A. B. SHAW.

STREET LAMP.

APPLICATION FILED APR. 8, 1911.

1,140,192.

Patented May 18, 1915.

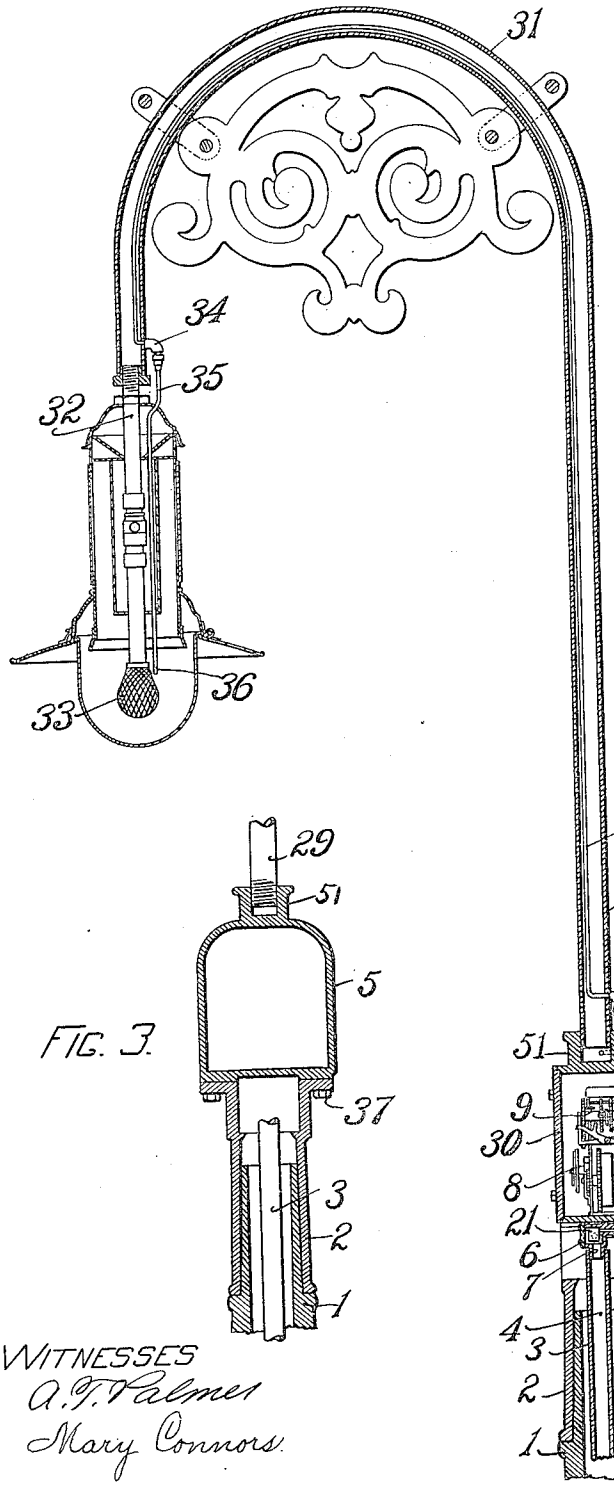


FIG. 1.

FIG. 3.

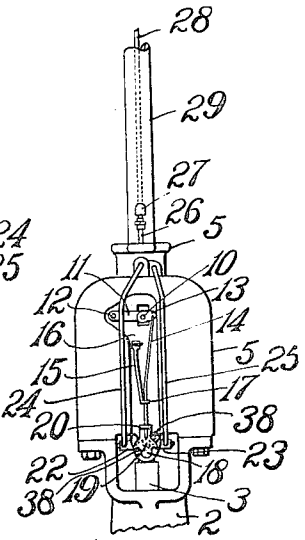


FIG. 2.

WITNESSES

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STREET-LAMP.

1,140,192. Specification of Letters Patent. Patented May 18, 1915.

Application filed April 8, 1911. Serial No. 619,859.

To all whom it may concern:

Be it known that I, AI B. SHAW, a citizen of the United States, residing at West Medford, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Street-Lamps, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to improvements in street-lamps in which gas or other illuminating material is used and where the gas-burner and pilot-burner are automatically lighted and extinguished at predetermined times.

The invention relates particularly to street-lamps in which the time and automatic gas-lighting mechanism are in a casing outside the lantern, the casing forming a part of the lamp-post and being a standard on top of the base post for supporting the main gas pipe to which the lantern or lanterns are suspended.

Heretofore in street-lamps the pipe, which forms the gas-riser and conveys the gas to the burner, projected through the bottom of the lantern, the burners being attached thereto with the lantern. Also, as shown in my former Patents No. 634,856 dated October 10, 1899, No. 704,391, dated July 8, 1902 and No. 868,297 dated Oct. 15, 1907, I found it desirable that the valves in an automatic device controlling the flow of gas to the burners should be as near the burners as possible and I attached the automatic device to the riser just below or within the lantern by means of some suitable connecting mechanism between the casing for the time mechanism and said riser but in my present invention the casing inclosing the automatic gas-lighting mechanism need not be adjacent to the lamp but may be at some distance from the lamp.

Another feature of my invention is the inserting of the automatic gas-lighting and extinguishing apparatus between two sections of the main gas pipe and I have shown the same as being on top of a post, the casing being in the form of a standard and supports a U-shaped gas pipe or riser carrying at its free end the inverted lantern. It is thus seen, that the automatic gas-lighting and extinguishing apparatus is in a casing easy of access and sufficiently below and away from the burner so that little or no shadow is cast by said casing upon the ground below the lamp.

The invention consists in the combination of elements and in certain parts of novel construction entailed in the combination of said elements to obtain the desired result.

Some of the features of the present invention are shown but not claimed in a co-pending application of mine filed April 8, 1911, Serial No. 619,861, and issued Sept. 9, 1913, as Letters Patent No. 1,072,998.

A full understanding of my invention can best be given by a detailed description of a preferred construction embodying the various features of my invention, and such a description will now be given in connection with the accompanying drawings, and I attain my object by the mechanism there illustrated, showing such preferred construction, and the features forming the invention will then be specifically pointed out in the claims.

In the accompanying drawings, Figure 1 represents a sectional side elevation of my improved device. Fig. 2 is a rear elevation of a portion of the same. Fig. 3 is a central sectional view of a portion of the same.

Latitude is allowed herein as to details, as they may be changed or varied at will without departing from the spirit of my invention and the same yet remain intact and be protected.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

Upon the lamp post or base 1 from which extends the gas pipe or riser 3, is the casing or standard 2, to which is secured by bolts 37 the standard or casing 5 which incloses the greater part of my automatic gas-lighting and extinguishing devices 9 operated by the time mechanism 8 also within the casing 5. Attached to the bottom of the casing or made integral with it is the bracket coupling 6 provided with the threaded stem piece 7 which engages the upper end of the gas pipe or riser 3 and through which stem piece flows gas from the passage 4 of the gas pipe or riser.

Extending outward from the mechanism 9 through the back side of the casing 5 is a stud or pin 10 to which it attached the free end of the lever 11 which is fulcrumed at 12 within a recess in the casing.

The stud or pin 10 carries an arm 13 to

the opposite or free end of which is attached the upper end of a rod 14. This rod is provided with a cam 18 operating against a member 38 secured on the outer end of the shaft 19 and a hooked spring 15, fastened at 16 to the rear side of the case 5, tends to keep the rod 14 in its proper position so that the member 38 is moved or turned according to the upward and downward movement of the rod 14. The shaft 19 has its bearings in the bracket coupling 6 and carries on its free end within the bracket coupling 6 the valve 21 which controls the supply of gas flowing into the arm 22 for the pilot-burner and which also controls the supply of gas flowing into the arm 23 for the main burner. These two arms together with the threaded stem piece 7 form a T-shaped coupling.

The arm 23 is provided with the supplemental pipe 25 connected thereto, which pipe extends upward and through the upper portion of the casing 5 into a duct or passage in the closed boss or socket 51 which has threaded thereto the lower end of the lamp support gas pipe or main gas pipe or riser 29; the supplemental gas pipe 25 preferably extending into the passage below the lower edge of the main gas pipe or riser 29.

From arm 22 a supplemental pipe 24 extends upward passing into the upper portion of the casing 5 and into the short pipe 26 which short pipe extends upward and out of the casing and is connected by the union ell or elbow 27 to the pilot gas pipe 28 located within the main gas pipe or riser 29, which pipe 28 carries gas to the pilot burner 36, the gas for the main burner being carried by the main gas pipe or riser 29.

This main gas pipe or riser in the form shown in Fig. 1 extends upward having a U-shaped bend 31 and carries at its free end the main burner tube 32, which tube is provided with the inverted burner 33 adjacent to the pilot gas burner 36. The pilot gas pipe 28 extends upward through the main gas pipe or riser 29 and outward near the end of the riser and is connected by the elbow 34 to the pilot burner tube 35, which pilot burner tube extends into the upper portion of the lantern and downward parallel with the main burner tube 32.

It is thus seen that the supply of gas to the main burner and to the pilot burner can be regulated by mechanism situated at any distance from the lantern and that when this mechanism is placed within a casing 5 that the casing may be placed between any sections of the lamp post, being preferably placed at a distance from the lantern so as not to cast a shadow on the ground below the lantern.

It is to be understood that my invention is not limited to the specific details of construction shown in the accompanying drawings, but that said details may be varied in the practical carrying out of my invention. It is also to be understood that the combinations specifically set forth in the several claims are intended to be separately claimed without limitation to the use in connection therewith of other features and details of construction illustrated.

Having thus fully described the nature, construction and the operation of my invention, I wish to secure by Letters Patent and to claim:—

1. In a street lamp, the combination of a standard adapted to be secured to the top of a post and provided with a casing having at its upper end a closed boss; a gas supply pipe the lower end of which is secured in said boss; a lantern supported by said supply pipe; a pipe exterior to said casing leading to said gas supply pipe from the main supply; and means located within said casing for automatically controlling the supply of gas to the lantern.

2. In a street lamp, the combination of a standard adapted to be secured to the top of a post and provided with a casing having at its upper end a closed boss; a gas supply pipe the lower end of which is secured to said boss; a lantern on the other end of said pipe; a pipe exterior to said casing leading to said supply pipe from the main supply; and mechanism within said casing for automatically controlling the admission of gas to said lantern supporting supply pipe.

3. In a street lamp, the combination of a standard adapted to be secured to the top of a post; a casing secured to the top of said standard and having at its upper end a closed boss; a gas supply pipe the lower end of which is secured to said boss; a lantern on the other end of said pipe; a gas riser extending through said post into said standard and passing around said casing to said supply pipe; and means within said casing interposed between said riser and said lantern supporting pipe for automatically controlling the supply of gas to said lantern.

4. In a street lamp, the combination of a standard adapted to be secured to the top of a post; a casing secured to the top thereof adapted to inclose devices for controlling the supply of gas to the lamp and provided with a closed threaded boss extending from its upper side; a supply pipe threaded to said boss; a lantern carried thereby; and a pipe exterior to said casing leading to said supply pipe from the main supply having a valve therein operable by said controlling devices.

5. In a street lamp, the combination of a standard adapted to be secured to the top of a post and provided with a casing to receive the devices for controlling the supply of gas to the lamp, said casing having a closed boss at its upper end; a gas supply pipe extend-

ing upwardly from said boss; a lantern carried thereby; a gas riser extending through the bottom of said standard; and a supplemental pipe extending around said casing and connecting said riser and pipe.

6. In a street lamp, the combination of a standard adapted to be secured to the top of a post and provided with a casing to receive the devices for controlling the supply of gas to the lamp, said casing having a closed boss at its upper end; a gas supply pipe extending upwardly from said boss; a lantern carried thereby; a pilot gas pipe carried by the gas supply pipe; a gas riser extending through the bottom of said standard; and supplemental pipes extending around said casing and connecting said riser and pipes.

7. In a street lamp, the combination of a standard provided with a casing adapted to carry devices for controlling the supply of gas to the lamp and having a closed boss at its upper end; a gas riser below said standard; a gas supply pipe extending upwardly from said boss; a lantern carried thereby, a pilot gas pipe carried within said supply pipe; and supplemental pipes passing around the casing and connecting the gas riser with both the gas supply pipe and the pilot pipe.

8. In a street lamp, the combination of a standard having a casing adapted to carry devices for controlling the supply of gas to the lamp and provided with a closed boss at its upper end; a gas riser below the standard; a gas supply pipe extending upwardly from said boss; a lantern carried thereby; a coupling within said standard and connected to the top of said riser; a pilot gas pipe leading to said lantern; and supplemental pipes extending around the outer side of the casing and connecting the coupling with both the main gas supply pipe and said pilot gas pipe.

9. In a street lamp, the combination of a standard having a casing adapted to carry devices for controlling the supply of gas to the lamp and provided with a closed boss at its upper end; a gas riser below the standard; a gas supply pipe extending upwardly from said boss; a lantern carried thereby; a coupling within said standard and connected to the top of said riser; a pilot gas pipe leading to said lantern through said main gas supply pipe but extending through the wall thereof at each end; and supplemental pipes extending around the outer side of the casing and connecting the coupling with both the main gas supply pipe and said pilot gas pipe.

10. In a street lamp, the combination of a standard having a casing adapted to carry devices for controlling the supply of gas to the lamp and provided with a closed boss at its upper end; a gas supply pipe attached to said boss; a lantern carried thereby; a pilot gas pipe extending through the wall of said gas supply pipe along the interior thereof and outwardly through the wall thereof at the opposite end of said supply pipe; a pilot burner tube connected with said pipe; and mechanism connecting the gas riser with both said gas supply pipe and said pilot pipe.

11. In a street lamp, the combination of a standard adapted to be secured to the top of a post and having a casing adapted to control the supply of gas to the lamp and provided with a closed boss; a gas supply pipe extending upwardly from said boss; a lantern carried thereby; a pilot pipe extending from said standard to said lantern; a gas riser below said standard; supplemental pipes carried on the outer side of said casing; a coupling interposed between said supplemental pipes and said riser; a valve therein; an oscillating arm secured to said valve; and means for oscillating said arm positioned within said casing.

12. In a street lamp, the combination of a standard adapted to be secured to the top of a post and having a casing adapted to control the supply of gas to the lamp and provided with a closed boss; a gas supply pipe extending upwardly from said boss; a lantern carried thereby; a pilot pipe extending from said standard to said lantern; a gas riser below said standard; supplemental pipes carried on the outer side of said casing; a coupling interposed between said supplemental pipes and said riser; a valve therein; an oscillating arm secured to said valve; and means for oscillating said arm.

13. In a street lamp, the combination of a standard adapted to be secured to the top of a post and having a casing adapted to control the supply of gas to the lamp and provided with a closed boss; a gas supply pipe extending upwardly from said boss; a lantern carried thereby; a pilot pipe extending from said standard to said lantern; a gas riser below said standard; supplemental pipes carried on the outer side of said casing; a coupling interposed between said supplemental pipes and said riser; an oscillating valve therein provided with a stem extending through the wall of said coupling; an arm on said stem; and means for oscillating said arm.

In testimony whereof I affix my signature in presence of two witnesses.

AI B. SHAW.

Witnesses:
JAMES H. STARK,
JOHN C. GORDON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."