

G. M. DAVIS.
Steam Gage.

No. 68,849.

Patented Sept. 17, 1867.

Fig. 2.

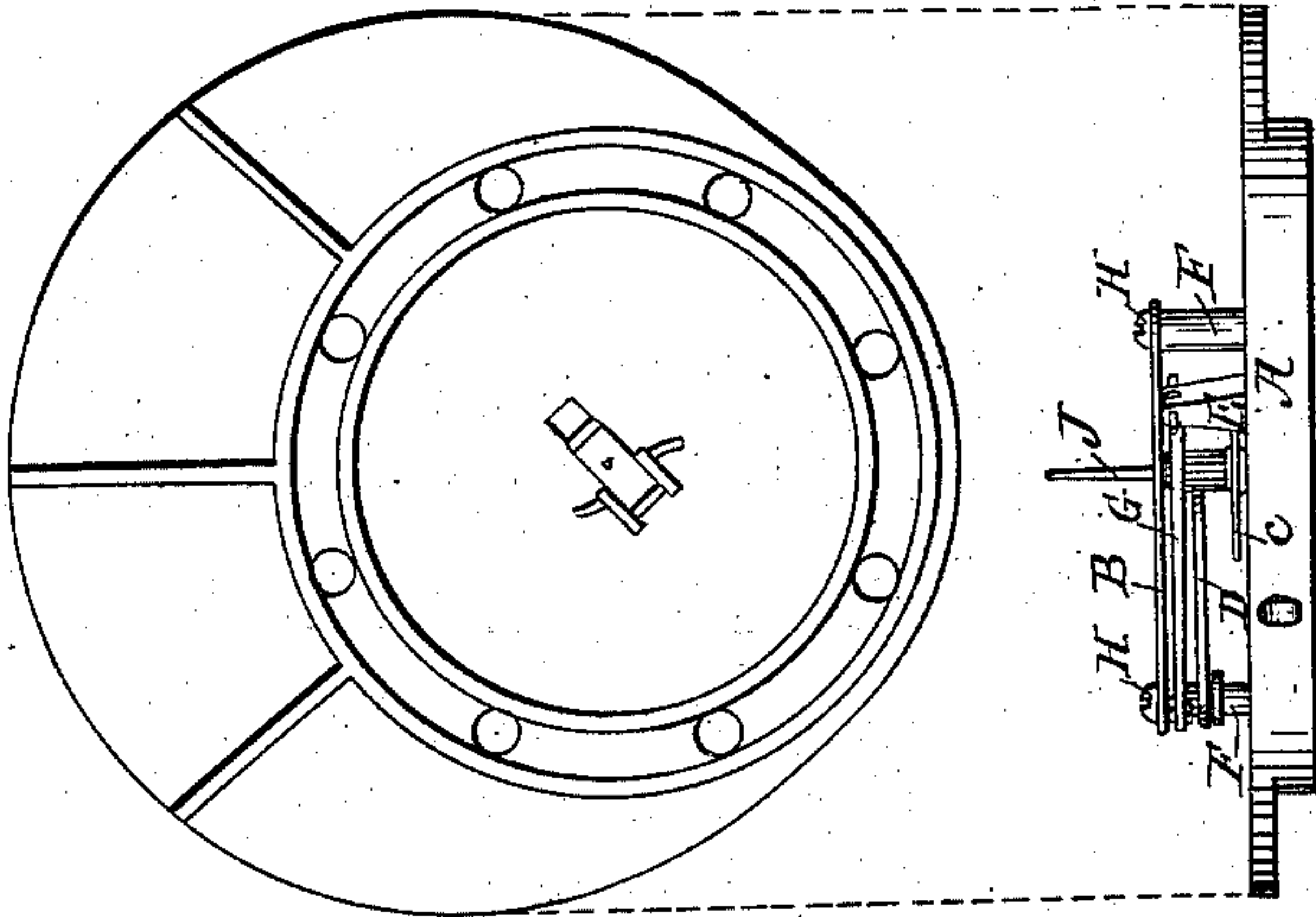


Fig. 3.

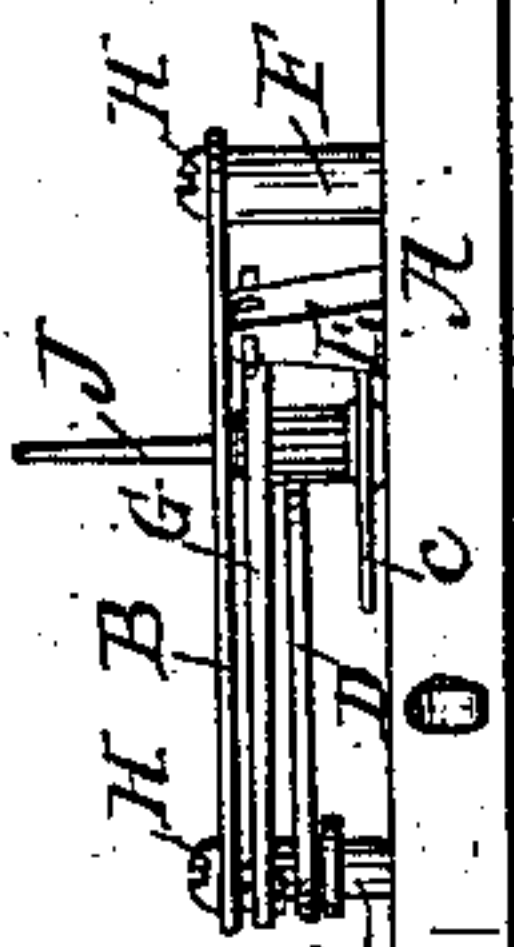


Fig. 5.



Fig. 1.

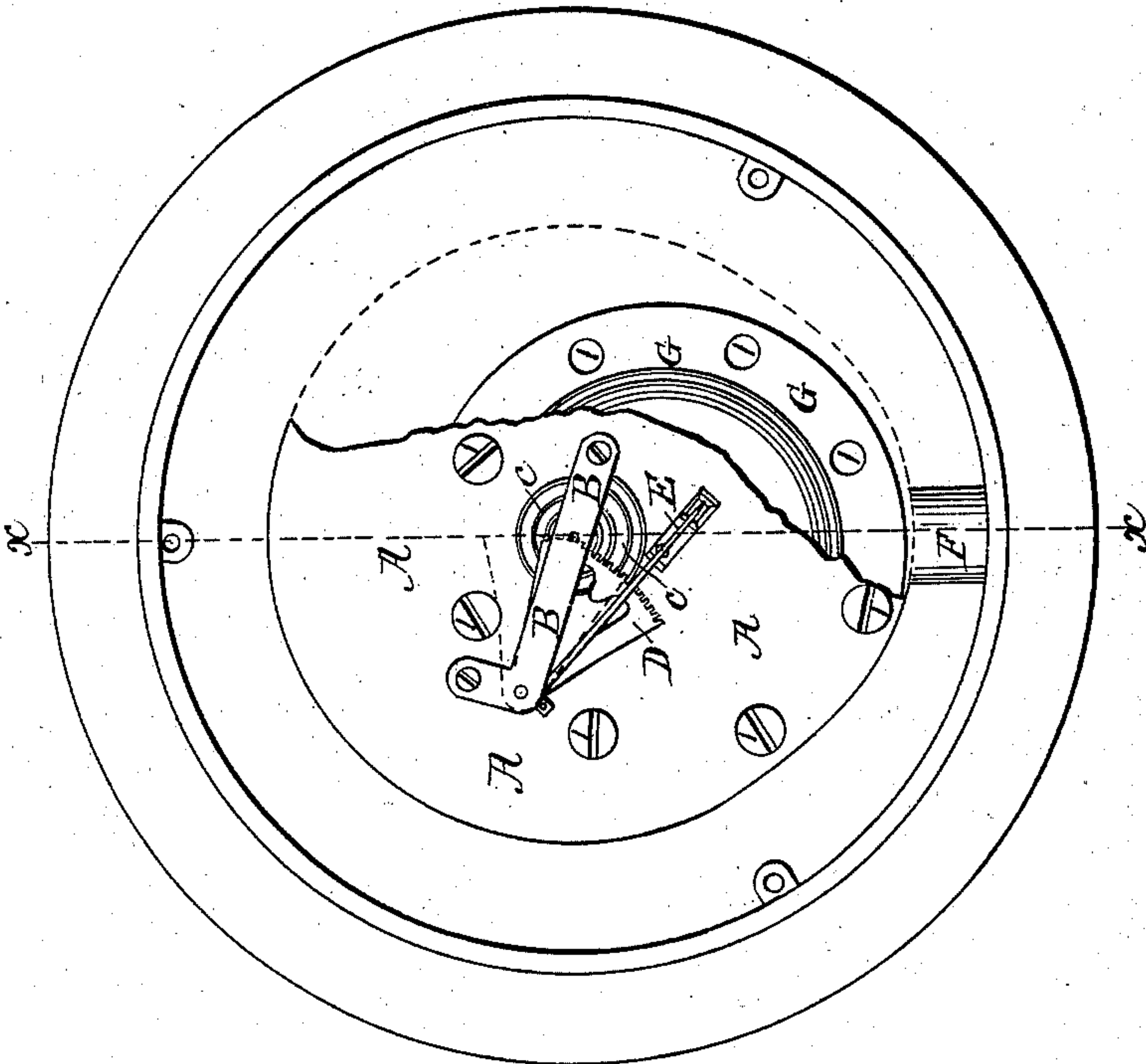
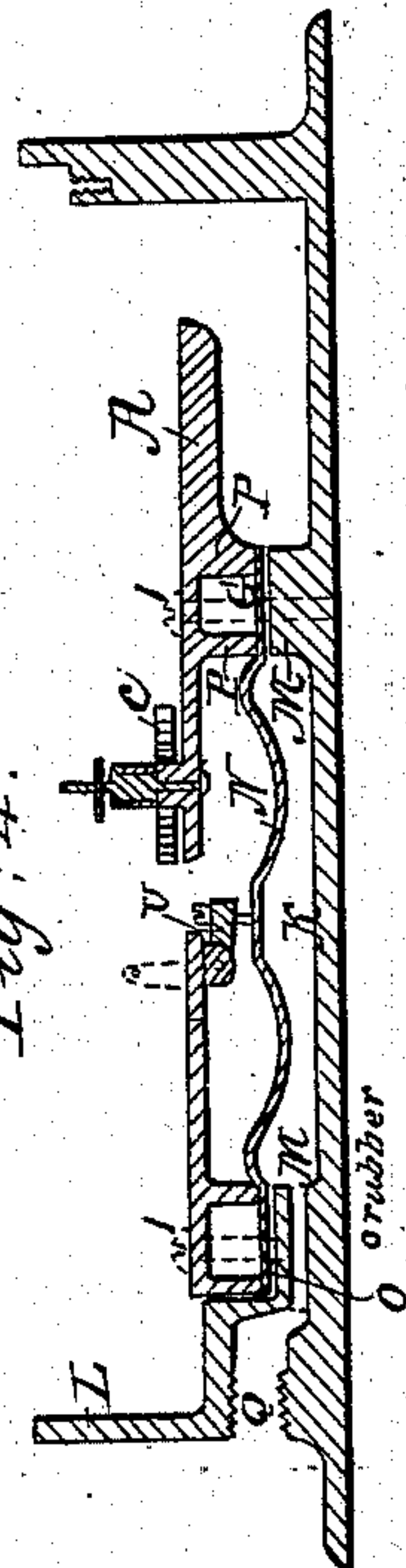


Fig. 4.



Witnesses:
G. H. Hammer.
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Inventor
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GEORGE M. DAVIS, OF CHICAGO, ILLINOIS.

Letters Patent No. 68,849, dated September 17, 1867.

IMPROVEMENT IN STEAM-GAUGES.

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

TO ALL WHOM IT MAY CONCERN:

Be it known that I, GEORGE M. DAVIS, of Chicago, in the county of Cook, in the State of Illinois, have invented a new and improved construction of Steam-Gauges; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, and an additional drawing, which I denominate B, in which—

Figure 1 is a plan view of my invention, with the dial plate removed and a part of the diaphragm broken away to give a view of the common flexible plate against which the steam is made to press.

Figure 2, a plan view of the inner side of the diaphragm, showing the bearings which hold the flexible plate and its packing in place.

Figure 3, an elevation of the diaphragm and its attachments removed from the gauge-box.

Figure 4, drawing B, is a sectional elevation, taken through fig. 1, at the line X X.

Figure 5, same drawing, is an elevation of the lever and bar, which operate the ratchet and indicating post.

The nature of my invention consists in the means for holding the flexible plate to the projections, raised up to form a steam-chamber at the back of the diaphragm. By this means the diaphragm which supports the moving devices is made to press closely against the flexible plate and thus make the steam-chamber tight, and yet so that it can be readily removed for cleaning, repairs, &c.

Your petitioner is well aware that there are differently-constructed steam-gauges, but one of the advantages of this improvement is, that it is all on one foundation or plate, so as to be taken out and replaced without any inconvenience; and after it is once constructed there is nothing that can get out of line or out of place.

Other steam-gauges are generally made in separate parts. The movements being in different pieces, it is impossible to take them out and put them back again in their proper places without great inconvenience and difficulty. Owing to their peculiar construction they are more liable to get out of repairs; whilst this combination, all being united together, it cannot in any manner become disarranged.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

K represents the back, and L the periphery of the common steam-gauge box. M M represent an elevated rim, of sufficient height to form a steam-chamber, between back K and flexible plate N G, fig. 4; said chamber being supplied with steam by means of pipe Q in the usual manner. The diaphragm A has two rims or projections P P, corresponding in diameter with the inner and outer periphery of projection M M. A ring of rubber, O, is fitted beneath plate N, and firmly clamped together with said plate between projections P P M M, by means of screws 1, figs. 1 and 4. The devices B D C U are attached wholly to diaphragm A, and are made to operate by pressure of steam against plate N in the usual manner. The dial and indicator are not shown in the drawings, they being a common arrangement and well understood; the object of my invention being more especially calculated for holding and removing the gearing and simplifying the construction of the steam-chamber than improving the working parts of the gauge, although they are arranged in a better position than heretofore.

Having thus fully described my device, what I claim, and desire to secure by Letters Patent, is—

The diaphragm A, arranged to support the devices D B C U, and having rims P P for clamping plate N to projection M M, on back K, substantially as and for the purposes set forth.

GEO. M. DAVIS.

Witnesses:

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HENRY S. DOW.