Oct. 24, 1939. I. P. WALKER 2,177,339

VAPORIZER

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Fig. 1.

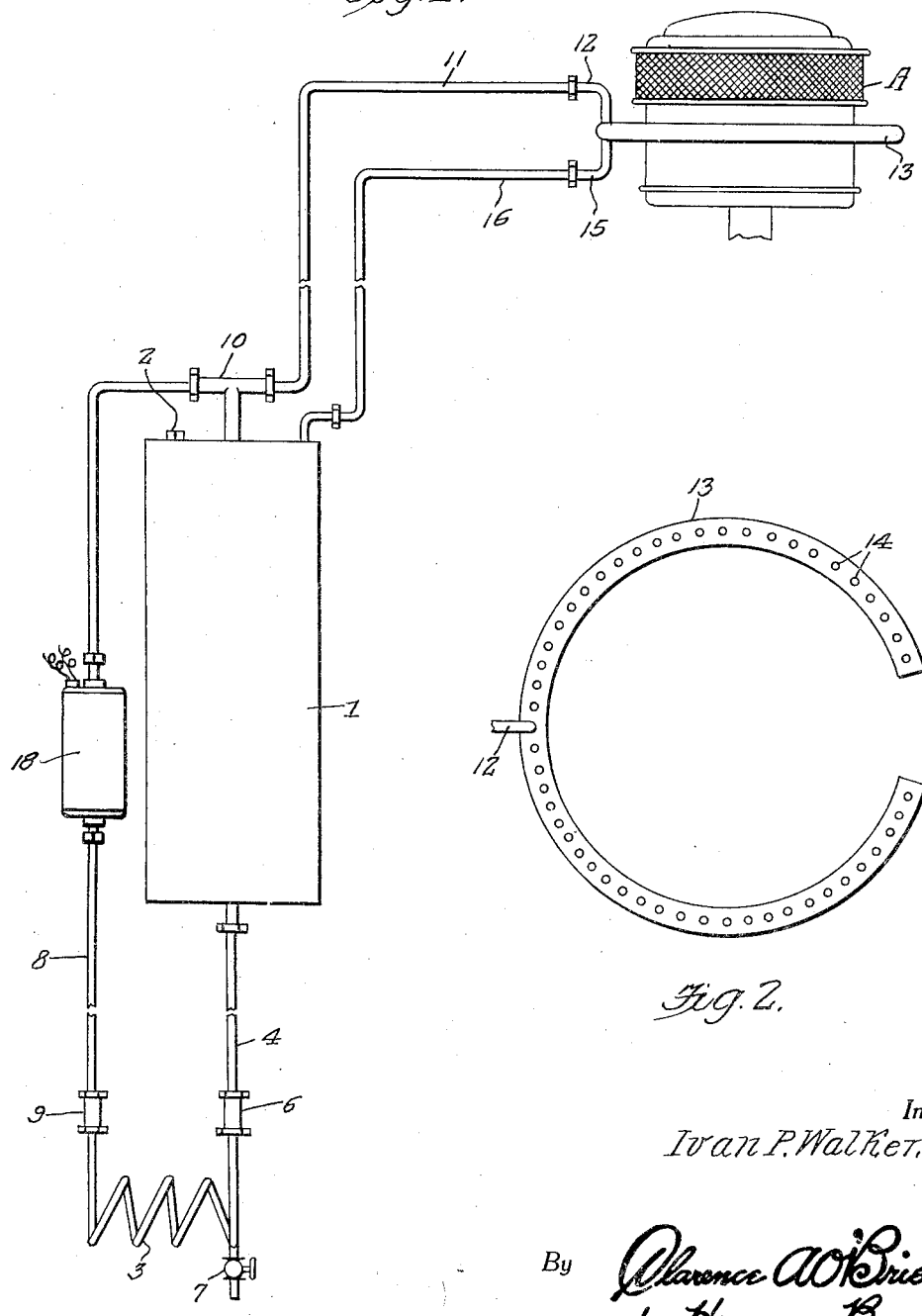


Fig. 2.

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VAPORIZER

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1 Claim. (Cl. 219—38)

This invention relates to a vaporizer for supplying vapor to carbureters or wherever vapor is required or found desirable, the general object of the invention being to provide a tank, a coil, means for leading the liquid from the tank to the coil, means for heating the coil, and means for conveying the vapor produced by the heating of the coil to the point of use.

This invention also consists in certain other features of construction and in the combination and arrangement of the several parts to be hereinafter fully described, illustrated in the accompanying drawing and specifically pointed out in the appended claim.

In describing the invention in detail, reference will be had to the accompanying drawing wherein like characters denote like or corresponding parts throughout the several views, and in which:

Figure 1 is a diagrammatic view showing the invention in use.

Figure 2 is a top plan view of the perforated member through the perforations of which the vapor escapes.

In this drawing the numeral 1 indicates a tank which can be filled with water or the like through an opening closed by a plug 2 and the numeral 3 indicates a coil which is heated in any suitable manner, such as by the exhaust manifold or pipe of a motor of an automobile, though if desired electricity may be used for heating the coil. A pipe line 4 containing a coupling 6 leads from the bottom of the tank to one end of the coil and at the lowest point of this connection from the tank to the coil is a drain valve 7. A pipe line 8 containing a coupling 9 leads from the coil to a T coupling 10, the stem of which is in communication with the top of the tank and a line 11 leads from the coupling to an elbow 12 which is connected with the perforated member 13, the perforations of which are shown at 14. This member 13 can be of any suitable shape though it is shown in Figure 2 as of split ring form. A drain elbow 15 has one limb depending from the member 13 and its other limb is connected to a pipe 16 which returns the water to the top of the tank 1. However, if the member 13 is placed below the tank 1 or the top thereof, the drain pipe 16 can lead to any point of discharge but, of course, in this case the water will go to waste. The member 13 is placed around a part of a carbureter A so that the vapor escaping from the perforations 14 will mix with the air entering the carbureter or with the explosive mixture passing from the carbureter so that the same will be moistened to add to the efficiency of the motor. Of course, this member 13 can be placed in any apparatus where vapor is desirable or necessary.

I may also place an electric heater 18 around a part of the pipe 8 for heating the water passing through said pipe, this heater being especially desirable where the coil 3 is heated by an exhaust pipe or the like. In this case the electric heater 18 can be used for heating the water initially to provide the vapor and then when the motor has been running a sufficient length of time to cause the exhaust gases therefrom to heat the coils 3, the heater 18 can be turned off.

It is thought from the foregoing description that the advantages and novel features of the invention will be readily apparent.

It is to be understood that changes may be made in the construction and in the combination and arrangement of the several parts provided that such changes fall within the scope of the appended claim.

Having described the invention, what is claimed as new is:

A vaporizer of the class described comprising a tank containng liquid, a heating coil located below the bottom plane of the tank, a conduit connecting the bottom of the tank with one end of the coil, a T-coupling connected with the top of the tank and in communication with the tank, a conduit connecting one branch of the coupling with the opposite end of the coil, a perforated member, a conduit connecting another branch of the T-coupling to the perforated member, an electric heater through which the conduit leading from the coil to the T-coupling passes and a depending drain cock at the junction of the first-mentioned conduit with the coil.

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