No. 870,980. PATENTED NOV. 12, 1907.

A. D. MARCOTTE.

CRUDE OIL BURNER.

APPLICATION FILED NOV. 23, 1906.

Fig. 1

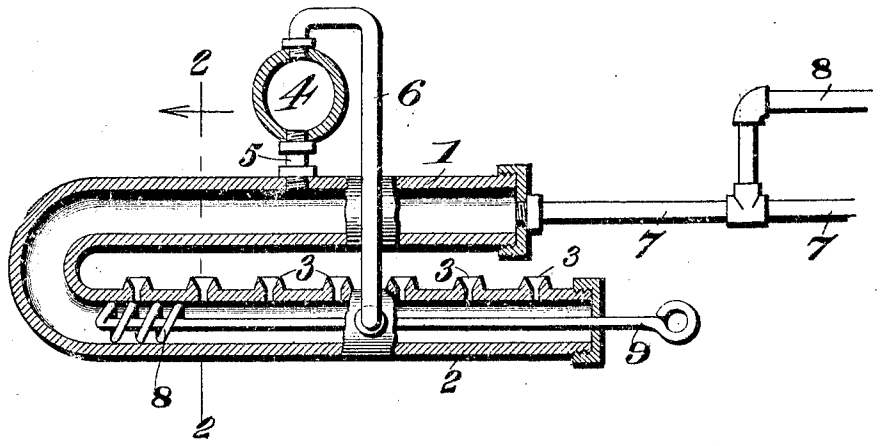
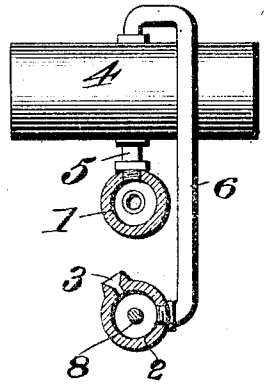


Fig. 2



WITNESSES

INVENTOR

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CRUDE-OIL BURNER.

No. 870,980. Specification of Letters Patent. Patented Nov. 12, 1907.

Application filed November 23, 1906. Serial No. 344,713.

To all whom it may concern:

Be it known that I, ARTHUR D. MARCOTTE, a citizen of the United States, residing at Church Point, in the parish of Acadia and State of Louisiana, have invented a new and useful Improvement in Crude-Oil Burners, of which the following is a specification.

My invention is an improved form of vapor generator and burner particularly adapted for the consumption of crude or heavy oil. The construction of the burner is as hereinafter described, and illustrated in the accompanying drawings, in which

Figure 1 is in part a side view, and in part a vertical section, of my improved burner. Fig. 2 is a vertical cross section on the line 2—2 of Fig. 1.

The body of the burner and generator is formed of a tube bent into U-shape, and arranged horizontally with one leg, or part, of the tube vertically over the other. The upper leg or tube is indicated by the numeral 1 and the lower one by the numeral 2. The latter has a series of nipples or orifices 3 arranged on the upper side, but preferably not directly below the leg or tube 1. Above the U-shape generator and burner is arranged a tube 4 which is connected with the upper leg 1 of the U-shape burner by means of a small tube 5. It is also connected with the lower leg, or tube, 2, by a long pipe 6 which is connected with the upper side of the chamber 4.

7 indicates an oil pipe which is connected with a suitable source of supply (not shown) and attached to the end of the upper leg or tube of one of the generators. 8 indicates an air-pipe connected with an air-pump, or compressed-air tank (not shown).

In operation, air under pressure is forced through the pipe 8 and induces a current of oil in the pipe 7 which is thereby carried into the upper leg, or tube 1 of the burner. A small fire of shavings or wood kindlings being made in the fire box of a furnace, under the burner and generator 1—2, whereby the same is heated to a degree which vaporizes the main portion of the oil, the vapor passes through the short pipe 5 into the chamber 4 in which a thorough admixture of the various gaseous elements occurs; the same then passes down through the pipe 6 into the lower port or nipple member 2 of the burner from whose nipples 3 it escapes, and, being ignited, burns freely. Any oil in excess of the portion thus vaporized, passes around the bend of the U-shape burner into the lower or nipple tube and is vaporized therein, and escapes through the nipples 3 to support combustion, as before stated. Thus in my improved burner the oil is vaporized, the vapor through the medium of the mixing chamber becoming a homogeneous gas, and is then conveyed to the lower portion of the burner whence it escapes and is burned in the required manner.

A flue cleaner, consisting of a wire coil 8 having a handle 9, is applied to the nipple member 2 of the burner, and is adapted to slide therein, in a well known manner.

What I claim is.

The improved burner comprising a U-shape tube arranged horizontally with one leg over the other, the lower leg being provided with gas nipples and with a sliding cleaner, a second tube 4 arranged over the U-shape one and a small tube 6 connecting said second tube with the lower branch of the U-shape tube, as shown and described.

ARTHUR D. MARCOTTE.

Witnesses:
H. A. DOMINIQUE,
H. C. DEVILLIERS.