Patent Office.

JOSEPH D. MOON AND JOHN T. FOSTER, OF JERSEY CITY, NEW JERSEY.

Letters Patent No. 94,231, dated August 31, 1869.

## IMPROVEMENT IN STEAM-ENGINE VALVES.

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, JOSEPH D. MOON and JOHN T. FOSTER, both of the city of New Jersey, State of New Jersey, have invented a new and improved Valve for Pumps and Engines; and we hereby declare that the following is a full and clear description of the same, reference being had to the accompanying drawings and letters of reference marked thereon, making part of this specification.

Like letters refer to like parts in each figure.

Figures 1 and 2 are end views.

Fig. 1 represents the metallic valve A thrown open, its shank B is clasped by the valve-bed C, similar to the formation of a but-hinge, except that the clasp-part of C forms a guard to prevent the valve A from opening further than is desired.

*d* is a piece of gutta-percha of proper diameter, to fill the cylindrical valve A, and forms a packing, by which the valve-opening *h* is made tight.

Owing to the projecting part of *d* being less than half its diameter, it is retained in proper position while in operation.

Fig. 2 represents the same valve when closed.

Figure 3 is a simple plan view of C, showing the valve-opening *h*.

Wood or leather, and many similar substances may be used for packing in the same manner.

The face of the valve and valve-bed, including the packing, may be made flat, if desired.

The valve, as herein shown and described, is complete when attached to the pump or engine-cylinder, by dovetailing the edges *f* and *g* into the pump or engine-cylinder in proper position, so that the valve A will have the aid of gravity in closing.

What we claim, is—

The packing *d*, or its equivalent, in combination with the hinge-joint, constructed and operating substantially as herein set forth.

JOS. D. MOON.  
J. T. FOSTER.

Witnesses:

S. BRINKERHOFF,  
CHAS. E. WEST.