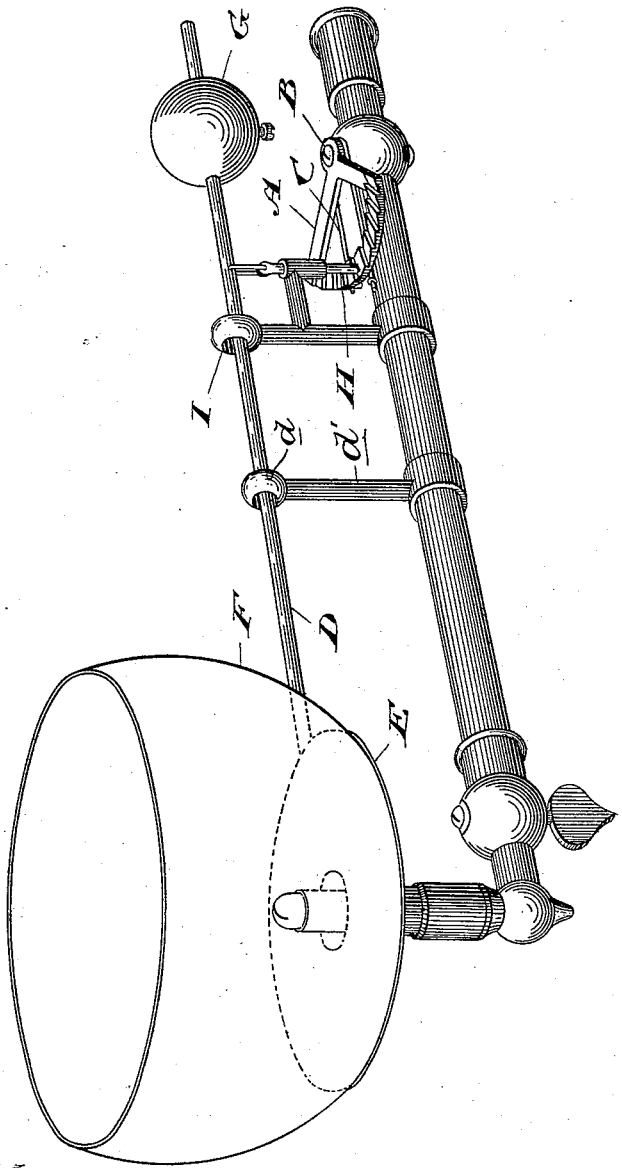
(No Model.)

E. DENNE.

CUT-OFF FOR GAS BURNERS.

No. 491,042. Patented Jan. 31, 1893.



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UNITED STATES PATENT OFFICE.

ELI DENNE, OF NEWMARKET, ASSIGNOR OF ONE-HALF TO FREDERICK ARTHUR DENNE, OF STAYNER, CANADA.

CUT-OFF FOR GAS-BURNERS.

SPECIFICATION forming part of Letters Patent No. 491,042, dated January 31, 1893.

Application filed April 25, 1892. Serial No. 430,600. (No model.) Patented in Canada June 11, 1892, No. 39,119.

To all whom it may concern:

Be it known that I, ELI DENNE, of the town of Newmarket, in the county of York, in the Province of Ontario, Canada, have invented an Improved Automatic Cut-Off for Gas-Burners, (for which I have obtained Letters Patent in the Dominion of Canada June 11, 1892, No. 39,119,) of which the following is a specification.

The object of the invention is to design a simple device by which the gas cock will be instantly cut off upon the gas being blown out, and it consists, essentially, of a notched quadrant fixed to the gas cock and actuated by a spring set to hold the cock closed, a balanced lever holding a globe to surround the burner and arranged in connection with the notched quadrant in such a manner that when the cock is turned on, it is held open by its connection with the balanced lever, which connection is instantly broken when any serious attempt is made to blow out the gas, and when broken, the tension of the spring cuts off the gas by closing the cock, substantially as hereinafter more particularly explained and then definitely claimed.

The drawing represents a perspective view of my improved cut off applied to a gas burner.

A, represents a notched quadrant fixed to the cock B, and C, represents a spring connected to the cock B, or quadrant A, in such a manner that the tension of the said spring shall hold the cock closed, but is sufficiently pliable to permit the said cock to be opened when necessary. I do not claim any particular kind of spring nor do I limit myself to any special location for it. The only thing to be observed is to see that the spring is such that when not otherwise prevented, will instantly close the cock.

D is a lever, pivoted at *d* on the upright *d'*, and supports at one end a disk E, on which the globe F, is carried. On the opposite end of the lever D, I place an adjustable weight G, which may be readily moved so as to counterbalance the weight of the disk E, and globe F, so that the lever may be made to rock on its pivot by the force of any draft sufficiently strong to blow out the gas.

H, is a vertical pin held in suitable bearings and flexibly connected to the lever D, as indicated. The bottom end of the pin H, rests upon the notches formed on the quadrant A, so that when the cock B, is opened, the said pin will engage with one of the notches and hold the cock open, notwithstanding the tension of the spring. A vertical guide I, is provided so as to hold the lever D and disk E, exactly in the center line of the burner.

With my improved cut-off, the gas is turned on and lighted as usual, but the moment that any attempt is made to blow out the gas, the lever D, is rocked on its pivot sufficiently to raise the pin H, clear of the notch with which it may at the time be engaged, when by the action of the spring C, the cock B, will be instantly turned so as to cut off the gas.

What I claim as my invention is:—

1. In a gas burner, a pivoted lever, one end carrying a horizontal disk E surrounding the gas burner and the other end of the lever in proximity to the gas cock, in combination with a spring arranged to actuate the gas cock and means for connecting the pivoted lever to the cock by which the rocking of the lever on its pivot will cause the spring to close the cock, substantially as and for the purpose specified.

2. A notched quadrant A, connected to the gas cock B, which is actuated by the spring C, in combination with the lever D, supporting the globe F, on the disk E, in combination with the weight G, and pin H, substantially as and for the purpose specified.

Toronto, April 8, 1892.

ELI DENNE.

In presence of—
A. M. NEFF,
DONALD C. RIDOUT.