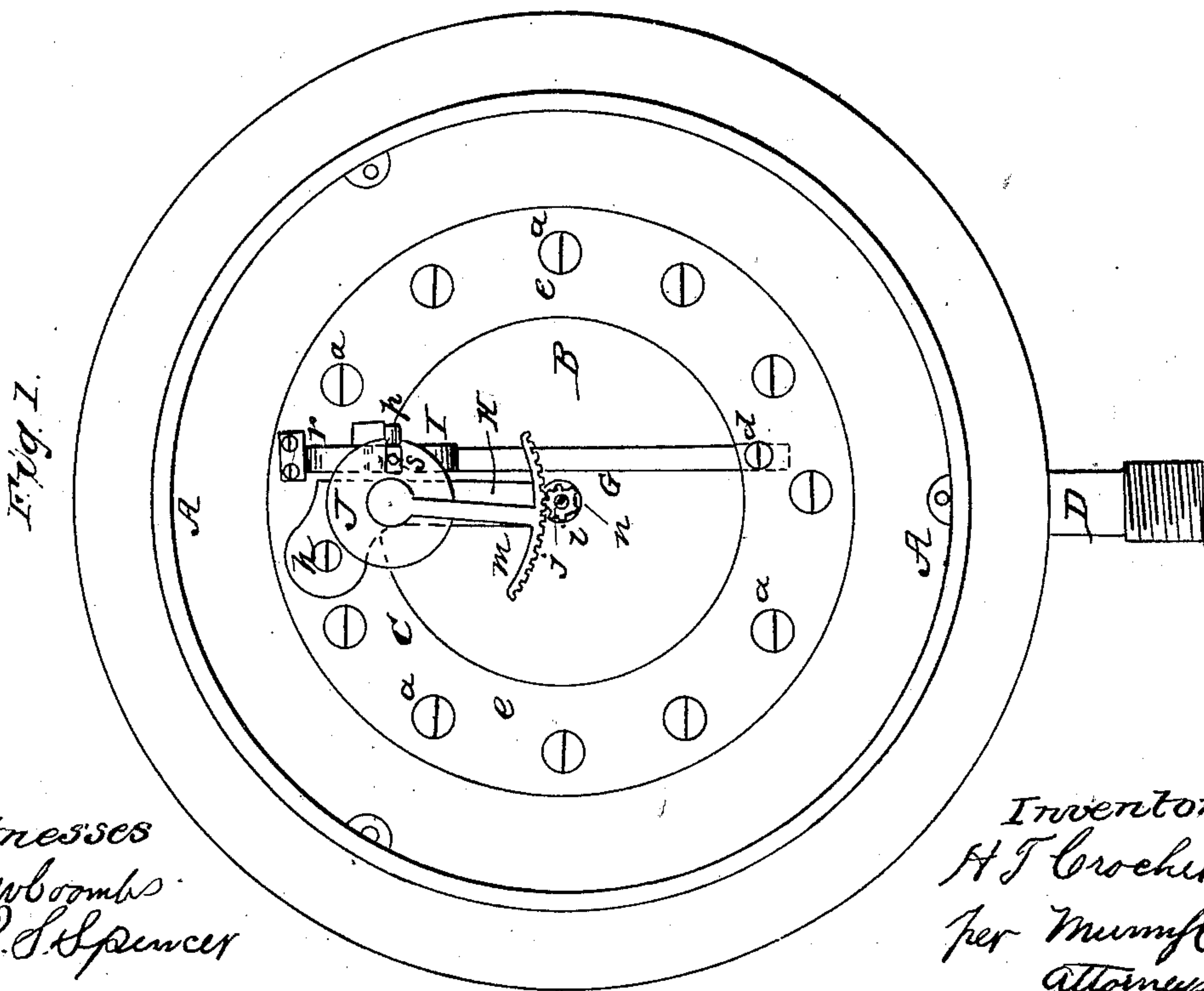
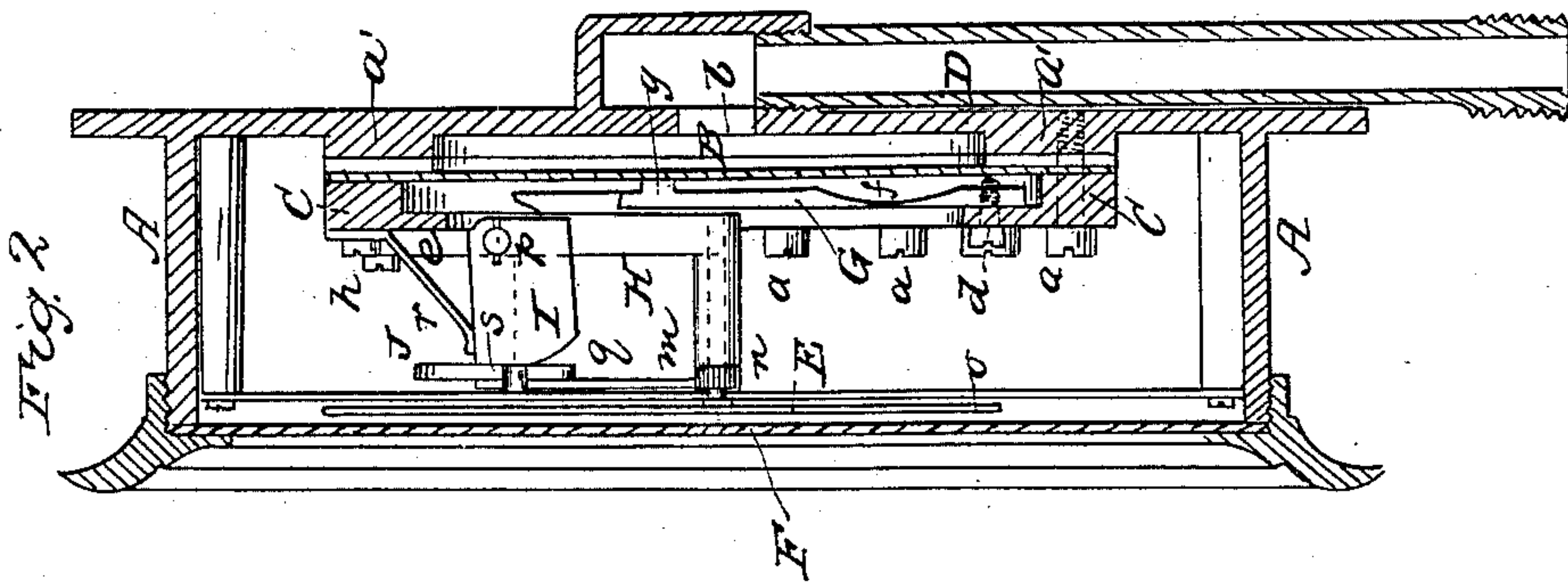


H. T. CROCKER.

Pressure Gage.

No. 32,911.

Patented July 23, 1861.



Witnesses  
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# UNITED STATES PATENT OFFICE.

HORACE T. CROCKER, OF NEW LONDON, CONNECTICUT, ASSIGNOR TO HIMSELF AND W. H. BARNES, OF NEW LONDON, CONNECTICUT.

## STEAM-PRESSURE GAGE.

Specification of Letters Patent No. 32,911, dated July 23, 1861.

*To all whom it may concern:*

Be it known that I, HORACE T. CROCKER, of New London, in the county of New London and State of Connecticut, have invented a new and useful Improvement in Pressure-Gages; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, forming part of this specification, in which—

Figure 1 represents a front view of a pressure gage constructed according to my invention, having the dial and index removed to expose the interior. Fig. 2 is a vertical section of the same complete, taken at right angles to Fig. 1.

Similar letters of reference indicate corresponding parts in both figures.

This invention relates to that kind of gage known as the metallic diaphragm gage; and it consists in certain novel means through which the diaphragm acts upon the index to make it show upon the dial the pressure of steam or other fluid.

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

A is the circular case of the gage, having an annular protuberance  $a'$ , on the interior of its back to which the metallic diaphragm B, is secured by a metallic ring C, and screws  $a$ ,  $a$ , and having a central opening  $b$ , for the connection of the pipe D, which admits the steam or other fluid to act upon the back of the diaphragm.

E is the dial and F, the glass which covers the index  $c$ .

G is a steel bar, secured by a screw  $d$ , to the interior of a flange  $e$ , which is formed around the interior of the ring C, as shown in Fig. 2. This bar is made thin in one part as shown at  $f$ , in Fig. 2, to give it the necessary elasticity to keep a small protuberance  $g$ , on its back always pressing against the face of the diaphragm.

H is a stationary arm secured by a screw

$h$ , to the exterior of the ring C, and supporting a bearing  $i$ , for the arbor  $j$ , of the index  $c$ , and a bearing  $k$ , for a small rockshaft  $l$ , which carries the toothed sector  $m$ , gearing with the pinion  $n$ , on the index arbor. The said arm H, has also secured to one side of it a fixed stud  $p$ , occupying a position at right angles to the arbor  $j$ , and rockshaft  $l$ , which are parallel with each other. This stud  $p$ , has fitted to it an angle piece I, somewhat resembling a bell-crank, the back of which bears against the bar G, and the front of which has secured in it a pin  $q$ , which enters a slot  $s$ , in a disk J, that is secured to the rockshaft  $l$ . A slotted arm may be substituted for this disk. The angle piece I, may be made heavy enough to overcome its own friction on the stud  $p$ , and the friction of the toothed sector and pinion and keep itself in contact with the bar G, but I have represented a spring  $r$ , applied to press upon it for the purpose of overcoming the said friction.

The pressure of the steam acting upon the back of the disk B, presses it forward against the bar G, which, pressing forward with a lever-like action against the back part of the angle-piece I, raises the pin  $q$ , which turns the disk J, in the direction of the arrow marked upon it in Fig. 1, and so turns the rockshaft L, and sector  $m$ , which latter turns the pinion and index.

In the construction of the bar or lever G, I give the protuberance such a form as will insure a uniform movement of the index.

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

The combination of the curved elastic bar G, flanged ring C, and angular piece I, with the diaphragm B, and disk or arm J, in the manner herein shown and described.

HORACE T. CROCKER.

Witnesses:

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