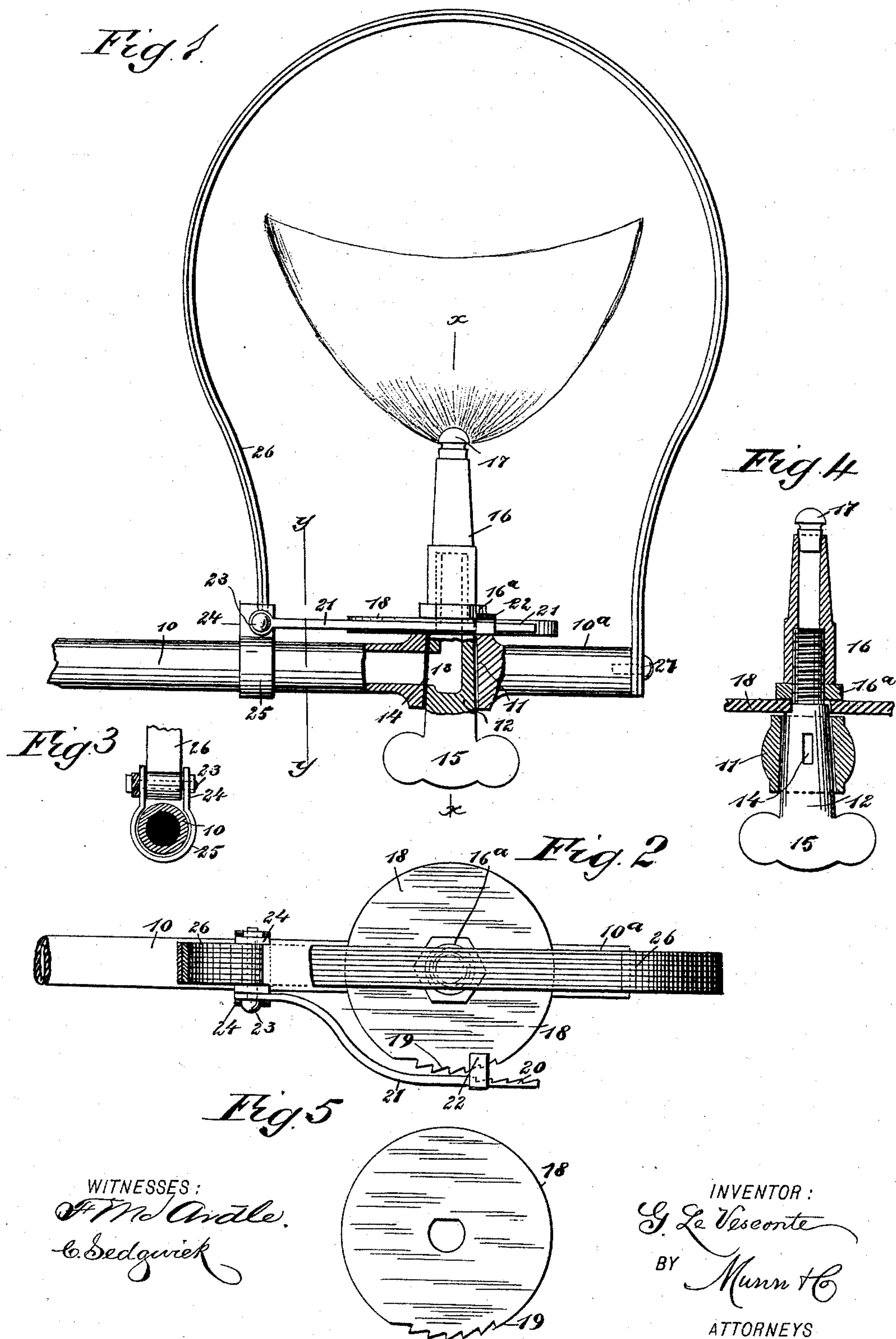


(No Model.)

G. LE VESCONTE.  
GAS BURNER ATTACHMENT.

No. 482,580.

Patented Sept. 13, 1892.





# UNITED STATES PATENT OFFICE.

GEORGE LE VESCONTE, OF MINNEAPOLIS, MINNESOTA.

## GAS-BURNER ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 482,580, dated September 13, 1892.

Application filed December 11, 1891. Serial No. 414,722. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE LE VESCONTE, of Minneapolis, in the county of Hennepin and State of Minnesota, have invented a new and Improved Gas-Burner Attachment, of which the following is a full, clear, and exact description.

My invention relates to improvements in gas-burner attachments; and the object of my invention is to produce an extremely simple and cheap device which may be secured to or connected with a gas-burner and which will automatically operate to turn off the supply of gas when the gas-light is blown out, whether through ignorance or by accident, and which will also hold the gas-jet closed, so that no damage can result from an accidental discharge of gas.

To this end my invention consists in certain features of construction and combinations of parts, which will be hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a broken side elevation, partly in section, of the apparatus embodying my invention. Fig. 2 is a broken plan view of the same. Fig. 3 is a cross-section on the line *y y* in Fig. 1. Fig. 4 is a cross-section on the line *x x* in Fig. 1, and Fig. 5 is a detail plan view of the ratchet-plate.

The gas is supplied to the burner through a pipe 10, which may be connected with the ordinary supply-pipes, and this pipe is thickened and provided with a transverse bore, as shown at 11, and mounted to turn in this bore is a hollow valve 12, having a bore 13 opening through its upper end and having a side port 14, adapted to align with the bore of the pipe 10, so that the gas may flow upward through the valve to the burner. The lower end of the valve terminates in a thumb-piece 15, by means of which it may be turned in the usual way. The upper portion of the valve projects above the pipe 10 and is exteriorly screw-threaded, so that the jet-pipe 16 may be screwed upon it, and the jet-pipe is prevented from working loose by means of

a suitable jam-nut 16<sup>a</sup>. The jet-pipe 16 has at its upper end the usual burner-tip 17.

Beneath the jam-nut 16<sup>a</sup> is a disk 18, which has a central bore to enable it to be placed upon the valve 12, and the valve and disk are flattened on one side of the bore, so that both may turn together. The disk has on one edge ratchet-teeth 19, which are adapted to engage similar teeth 20 on the spring 21, the spring having a guide 22, which overlaps the disk and causes the teeth to register accurately, and one end of this spring 21 is mounted on a pin or bolt 23, which projects through the upwardly-extending ears 24 of the slide 25, which slide is held to move on the pipe 10. The rivet or bolt 23 also supports one end of a composite arched band 26, which is curved upward and over the gas-burner 17 and which has one end secured, as shown at 27, to a solid prolongation 10<sup>a</sup> of the pipe 10. This metallic band 26 is composed of two parts, thus forming a double band, and the parts are of metals having different degrees of expansion—such, for instance, as steel and brass—the two parts being held snugly together, so as to form a double band which will practically be one band. It will be understood that it is not necessary that the disk 18 be used, as a segment of a disk would operate in the same manner.

The operation of the device is as follows: The disk 18 and spring 21 will normally be in the position shown in Fig. 2, and when the gas is turned on the valve 12 is turned so that the port 14 will register with the bore of the pipe 10. When the gas is lighted, the heat expands the composite arched band 26, and the greater expansion of the brass carries with it the steel of the band and causes the free end of the band to expand and move laterally upon the pipe 10, thus carrying the slide 25 with it, and the slide retracts the spring 21, so that the teeth 20 of the spring engage the teeth 19 of the disk 18. If the gas-light is extinguished, the metals composing the band 26 quickly cool, and the contraction of the metals, which will be augmented by the spring action of the steel in the band, causes the slide 25 to move quickly back to its normal position, and the teeth 20 of the spring



21, engaging the teeth on the disk 18, will turn the disk and valve 12, connected therewith, thus turning the port 14 so that it will not register with the pipe 10, and consequently  
5 shutting off the supply of gas.

From the foregoing description it will be seen that the device described is of simple construction, and it will be understood that it cannot possibly fail to work.

10 Having thus fully described my invention, I claim as new, and desire to secure by Letters Patent—

1. The combination, with a gas-pipe provided with a vertical key and a burner carried by the upper end of the key, of the metallic band secured fixedly at one end to the  
15 gas-pipe and curved upward over the burner and downward and operating connections between the lower end of the band and the  
20 said key, substantially as set forth.

2. The combination, with the gas-pipe having a burner-controlling revoluble valve mounted therein, of a slide mounted on the gas-pipe, a metallic band extending above  
25 the burner, said band having one end fixed to the pipe and the other pivoted to the slide, and a ratchet connection between the slide and valve, whereby the latter will be operated by the movement of the slide, substantially  
30 as described.

3. The combination, with the gas-pipe having a revoluble burner-controlling valve mounted therein, of a slide mounted upon

the pipe, a band formed of layers of dissimilar metals, having one end secured to the pipe  
35 and the other end pivoted to the slide, and a ratchet mechanism connecting the slide and valve and adapted to operate the latter, substantially as described.

4. The combination, with the gas-pipe and the revoluble burner-controlling valve mounted therein, of a slide mounted on the gas-pipe, a ratchet secured to the valve, a toothed spring-pawl secured to the slide and adapted to engage the ratchet-teeth, and a composite  
45 metallic band having one end secured to the gas-pipe and the opposite end pivoted to the slide, the said band being arranged adjacent to the burner, substantially as set forth.

5. The combination, with the gas-pipe and the revoluble hollow valve mounted transversely therein, said valve having a port adapted to register with the bore of the gas-pipe and carrying the gas-burner, of a ratchet-disk secured to the valve, a slide mounted on  
55 the gas-pipe and carrying a toothed spring-pawl adapted to engage the ratchet-disk, and an arched band of dissimilar metals having one end secured to a prolongation of the gas-pipe and the opposite end pivoted to the  
60 slide, the said band extending above the gas-burner, substantially as described.

GEORGE LE VESCONTE.

Witnesses:

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