

(No Model.)

E. G. GOLDER.
GAS BURNER.

No. 581,025.

Patented Apr. 20, 1897.

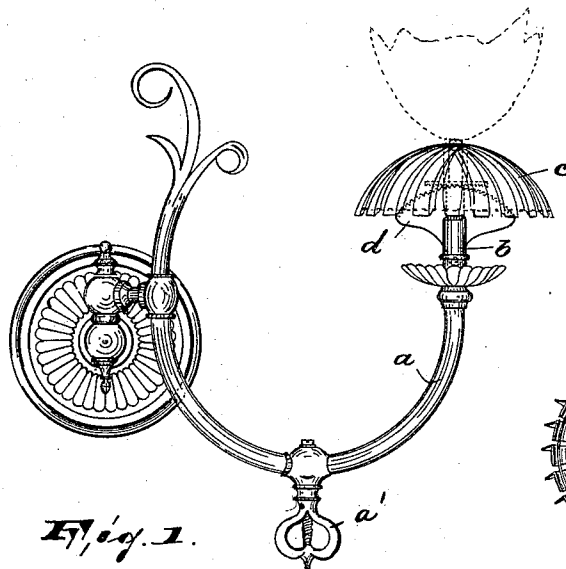


Fig. 1.

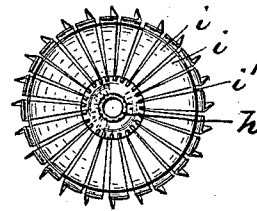


Fig. 4.

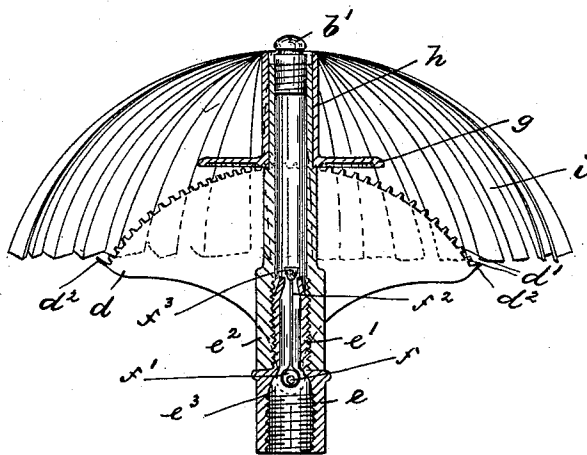


Fig. 2.

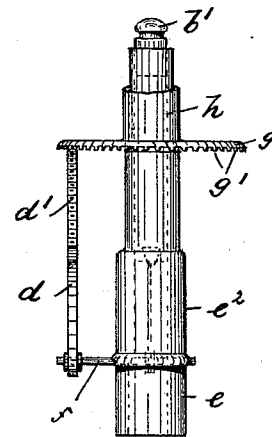


Fig. 3.

WITNESSES:

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UNITED STATES PATENT OFFICE.

EMANUEL G. GOLDER, OF LAKE VIEW, NEW JERSEY.

GAS-BURNER.

SPECIFICATION forming part of Letters Patent No. 581,025, dated April 20, 1897.

Application filed December 10, 1896. Serial No. 615,107. (No model.)

To all whom it may concern:

Be it known that I, EMANUEL G. GOLDER, a citizen of the United States, residing in Lake View, county of Passaic, and State of New Jersey, have invented certain new and useful Improvements in Gas-Burners; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

The object of this invention is to provide a gas-burner the flame of which cannot be blown out without simultaneously shutting off the gas-supply, of simple, strong, and durable construction, ornamental in appearance, and reliable in operation.

The invention consists in the improved gas-burner, its auxiliary valve-operating mechanism, and in the combination and arrangement of the various parts thereof, substantially as will be hereinafter more fully described, and finally embodied in the clauses of the claim.

In the accompanying drawings, in which like letters of reference indicate corresponding parts in each of the several views, Figure 1 is an elevation of a gas-bracket provided with my improved burner; Fig. 2, an enlarged central sectional view of the latter; Fig. 3, a side elevation of the burner, the wind-turbine or fan-wheel being removed; and Fig. 4, a detail inside view of the said wind-turbine or fan-wheel.

In said drawings, *a* represents a gas-bracket having the cock *a'*. On the end of said bracket is secured by screw-thread connection *e*³ or in any desired manner the burner *b*, consisting of the tube *e*, provided with the externally-threaded sleeve *e'*, adapted to receive the tube *e*², carrying at its free end the tip *b'*. The upper end of the sleeve *e'* forms a valve-seat for the valve *f*³, arranged on the stem or rod *f*², projecting upward from the eccentric *f'*, which in turn is arranged and loosely mounted on the shaft or axle *f*, having airtight bearings in the tube *e* and projecting with one end through the latter. To said projecting portion of the shaft *f* is secured the segmental-shaped arm *d*, having its pe-

riphery provided with a series of teeth or corrugations *d'*, of which the end ones *d*² are longer and serve as stops, as hereinafter described.

On the upper portion of the tube *e*² is loosely arranged the sleeve *h*, the lower end of which is connected to a horizontally-arranged circular disk *g*, provided at its under side with teeth or corrugations *g'*, adapted to be engaged by and mesh into the teeth or corrugations *d'* of the segmental arm *d*.

To the upper portion of the sleeve *h* is secured in any desired manner the wind-turbine or fan-wheel *c*, preferably semispherical-shaped and consisting of a series of substantially L-shaped blades *i*, connected by a ring or wire *i'*, as clearly shown in the drawings.

The fan-wheel is so arranged on the sleeve *h* that its upper central portion is substantially in alinement with the opening of the tip *b'*. The arm *d* and the valve *f*³ must be so arranged and connected that when the teeth of the disk *g* engage the teeth of the central portion of the segmental arm the said valve is fully open, and when in engagement with the teeth on either end of said arm the valve is fully closed.

The projecting teeth *d*² on either end of the segmental arm *d* prevent said arm from disengaging the teeth of the disk *g*, and thus from dropping down and reopening the valve *f*³. The fan-wheel *c* is preferably made of aluminium, so as to be light in weight and easily turned or operated should an attempt be made to blow the gas-flame out.

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

1. The combination with a gas-burner, of a valve in said burner, an eccentric controlling said valve, a shaft traversing the burner and carrying the eccentric, a segmental-shaped arm secured on said shaft and provided on its periphery with teeth or notches, a horizontal disk revolubly arranged on said burner and provided with teeth or notches engaging the teeth or notches of the segmental-shaped arm, and a fan-wheel carried by said disk, all said parts, substantially as and for the purposes described.

2. The combination with a gas-burner, of a valve in said burner, a shaft controlling

said valve, a segmental-shaped arm secured on said shaft and provided on its periphery with teeth or notches, a sleeve loosely arranged on the burner, a fan-wheel carried by said sleeve, and a horizontally-arranged disk also carried by said sleeve and provided with teeth or notches engaging the teeth or notches of the segmental-shaped arm, all said parts, substantially as and for the purposes described.

3. The combination with a gas-burner, of a valve in said burner, an eccentric controlling said valve, a shaft traversing the burner and carrying the eccentric, a segmental-shaped arm secured on said shaft and provided on its periphery with teeth or notches, a sleeve loosely arranged on the burner, a fan-wheel carried by said sleeve, and a horizontally-arranged disk also carried by said sleeve and provided with teeth or notches engaging the teeth or notches of the segmental-

shaped arm, all said parts, substantially as and for the purposes described.

4. The combination with a gas-burner, of a valve in said burner, a shaft controlling said valve, a segmental-shaped arm secured on said shaft and provided on its periphery with teeth or notches and on each of its ends with a projection, a horizontal disk revolvably arranged on said burner and provided with teeth or notches engaging the teeth or notches of the segmental-shaped arm, and a fan-wheel carried by said disk, all said parts, substantially as and for the purposes described.

In testimony that I claim the foregoing I have hereunto set my hand this 5th day of December, 1896.

EMANUEL G. GOLDER.

Witnesses:

ALFRED GARTNER,
WM. D. BELL.