(No Model.)

J. FARTHING.

GAS CUT-OFF.

No. 265,587. Patented Oct. 10, 1882.

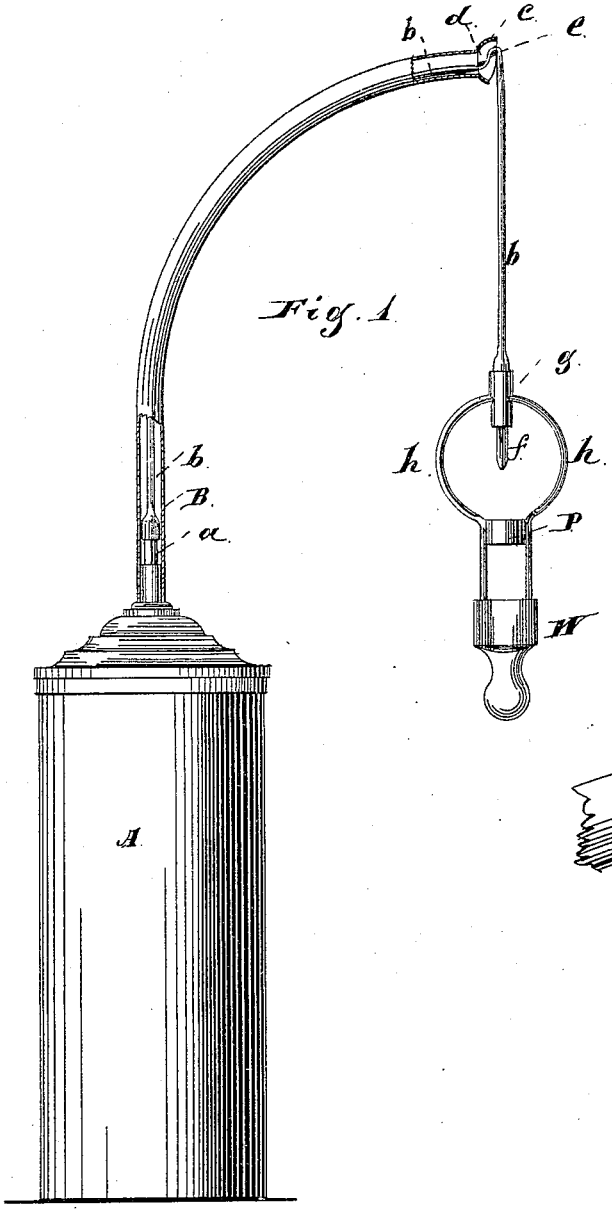

Fig. 1.

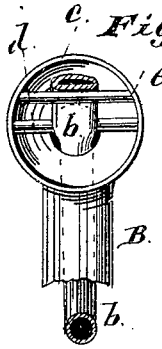

Fig. 2.

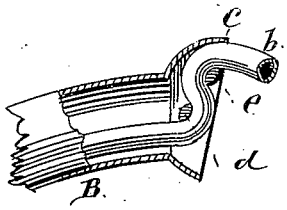

Fig. 3.

Witnesses:
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JOHN FARTHING, OF CHICAGO, ILLINOIS.

GAS CUT-OFF.

SPECIFICATION forming part of Letters Patent No. 265,587, dated October 10, 1882.

Application filed August 21, 1882. (No model.)

To all whom it may concern:

Be it known that I, JOHN FARTHING, residing at Chicago, in the county of Cook and State of Illinois, and a citizen of the United States, have invented a new and useful Improvement in Gas Cut-Offs, of which the following is a full description, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation, some parts being shown in section. Fig. 2 is an enlarged detail, being a front elevation of the parts shown. Fig. 3 is an enlarged detail.

It is common to use a jet of hydrogen gas flowing upon a platina sponge to produce a flame for lighting cigars.

The object of my invention is to provide improved means for cutting off and permitting the flow of gas, not only in the particular case mentioned, but in other places to which it may be applicable, and this I accomplish by means of a flexible tube, through which the gas flows, combined with a weight and with one or more bars with which the tube comes in contact, the parts being so arranged that the action of the weight closes the tube and cuts off the flow of gas, and when the weight is raised the gas can then flow through the tube.

In the drawings, A represents a receptacle for gas. *a* is a tube secured to such receptacle.

b is a flexible tube, preferably of rubber, one end of which is secured to the tube *a*.

B is a metal tube, one end of which is secured to the receptacle A. The outer end of this tube is provided with a head or enlargement, *c*.

d e are two bars or rods secured in the head *c*, and passing over the opening at the outer end of tube B. The flexible tube *b* passes through the tube B, and, as shown, passes under the bar *d*, then up between the two bars *d e*, over the bar *e*, and thence downward, its outer end being secured to a short tube, *f*, which may be of glass or other material.

g is a tube or collar fastened to the tube *b*.

h are two wires or rods connected permanently to the collar or tube *g* and carried downward in the form shown or in other suitable form. At the lower ends of these two rods is a weight, W.

P is a receptacle secured to the wires *h*, in which receptacle is located a platina sponge.

The operation is as follows: When the weight W is free its action will of course have a tendency to pull the free end of the tube *b* downward, which will draw the tube over the bars *d e* with sufficient force to close the tube, so that no gas can pass from the receptacle A beyond the bars *d e*. If the weight be raised sufficiently to relieve the tube *b* from its action, this tube will then open at the bars *d e*, as shown in Fig. 3, and then the gas can again flow. By releasing the weight it will again be brought into action, and will close the tube, as before stated. Thus I provide a very easy and efficient cut-off, and am able to permit or prevent the flow of the gas by simply lifting and releasing the weight W.

Although I have shown my devices adapted to be used in connection with a cigar-lighter, I do not limit myself to its use for this purpose, since in all cases where it is feasible to use a flexible tube for conveying gas, one end of the tube being free, my improvement may be adapted.

I have shown and described two obstructing-points, *d e;* but in some cases a single obstructing-point might be used, and the obstruction need not be technically a bar, but any suitable solid over which the tube passes and with which it comes in contact would be an equivalent for a bar. I prefer to use two bars or rods, as first described, for the reason that a lighter weight can be used than when there is only one obstruction, and the operation will also be more certain.

The flexible tube and weight might be used, substantially as described, for the purpose of cutting off the flow of some liquids, as well as that of gases, if desired.

The tube B is not a necessity, its principal office being to furnish a support for the bars *d e*. These bars might be supported in any other suitable manner, according to circumstances.

What I claim as new, and desire to secure by Letters Patent, is as follows:

In combination with a receptacle, A, a flexible tube which passes over a bar or other suitable solid, and a weight connected with the free end of the tube, whereby the action of the weight will close the tube, and when the weight is lifted the tube will open, substantially as and for the purpose specified.

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