

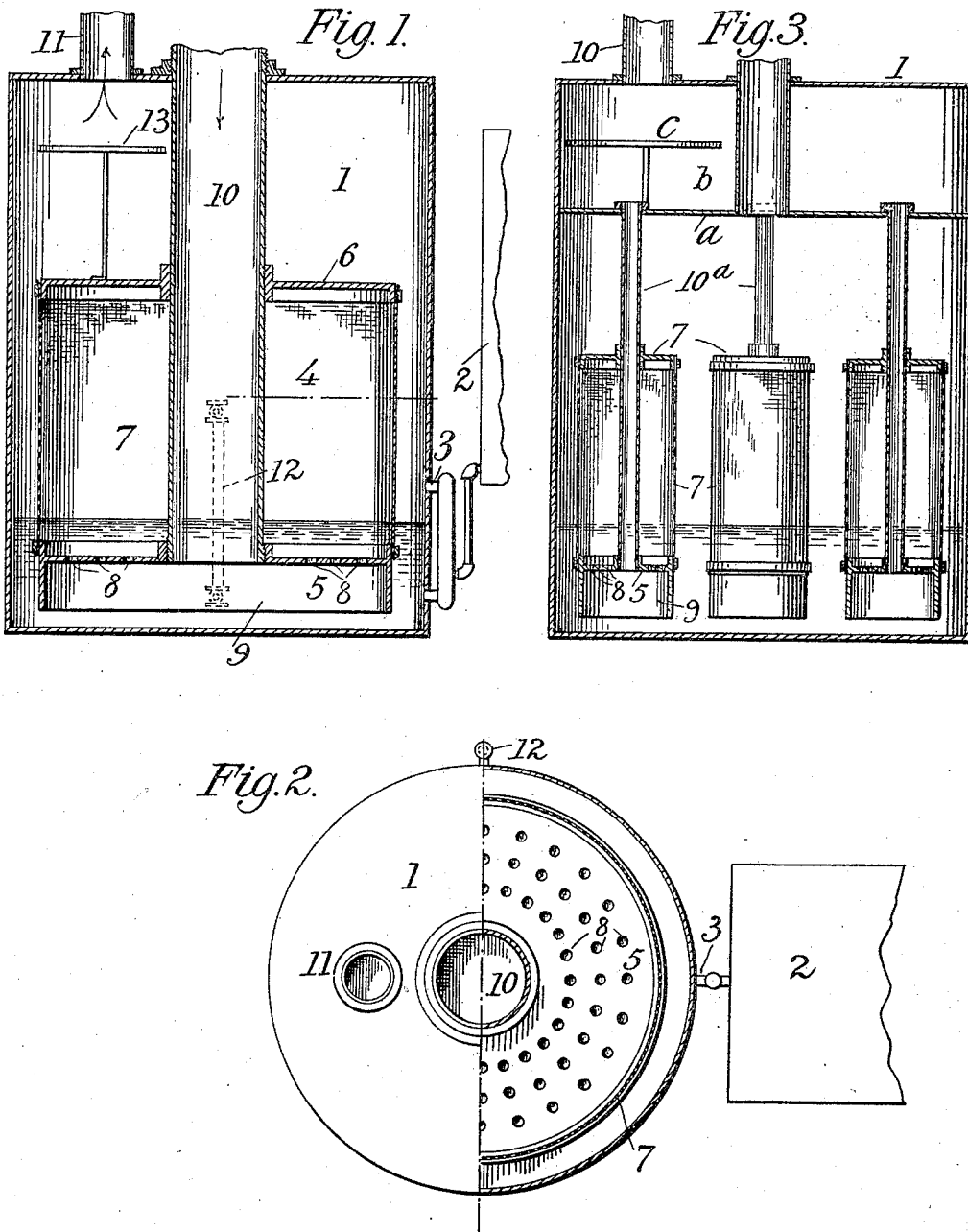
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O. ANDRESON.
CARBURETER.

(Application filed Apr. 1, 1901.)

(No Model.)



Witnesses:
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UNITED STATES PATENT OFFICE.

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CARBURETER.

SPECIFICATION forming part of Letters Patent No. 688,814, dated December 17, 1901.

Application filed April 1, 1901. Serial No. 53,853. (No model.)

To all whom it may concern:

Be it known that I, OLIF ANDRESON, a citizen of the United States, residing at Elgin, in the county of Kane and State of Illinois, have
5 invented a new and useful Apparatus for Carbureting Air, of which the following is a specification.

My invention is an improved apparatus for carbureting air by mixing the same with the
10 vapor of gasoline or other liquid hydrocarbon; and it consists in the peculiar construction and combination of devices hereinafter fully set forth and claimed.

In the accompanying drawings, Figure 1 is
15 a vertical central sectional view of a carbureting apparatus constructed in accordance with my invention. Fig. 2 is partly a top plan view of the same and partly a section taken on a plane indicated by the line *aa* of
20 Fig. 1. Fig. 3 is a vertical central sectional view of a modified form of my invention.

The tank or chamber 1 is kept supplied with a suitable quantity of gasoline or other liquid hydrocarbon. As here shown, the
25 gasoline is fed to the tank 1 from a reservoir 2 by a tube 3, which communicates with tank 1 near the lower side thereof.

Within the chamber 1 is a carbureting-chamber 4. The same comprises a lower
30 head 5, an upper head 6, and a web 7, which connects said upper and lower heads. The lower head is perforated, as at 8, and is provided with a depending flange 9. The web 7 is made of cloth or other suitable absorbent
35 material through which air can pass. The lower head 5 is entirely submerged in the gasoline in the tank 1 and the lower portion of the absorbent web 7 is also submerged therein. An air-inlet pipe 10 passes down-
40 ward through an opening in the top of the tank 1 and through central openings in the lower and upper heads. The latter are secured to and supported by the said inlet-pipe 10. The lower submerged end of the latter
45 is open, as shown. An outlet-pipe 11 leads from the top of the tank 1.

In the operation of my improved apparatus the air passes downward through the pipe 10 and is forced through the body of gasoline in
50 the lower portion of tank 1. The air is confined under the head 5 by the flange 9 thereof

and rises through the body of gasoline, passing through the openings 8 in said lower head into the carbureting-chamber 4 and passes
through the absorbent web 7 of the latter. 55 This absorbent web being kept saturated with the liquid hydrocarbon by capillary action, the air is the more effectually carbureted as it passes through the said web. The carbureted air or gas passes from the tank 1 through
60 the pipe 11. The tank 1 is provided with a suitable gage, as at 12, by means of which the quantity of gasoline therein may be readily ascertained. I employ a spreader 13,
65 which is here shown as a circular disk disposed at a suitable distance below the intake end of the pipe 11. The spreader forms a baffle between the said pipe and the nearest
portion of the carbureting-chamber and serves to thoroughly commingle the vapors as
70 the same rise from the carbureting-chamber.

In the modified form of my invention (shown in Fig. 3) I employ a plurality of the carbureting-chambers 7. The same are suspended
75 from a diaphragm *a* in the tank 1 by the pipes 10^a. The said pipes communicate with the air-space *b* between said diaphragm and the top of the tank. The air-inlet pipe 10 communicates with the air-space *b*. The air
80 passes downward from the space *b* through the pipes 10^a into the body of gasoline, rises through the latter and the openings 8 in the lower head 5, becoming thereby carbureted, and passes through the absorbent webs of the carbureting-chamber 7, as before. In
85 this form of my invention a spreader *c* is interposed between the air-inlet pipe 10 and the proximate pipes 10^a, hence causing an equal volume of air to pass downward through
90 each of the pipes 10^a and distributing the work equally to each of the carbureting-chambers.

It will be observed by reference to the drawings that the tank or reservoir 2 is at
95 such an elevation that the gasoline is maintained at all times at the required level in the tank 1 and that the gasoline is fed to the said tank as the same is consumed therein.

Having thus described my invention, I
claim—

1. In a carbureter, the combination of an
inclosing tank, a carbureting-chamber there-

in, the latter comprising an upper head, a lower head and an absorbent web connecting said heads, and forming the inclosing wall of said carbureting-chamber, the lower portion of said carbureting-chamber being submerged in liquid hydrocarbon, an air-inlet pipe discharging under said lower head and a gas-pipe leading from the gas-space of said tank, substantially as described.

2. In a carbureter, a carbureting-chamber comprising an imperforate upper head, a perforated lower head having a depending flange, an absorbent web connecting said upper and lower heads, and forming the inclosing wall of said carbureting-chamber, and means to force air through a body of liquid hydrocarbon into said chamber and from the interior of the latter outward through the absorbent web forming the inclosing wall thereof, substantially as described.

3. In a carbureter, the combination of a vertical tube, an upper, imperforate head secured thereon, a lower perforated head secured on said tube and having a depending flange forming a chamber below said head, and an absorbent web connecting said heads, said heads, tube and web forming a carbureting-chamber, with an inclosing tank adapted to contain liquid hydrocarbon, the said lower head and the lower portion of said absorbent web being submerged in said liquid hydrocarbon, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

OLIF ANDRESON.

Witnesses:

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