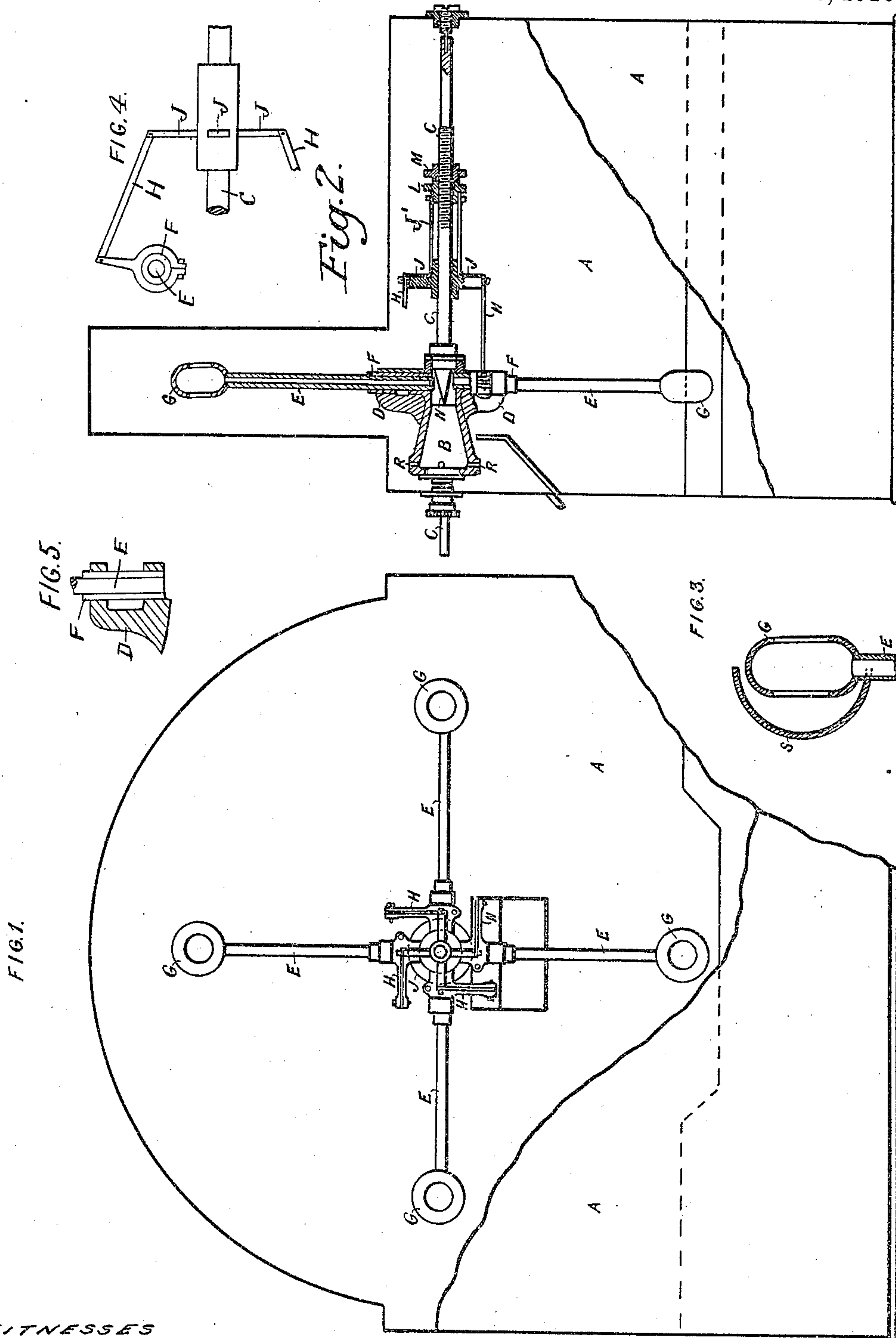


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 APPARATUS FOR MAKING PETROLIZED OR AIR GAS.
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WITNESSES
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APPARATUS FOR MAKING PETROLIZED OR AIR GAS.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, WILLIAM SHEARER, a subject of the King of Great Britain and Ireland, residing at Ferniecot, 3 Abbey road, Eskbank, county of Mid-Lothian, Scotland, have invented new and useful Improvements in or Relating to Apparatus for Making Petrolized or Air Gas, of which the following is a specification.

My said invention relates to apparatus for making petrolized or air gas, and has for its object to provide improved and simple means for regulating, conveying and distributing the hydrocarbon to the carbureter. Further to insure that, between the maximum and minimum level of the hydrocarbon in the tank, a predetermined and unvarying quantity of hydrocarbon will be delivered to the carbureter.

In carrying out my invention the hydrocarbon is, as usual, contained in a tank of any suitable form and size. Within the tank there is arranged a conical boss fitted to and rotating with a horizontal spindle which passes through the tank, said spindle being driven from any suitable source. A number of brackets are formed on, or fixed to, the boss for the purpose of supporting an equal number of tubes which radiate from the boss. The inner ends of these tubes communicate with the interior of the boss, while the outer end of each tube has fitted to it a ring-like cup or receptacle, and these cups, which form a special feature of my invention, are constructed so that exactly the same quantity of hydrocarbon is taken up by each cup and that irrespective of the level of the liquid in the tank. As each cup, in course of rotation, rises, the liquid is discharged into the supporting tube of the cup, and flows down that tube to the interior of the boss on to a cone-shaped guide which directs the hydrocarbon to a number of openings in the periphery of the boss, and through which openings the hydrocarbon flows to the carbureter. Means are also provided for adjusting the position of the cups or receptacles, so that the quantity of hydrocarbon taken up may be varied.

In order that my said invention may be properly understood I hereunto append a sheet of explanatory drawings to be hereinafter referred to in describing my invention.

Figure 1, is an end elevation with the nuts L, M omitted, and Fig. 2, a sectional side elevation of my improved apparatus. Fig.

3, is an enlarged view of one of the cups or receptacles. Fig. 4 is a partial plan view showing the means for adjusting the tubes E. Fig. 5 is a detailed view showing the means for supporting the tubes E.

In the drawings the same reference letters are used to mark the same or like parts wherever they are repeated.

As shown in the drawings the tank A, has arranged within it a conical boss B, fitted to and rotating with the horizontal spindle C, which passes through the tank, said spindle being driven from any suitable source. A number of brackets, or supports D, are formed on, or fixed to, the boss B, for the purpose of supporting a number of tubes E, which radiate from and communicate with the interior of the boss. These tubes E, are, preferably, inserted and frictionally held in short tubes F, which extend slightly within the boss B. To the outer end of each tube E, there is fitted a ring-like cup or receptacle G, formed so that exactly the same quantity of hydrocarbon is taken up by each cup, and that irrespective of the level of the hydrocarbon in the tank, A. The cup is formed of channel material and has a central opening. It is to be understood, however, that the level of the hydrocarbon must be such that it will flow into the cups G, when in their lowest position. To insure filling of the cups G, when the hydrocarbon is at a minimum level in the tank A, the bottom of the tank is, preferably, dished or concavely shaped.

In some cases it may be advantageous to vary the quantity of hydrocarbon taken by each cup G.

Each tube E, is by means of a link H, connected to a collar J, which is capable of sliding on the spindle C, the collar J, being connected by links J' to a nut L, working on a screwed part of the spindle C. A locking ring M, or the like, may be employed to retain the nut L, in position after the cups G, have been adjusted. By this means the tubes E, can be slightly turned and also their respective cups G, so that the latter enter and leave the tank at a slight inclination, thus reducing the quantity of hydrocarbon taken up by each cup.

As shown in Fig. 3, a shield S, may be fitted to each cup or receptacle G, to prevent the petrol being blown out.

In operation the action of my improved apparatus is as follows:—The cups, or re-

ceptacles G, with their tubes E, and conical boss B, are rotated by the spindle C. As the cups G, in the course of rotation, are immersed in the hydrocarbon a certain quantity, which is the same for each cup, is raised, any excess simply overflowing back into the tank. There is no variation in the quantity taken up, by each cup, between the maximum and minimum level of the hydrocarbon in the tank. Each cup G, in traveling upward gradually discharges its contents into its tube E, the hydrocarbon flowing down said tube to the interior of the boss B, where it falls upon a cone-shaped guide N, which directs it to a number of openings R, formed in the periphery of the boss B, through which openings the hydrocarbon flows to the carbureter or carbureters.

What I claim is:—

1. An apparatus for making air gas comprising a tank, a rotating spindle therein having an enlarged hollow boss, tubes extending radially from the boss and communicating therewith, cups carried at the ends of the tubes and means connected with the tubes for adjusting said cups.

2. An apparatus for making air gas comprising a spindle having a conical hollow boss, a tank in which the spindle is located,

radial tubes, rings on the outer ends of the tubes, and means for turning the tubes to adjust the cups.

3. An apparatus for making air gas comprising a tank, a spindle therein, radial tubes carried by said spindle and communicating with the interior thereof, cups carried at the ends of said tubes and means for adjusting said tubes, consisting of links, a collar connected with the tubes by said links and means for actuating the collar.

4. In an apparatus for making gas, a raising device comprising a cup of annular ring form having a central recess, and a tube communicating with said cup.

5. An apparatus for making gas comprising a tank, a rotating spindle therein having an enlarged hollow conical boss, tubes extending radially from the boss and communicating therewith, cups carried at the ends of the tubes and said conical boss having outlets therein.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM SHEARER.

Witnesses:

GEORGE PATTERSON,
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