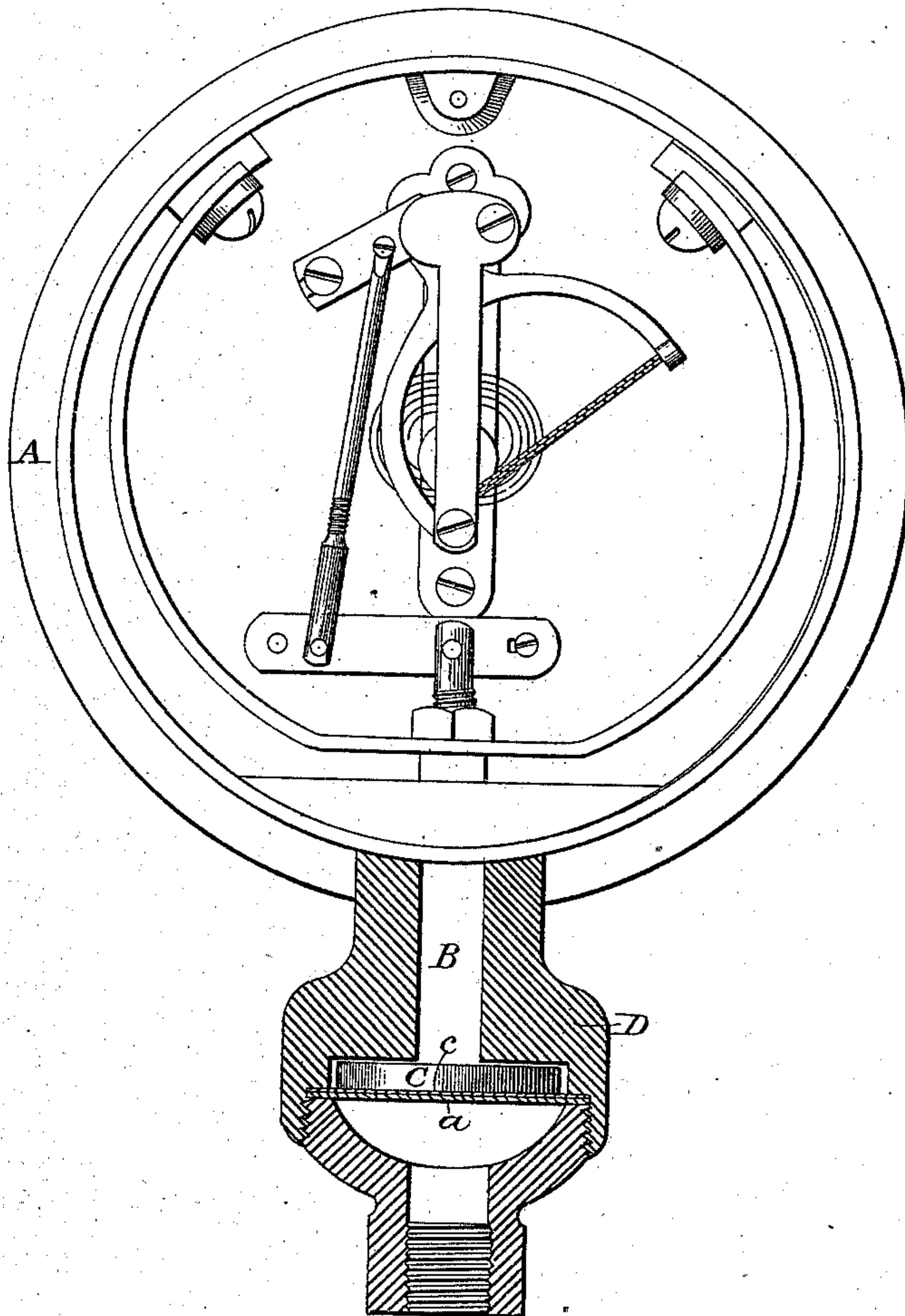


J. P. HOLT.  
Steam Gage.

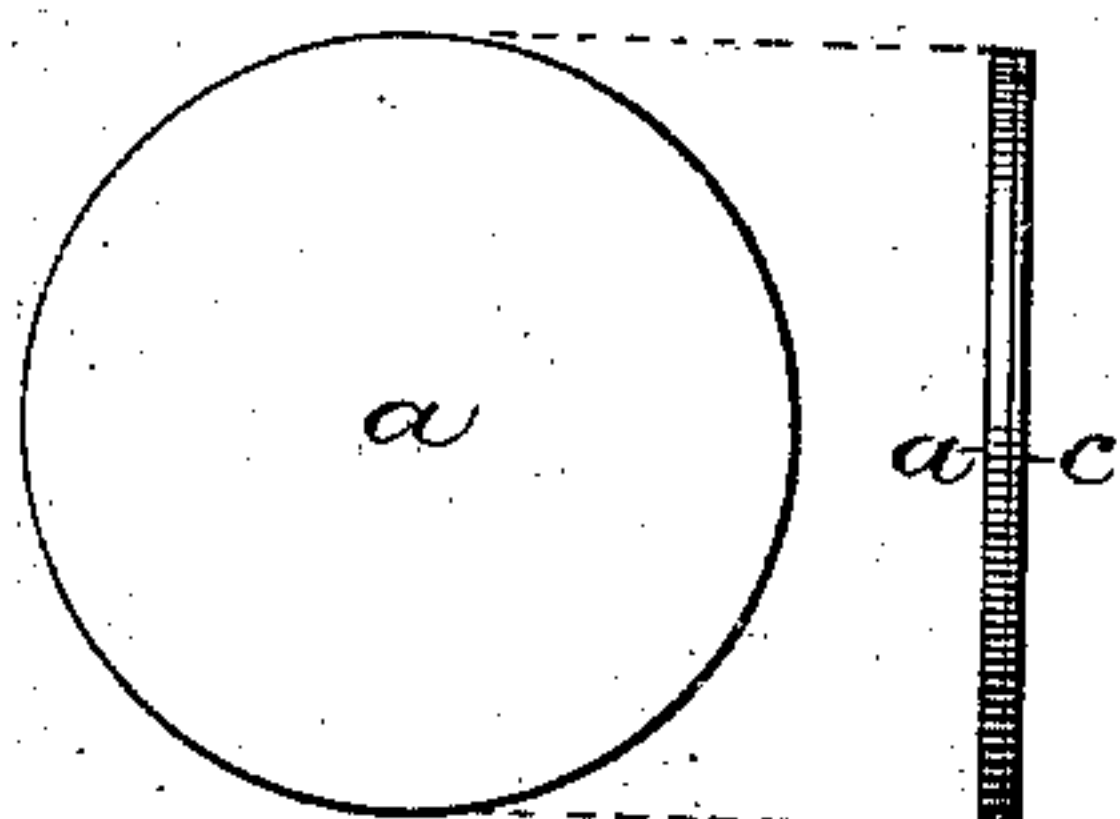
No. 105,685.

Patented July 26, 1870.

*Fig. 1.*



*Fig. 2.*



Witnesses,  
*J. H. Burrage*  
*Frank Alden*

Inventor,  
*John P. Holt.*  
*Per Burrage & Co.*



# United States Patent Office.

JOHN P. HOLT, OF CLEVELAND, OHIO.

Letters Patent No. 105,685, dated July 26, 1870.

## IMPROVEMENT IN STEAM-GAUGES.

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

Be it known that I, JOHN P. HOLT, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented a new and improved Steam Gauge, of which the following is a specification.

### *Drawing.*

Figure 1 is a front view of the gauge.

Figure 2 a detached section.

Like letters of reference refer to like parts in the different views.

### *Objective.*

The nature of this invention relates to the packing or diaphragm covering the button attached to the lower end of a stem, whereby the mechanism of a steam-gauge is operated by the pressure of steam, exerted upon said button and stem, as hereinafter more fully set forth.

### *General Description.*

In fig. 1—

A represents the case or shell in which the mechanism of the gauge is secured, and which is, or may be, of the ordinary description now in use.

B is the stem, to which the button C is attached, and upon which the steam exerts its pressure.

Said stem and button are fitted loosely in the stuffing-box D, so that they may work freely therein for actuating the gauge.

In order to prevent the steam from passing through the stuffing-box, around the stem and button into the shell, a flexible gasket of rubber, or other suitable

material, is placed on over the underside of the bottom, as shown at *a*, a detached view of which is shown in fig. 2.

It is found by experience that, in consequence of the adhesive nature of the rubber diaphragm or gasket when heated, it sticks to the face of the button, also, to the shoulders of the stuffing-box, thereby obstructing the movement of the stem, sometimes causing a variation of several degrees in the action of the gauge. To avoid this difficulty, I place a shield of tin-foil, *c*, or other metal foil, between the button and the gasket, thereby preventing said gasket from adhering to the button, which will allow the stem to move freely to a variable pressure of the steam, and at the same time make a steam-tight joint.

The foil shield may be placed on each side of the diaphragm or gasket, but, under ordinary circumstances, one only is necessary when placed between the gasket and face of the button.

### *Claim.*

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

The foil shield *c*, in combination with the rubber diaphragm or gasket *a*, and button C, of a pressure-gauge, in the manner as described, and for the purpose specified.

JOHN P. HOLT.

Witnesses:

W. H. BURRIDGE,  
FRANK ALDEN.