

M. Andrew's Imp^d Gas Illuminator.

No. 118,669.

Patented Sep. 5, 1871.

Fig. 1.

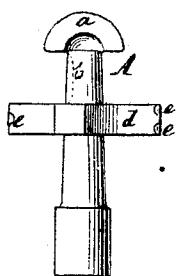
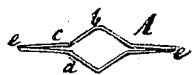


Fig. 2.



Fig. 3.



Witnesses
C. Wähler.
E. Bilhuter.

Inventor.
M. Andrew
Per. S. L. Wood, Secy.
Att.

UNITED STATES PATENT OFFICE.

MATTHEW ANDREW, OF NEW YORK, N. Y.

IMPROVEMENT IN GAS-ILLUMINATORS.

Specification forming part of Letters Patent No. 118,669, dated September 5, 1871.

To all whom it may concern:

Be it known that I, MATTHEW ANDREW, of the city, county, and State of New York, have invented a new and Improved Gas-Illuminator; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing, in which drawing—

Figure 1 represents a front view of this invention. Fig. 2 is a transverse section of the same. Fig. 3 is a horizontal section of the same.

Similar letters indicate corresponding parts.

This invention relates to a gas-illuminator composed of a semi-annular plate mounted on a concave arm, which extends from a pressure-clamp, the concave depression in the arm being of such a depth that by slipping the pressure-clamp over a gas-burner the inner surface of the semi-annular plate can be readily adjusted in the plane of the flame, and thereby the illuminating power of the flame is materially improved. The pressure-clamp consists of two V-shaped leaves, one of which is stamped out solid with the concave arm and the semi-annular plate, while the two leaves are connected at their ends so as to leave a square opening between them and to allow of spreading them apart to accommodate said opening to the diameter of the burner on which the illuminator is to be used, while the leaves are elastic, so as to hug the burner tightly and retain the illuminator firmly in position.

In the drawing, A designates my gas-illuminator, which consists of a semi-annular disk, *a*, formed on the top end of an arm, *b*, which is hollowed out sufficiently to allow of adjusting the flat surface over a gas-burner in the plane of the flame, as shown in Fig. 2. With the arm is connected a plate, *c*, which is V-shaped, and which, together with said arm and the semi-annular disk, is stamped out of one and the same piece of sheet

metal. With the plate *c* is connected another plate, *d*, of similar shape, each of the plates being provided with lips *e* at its ends to catch over the ends of the other plates, as shown in Fig. 3, so that a square opening is left between said plates and that the same can be sprung apart to accommodate the opening between the plates to the diameter of the burner to which the illuminator is attached, said plates being elastic, so that they will hug the burner closely, and the illuminator will be firmly retained in the required position. This feature is of the greatest importance, since the position of the semi-annular disk *a* is strictly defined, and unless said disk is brought precisely in the correct position the effect of the illuminator is destroyed. By the combined action of the pressure-clamp and of the concave depression of the arm *b* the illuminator is enabled to lie close up to the body of the burner, as shown in Fig. 2, and the semi-annular disk, when once adjusted in the correct position, will readily retain the same, and the illuminating power of the flame is materially improved.

I do not claim, broadly, as my invention a plate to be adjusted on a gas-burner for the purpose of increasing the illuminating power of the flame, such plates being shown and described in the patents of Cummings & Douglass, January 15, 1856; J. Scholl, December 24, 1867; and C. L. Brown, May 12, 1868; and I distinctly disclaim everything shown and described in these patents.

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

A gas-illuminator, composed of a semi-annular disk, *a*, concave arm *b*, and pressure-clamp *c d*, all as herein shown and described.

MATTH. ANDREW.

Witnesses:

W. HAUFF,
E. F. KASTENHUBER.