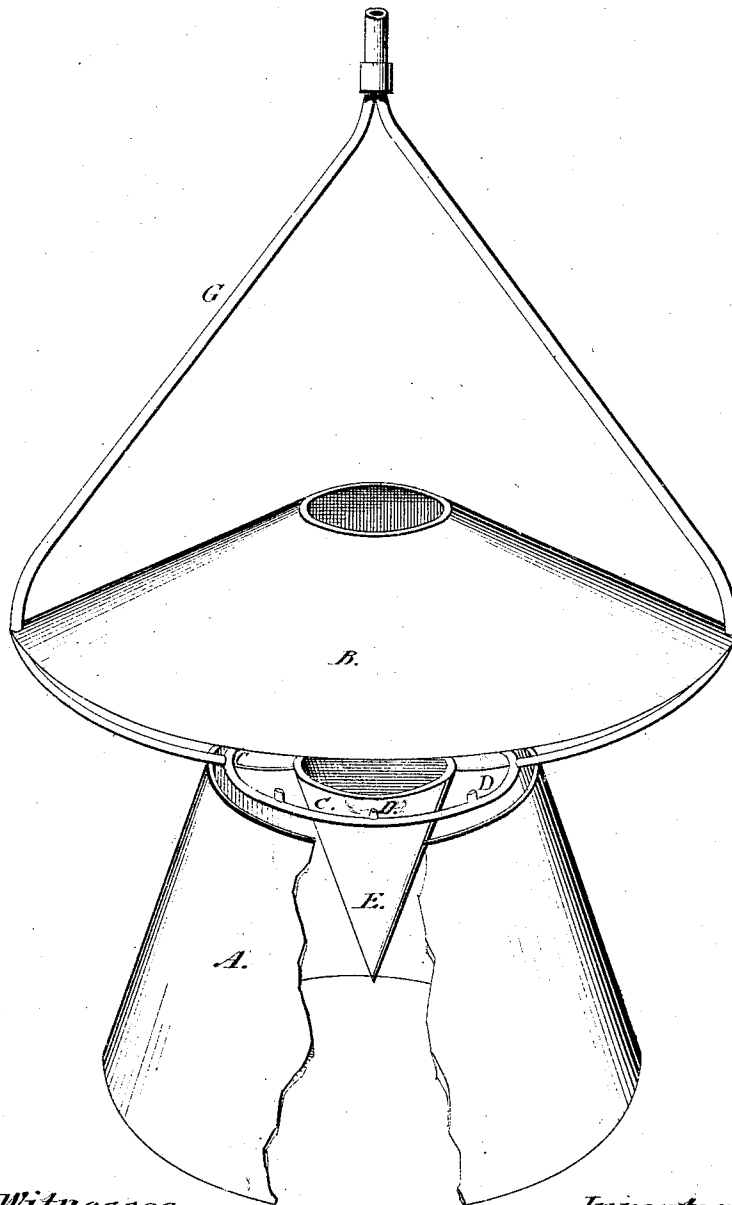


H. B. WALBRIDGE.

Reflectors.

No. 140.325.

Patented June 24, 1873.



Witnesses;
John F. G. Pomeroy.
Oliver C. Walbridge.

Inventor;
Henry B. Walbridge.

UNITED STATES PATENT OFFICE.

HENRY B. WALBRIDGE, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN REFLECTORS.

Specification forming part of Letters Patent No. **140,325**, dated June 24, 1873; application filed June 10, 1873.

To all whom it may concern:

Be it known that I, HENRY B. WALBRIDGE, of Brooklyn, in the county of Kings, State of New York, have invented certain Improvements in Reflectors, of which the following is a full and exact description, reference being had to the accompanying drawing, forming a part of this application.

A represents a truncated hollow cone or pyramid, made usually of sheet-tin, or polished sheet metal; or it may be silvered on the inner side, or covered with silvered glass, or formed with a silvered surface covered with transparent glass, in any of the known ways of forming the surface of reflectors. G represents the support, which is formed of gas-pipe in the usual manner, and serves to conduct the gas to the burners, as well as to sustain the reflector. The burners D are attached to a circular pipe, C, communicating with G, and located just within the upper edge of the truncated cone A. The burners are disposed at equal distances around the circle, and preferably project inwardly toward the center, but they may be placed perpendicularly. Within the truncated cone is centrally suspended, by attachments from pipe C, or in any suitable manner, an inverted cone, E, the base of which is in the plane of the upper base of the truncated cone A. The object of this central cone is to increase the reflection of light downward by reflecting such rays as are radiated toward the center. The space between the upper edge of the truncated cone A and the base of the inner cone E should be such that the gas-flame when projecting horizontally will nearly cross and fill it without projecting over or upon the inner cone, so as to burn or unduly heat it. Above this system of reflectors is placed a second

reflector, B, formed of a truncated hollow cone of flatter shape, and centrally perforated to allow the gases of combustion to escape upward. The object of this second reflector is to collect such rays as are radiated upward, and to project them downward with as little loss as possible. The angle of the flare should be so arranged that the light reflected shall take directions as nearly as possible parallel to the sides of the lower cones, in order to avoid infringing on them and casting shadows of said lower cones.

In constructing my reflectors, regard is had to the extent of the area to be illuminated. If it be small, as in the case of show-windows, the flare of the cones should be so arranged as to confine the body of light within the area to be illuminated. In public halls or saloons, where it is desirable to disperse the rays over a larger area, and not concentrate them, the flare should be expanded. The dimensions and the number of gas-jets employed can also be varied at pleasure. The central cone E is not absolutely necessary, as, where small areas are to be illuminated, one or two gas-jets are sufficient, and the dimensions can then be so contracted that the flame will cover nearly the whole opening occupied by the central cone.

I claim as my invention—

The improved reflector herein described, consisting of the reflecting hollow truncated cones A and B, the central reflector E, and the gas burners or jets, one or more, located as described, for the purpose specified.

HENRY B. WALBRIDGE.

Witnesses:

ALICE C. WALBRIDGE,
JOHN F. C. PREINKERT.