H. S. BELDEN.

Street-Lamp.

No. 203,237. Patented May 7, 1878.

Fig. 2.

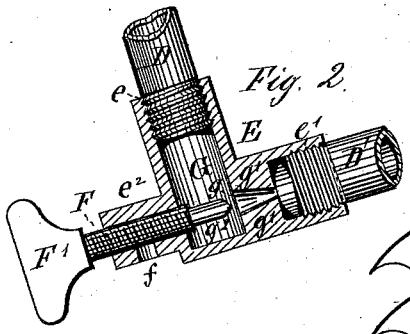
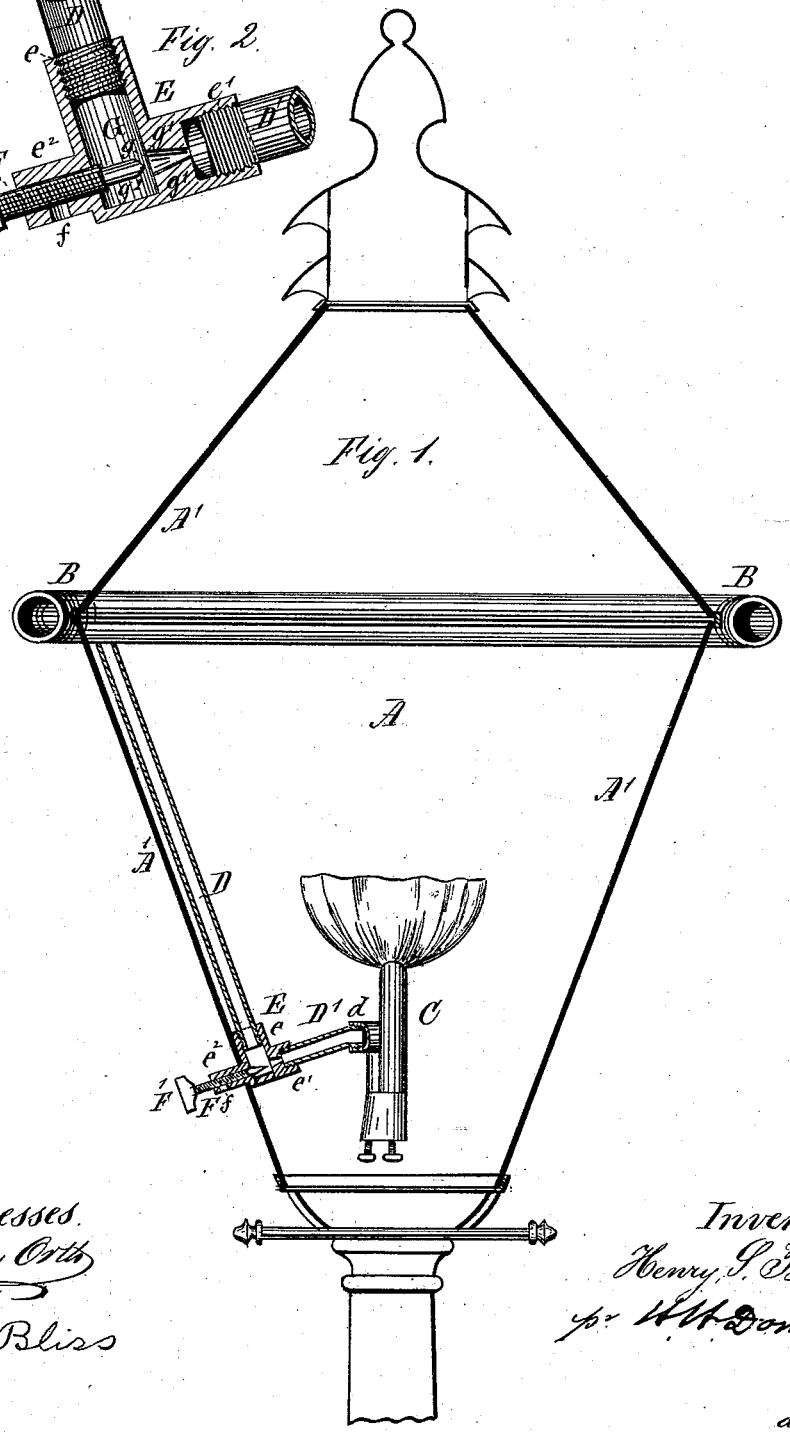


Fig. 1.



Witnesses.

Henry Orth

H. A. Bliss

Inventor.

Henry S. Belden

per W. W. Dowbleday

atty.

UNITED STATES PATENT OFFICE.

HENRY S. BELDEN, OF CANTON, OHIO.

IMPROVEMENT IN STREET-LAMPS.

Specification forming part of Letters Patent No. **203,237**, dated May 7, 1878; application filed March 6, 1878.

To all whom it may concern:

Be it known that I, HENRY S. BELDEN, of Canton, in the county of Stark and State of Ohio, have invented certain new and useful Improvements in Street-Lamps; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawing, and to letters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in devices for supplying and controlling the supply of oil to the burners in street-lamps or lanterns.

It consists in so constructing such supplying and controlling devices that they shall, notwithstanding variations in the temperature, be kept in proper working condition, and be easily manipulated without interfering with the operation of the burner, and also in providing an efficient and simple means for withdrawing from the oil, in its passage to the burner, all impurities.

Figure 1 is a view of my improved apparatus shown attached to an ordinary street-lamp. Fig. 2 is a vertical section of the stop-cock and trap devices.

A represents the body of an ordinary street-lamp, provided with a vertical or somewhat sloping wall or walls, A′. B is a reservoir, attached in any of the usual ways to the lamp. C represents the burner, connected with the reservoir by means of the feed-pipes D D′. These pipes D D′ are connected together by means of elbow-joint E, which is provided with suitable screw-threaded sockets e e^1 for their reception. e^2 is a small supplemental tube attached to the rear side of the elbow-joint E. It is internally screw-threaded, and extends through the wall A′ of the lamp, to provide a bearing for the valve-screw F. The head or handle F′ of said valve-screw is outside of the lantern, and permits a ready manipulation of the valve within the lantern. Below the lower end of tube D a chamber, G, is formed in the body of the socket. This chamber G communicates with pipe D′ through an aperture, g, formed in the wall g^1. g^2 is a conical valve formed around the aperture g, adapted to receive and fit tightly the pointed or conical end of the valve-screw F. The chamber G is situated preferably in a horizontal plane lower than that of the delivery end d of tube D′, so that water or impurities of a liquid or a solid nature may be permitted to settle in said chamber G while the oil is passing from the reservoir to the burner. f is an orifice in the under side of tube e^2, outside of the wall A′ of the lantern, through which the sediment or impurities may be allowed to escape from the chamber or trap G by withdrawing the valve-screw F partially from its bearing.

Those constructions in which the oil-conducting devices and the regulating valve or stop-cock are situated upon the outside of the lantern have been found very objectionable from the interference caused by ice and snow in winter, and have been faulty, moreover, from the fact that the supply-pipe cannot be supported securely. Upon the other hand, those constructions in which both the valve and the valve-screw were located entirely upon the inside of the burner have been found objectionable from the fact that in manipulating them the lamp must be opened several times before the burner is in proper working order, and from the fact that the handle of the screw becomes very hot from the heat of the burner.

One of the purposes of this invention is to avoid the difficulties that have been met with in both of the above constructions. It is accomplished by placing the supplying-pipes and regulating devices upon the inside of the lantern and the valve-screw (or devices for operating the stop-cock) upon the outside of the lantern. Should the amount of foreign matters or impurities in the elbow-joint of the two feed-pipes become so great as to clog the pipes or interfere with the proper working of the burner, it can generally be detected by the working of the valve-screw. In order to remove such impurities, it is only necessary to withdraw the valve-screw until the inner end shall be outside of the aperture f, when the flow of oil will wash the impurities through said orifice. Thus the water and dirt will escape on the outside of the lantern,

and may be drawn off without extinguishing the light, and without spilling any oil upon the inside of the lantern.

What I claim is—

1. The feed-pipes D D′, situated inside of the lamp, in combination with a valve-rod projecting through the wall of the lamp to control from the outside the flow of oil, as set forth.

2. In combination with the feed-pipe, a chamber situated upon the inside of the lamp for collecting impurities, and a duct extending through the wall of the lamp to withdraw such impurities on the outside, as set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

HENRY S. BELDEN.

Witnesses:
JOHN C. WELTY,
JAMES VOLLEBY.