

(No Model.)

H. RUPPEL.
VAPOR BURNER STOVE.

No. 415,568.

Patented Nov. 19, 1889.

Fig. 1.

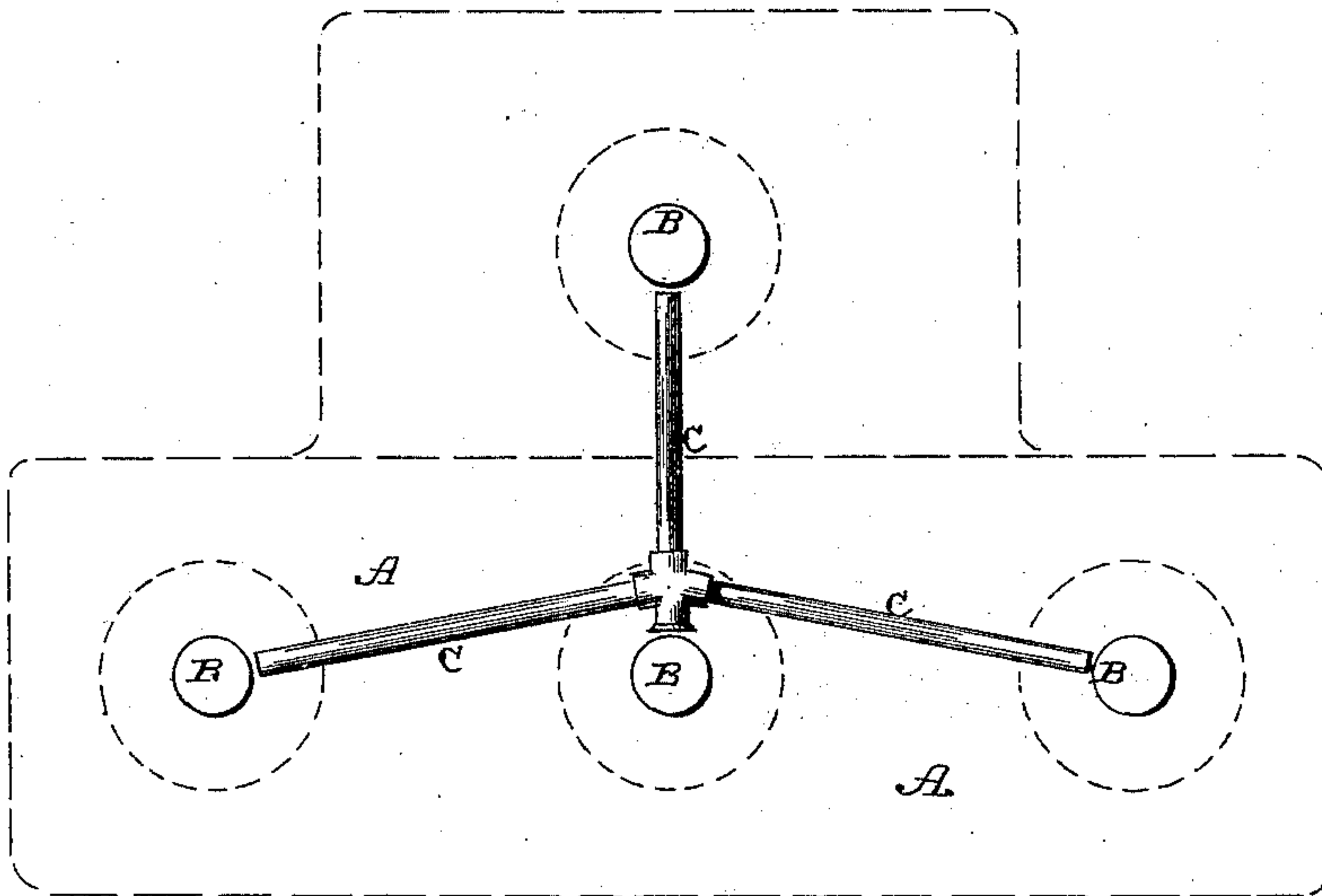


Fig. 2.

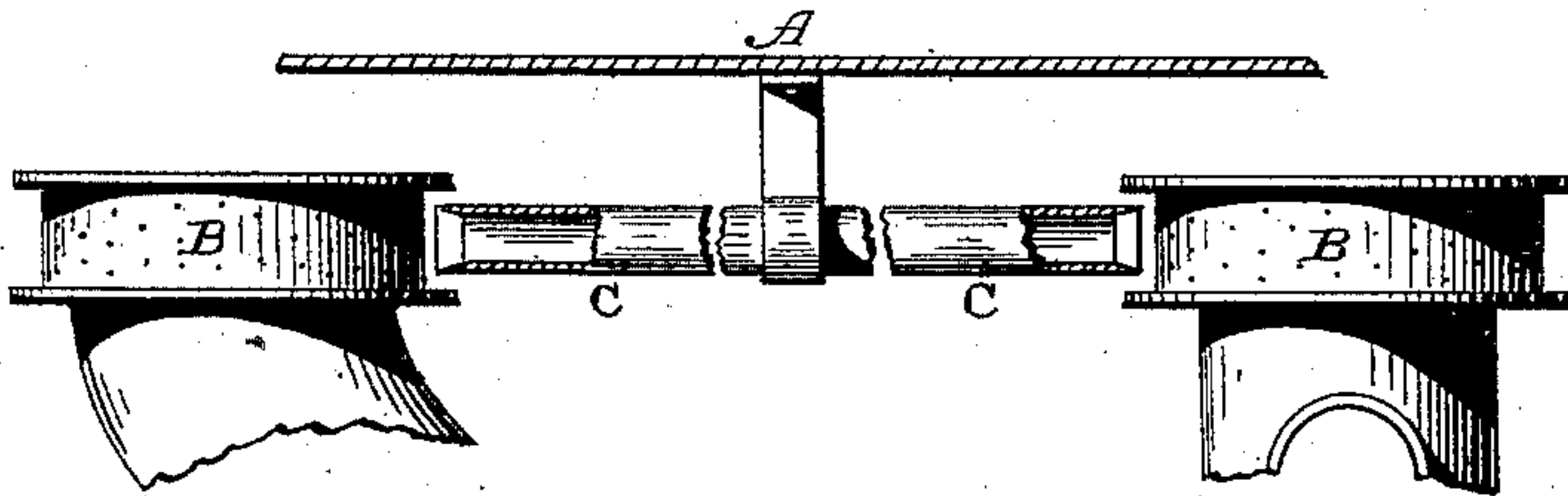
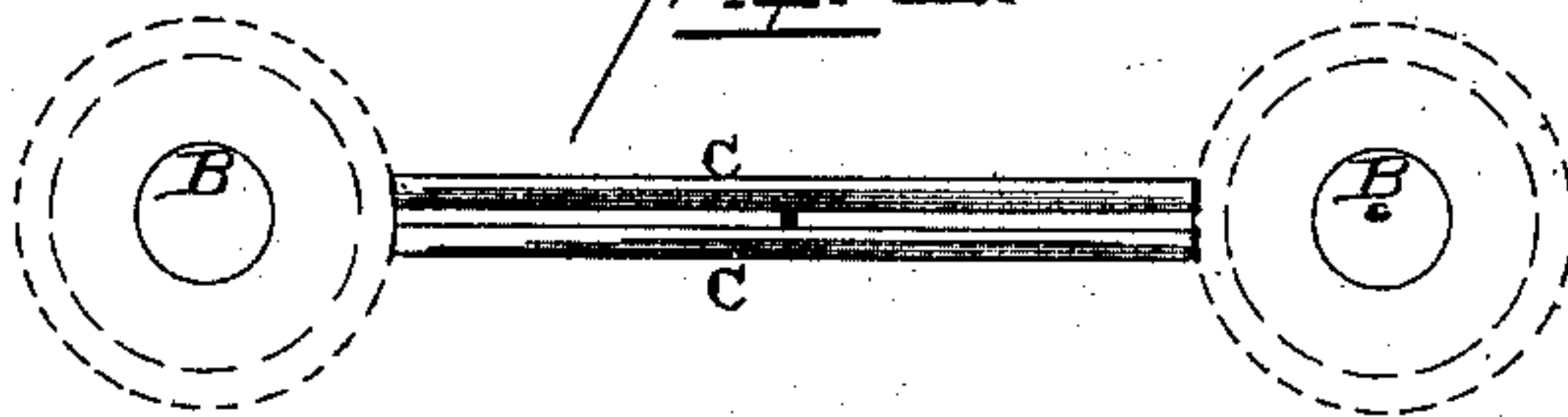


Fig. 3.



—WITNESSES.—

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att'y.

UNITED STATES PATENT OFFICE.

HENRY RUPPEL, OF CLEVELAND, OHIO, ASSIGNOR TO ZEBULON DAVIS, OF
SAME PLACE.

VAPOR-BURNER STOVE.

SPECIFICATION forming part of Letters Patent No. 415,568, dated November 19, 1889.

Application filed November 20, 1885. Serial No. 183,438. (No model.)

To all whom it may concern:

Be it known that I, HENRY RUPPEL, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Vapor-Burner Stoves; 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in vapor-burners; and it consists in an automatic lighting-tube connecting two burners of the stove.

The object of my invention is to automatically relight one of two or more burners when it has become accidentally extinguished, and to automatically light the end and side burners from the generating-burner, and thus prevent the necessity of having to light each burner separately.

Figure 1 is a plan view of a vapor-burner embodying my invention. Fig. 2 is an enlarged side elevation showing the lighting-tube applied between only two of the burners. Fig. 3 shows a modification.

A represents the frame of a vapor-burner stove, and B the vapor-burners, connected thereto in any suitable manner. There may be two, three, or more of these burners, and they may be of any construction desired. Extending between each pair of burners or between all of the burners, as shown in Fig. 1, is an automatically-acting lighting-tube C, which is open at its ends, so as to communicate with the outside air, and each end is made to extend to or sufficiently near to one of the burners to catch a portion of the vapor which is escaping therefrom. The ends of each tube are adjusted in such relation to the burners that a portion of the gas in escaping from the burner is projected or flows into the end of the pipe, and the pipe then acts as a conductor to convey or carry this vapor toward a lighted burner, where the vapor in the pipe becomes ignited, and the flame then flows back through the pipe toward the unlighted burner and ignites the gas escaping therefrom.

Any construction or arrangement of the burners and tubes desired may be made, for all that is necessary is that the ends of the tubes shall communicate with the outside air and be placed in such relation to the burners that the escaping vapor from a burner shall flow or be projected through the tubes toward the other burner or burners, and convey flame from a lighted to an unlighted burner.

As shown in Fig. 1, one tube may be made to connect all of the burners, in which case it will have as many ends or openings as there are burners in addition to the generating or lighting burner, and when the gas escapes from the central burner a portion of it flows into and through the lighting-tube to the other burners. When the central burner is lighted from the lighting-cup and the other burners are in vapor, the vapor from these unlighted burners passes through the tubes C toward the central burner, and this vapor in the tubes becoming lighted the flame passes back through each tube and lights the unlighted burner at its other end.

Should any one of the burners at any time become accidentally extinguished, it will almost instantly be lighted again from any one of the lighted burners with which its lighting-tube connects. Where no lighting-tube is used and one of the burners becomes accidentally extinguished and it is not noticed by the operator, the vapor continues to escape into the room, and an explosion or fire is almost sure to ensue. Where a lighting-tube is employed, as here shown, accidents from this source are impossible.

If desired, and to make the operation of lighting automatically more positive, two or even more tubes instead of a single one may be used, as shown in Fig. 3.

Having thus described my invention, I claim—

1. The combination of two burners with a lighting-tube placed between them, so as to conduct gas or vapor and flame back and forth between the burners, the ends of the tube being open to the atmosphere, substantially as shown.

2. In a vapor-burner stove, the combination of two burners with a lighting-tube having

its ends open to the air and arranged between the burners so as to have its ends approach near enough to the sides of the burners to catch the escaping gas or vapor, substantially as described.

3. The combination, with two vapor-burners provided with openings for the escape of the vapor, of a conduit or tube between the burners, having its ends over one or more of

such openings and communicating with the outer air at such ends, as specified.

In testimony whereof I affix my signature in presence of two witnesses.

HENRY RUPPEL.

Witnesses:

RICHARD M. PARMELY,
ZEBULON DAVIS.