No. 716,964. Patented Dec. 30, 1902.

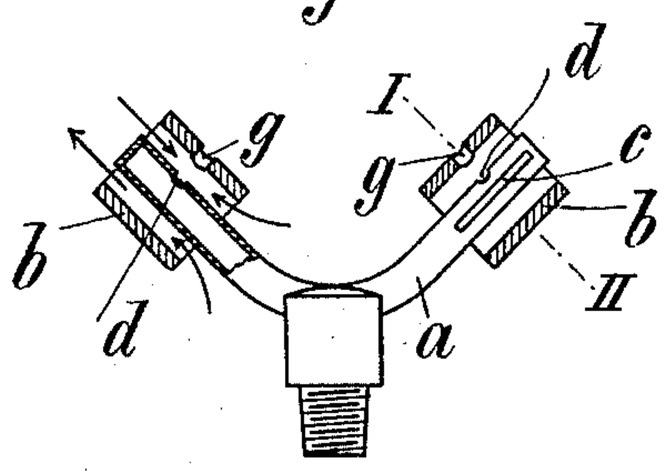
S. TRAUBEL.

GAS BURNER.

(Application filed May 14, 1902.)

(No Model.)

Fig. 1.



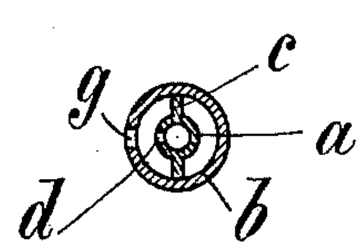


Fig. 2.

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UNITED STATES PATENT OFFICE.

SALOMON TRAUBEL, OF HAMBURG, GERMANY, ASSIGNOR TO HANSEATISCHE ACETYLEN-GASINDUSTRIE AKTIENGESELLSCHAFT, OF HAMBURG, GERMANY, A FIRM.

GAS-BURNER.

SPECIFICATION forming part of Letters Patent No. 716,964, dated December 30, 1902.

Application filed May 14, 1902. Serial No. 107,308. (No model.)

To all whom it may concern:

Be it known that I, SALOMON TRAUBEL, a subject of the German Emperor, and a resident of Hamburg, in the German Empire, have invented certain new and useful Improvements in Gas-Burners, of which the following is a specification.

This invention relates to gas-burners of the class which are employed in pairs in the manner of acetylene-gas burners in order to produce a single flame. Such burners are adapted for burning a mixture of gas and air in the same way as Bunsen burners by covering the lateral outlet-opening of the gas-tube, which is closed at the end, with a tubular passage open at both ends and providing this latter above the said lateral outlet-opening in the gas-tube with an opening for the outlet of the mixture of gas and air formed in this passage, this latter opening forming the gas jet or burner proper. The present improvements more particularly refer to an arrangement of such burners by means of which cooling of the same is produced, thereby preventing rapid consumption and decomposition of the gas.

In the accompanying sheet of drawings, Figure 1 is a vertical longitudinal section of my improved acetylene double or twin burner; and Fig. 2, a cross-sectional view on the line I II, Fig. 1.

Similar letters refer to similar parts throughout both views.

According to my invention the ends *a* of the gas-supply pipe are surrounded each by a concentric sleeve *b*, the interior of which is divided into two parts by partitions *c*. One of the chambers thus formed—viz., that lying between the gas-outlet aperture *d* and the burner nozzle or jet *g*—is the mixing-chamber for gas and air, while in the other chamber the heat from the gas-flame produces a vigorous current of air, whereby cooling of the burner is effected.

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

1. A burner comprising a body portion having diverging branch tubes closed at their outer ends, each of said tubes provided with a lateral jet-orifice near its closed end, separate open-ended air-ducts extending partly along and partly around the said outer end of each tube, one of said ducts provided with an orifice in line with the tube-orifice, for the purpose set forth.

2. A gas-burner comprising a burner-tube closed at its outer end and provided with a lateral jet-orifice, an open-ended air-duct on the jet side of the tube provided with an orifice in line with the burner-tube orifice and extending partly around and along said tube, and a similar but separate air-duct on the opposite side of the burner-tube, for the purpose set forth.

3. A gas-burner comprising a burner-tube closed at its outer end and provided with a lateral jet-orifice, and an open-ended shorter tube concentric with and of greater diameter than the burner-tube divided longitudinally by webs and having a jet-orifice in line with the burner-tube orifice, for the purpose set forth.

4. A gas-burner comprising a burner-tube, closed at its outer end and provided with a lateral jet-orifice, an open-ended shorter tube, concentric with and of greater diameter than the burner-tube, provided with a jet-orifice intermediate its ends and in line with said burner-orifice, and webs dividing the outer tube longitudinally into two substantially semicircular tubes, for the purposes set forth.

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