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F. J. LOTHAMMER.
CARBURETER.

APPLICATION FILED JULY 16, 1901. RENEWED JULY 14, 1904.

NO MODEL.

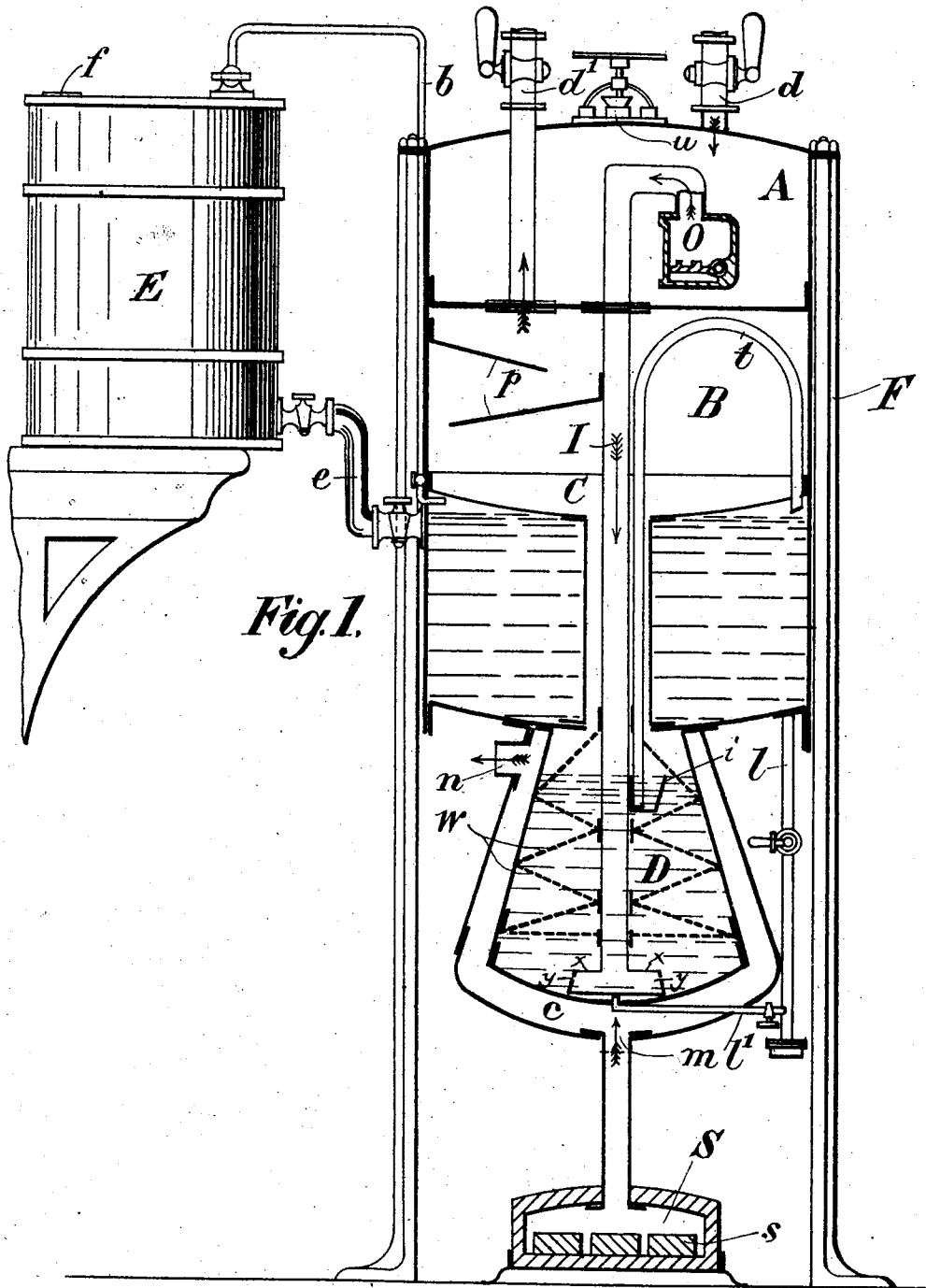


Fig. 1.

Witnesses:
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UNITED STATES PATENT OFFICE.

FRANÇOIS JOSUÉ LOTHAMMER, OF PARIS, FRANCE.

CARBURETER.

SPECIFICATION forming part of Letters Patent No. 777,908, dated December 20, 1904.

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To all whom it may concern:

Be it known that I, FRANÇOIS JOSUÉ LOTHAMMER, a citizen of the French Republic, residing at 9 Rue Chateaudun, in the city of Paris, France, have invented a new and useful Carbureter, of which the following is a specification.

My invention relates to improvements in apparatus for carbureting air by means of suitable hydrocarbons in such a manner as to form a homogeneous combustible gas.

In the apparatus shown in sectional elevation in the accompanying drawing and carried by the frame F, A is the compressed-air chamber, B is the carbureted-air chamber, and C is the hydrocarbon-receptacle. The air-chamber A is provided with a safety-valve *u* and a valve-chest *o*, containing a clack-valve leading to the central air-supply pipe I, and with an air-pipe *d* for the air which is compressed into A by any suitable means or mechanism. The chamber B is provided with an outlet-pipe *d'* for the carbureted air and with baffle-plates *p*, designed to stop any liquid particles which may have been carried away with the carbureted air. The hydrocarbon-receptacle C is furnished with hydrocarbon from the outside tank E, through the connecting-pipe *e*, *b* being an exhaust-air pipe acting as a vent. *f* is an inlet-stopper. The apparatus is terminated by a conical vessel or carbureter D, provided with wire-gauze pieces *w*, arranged after the manner of lazy-tongs and fitted in an upright direction to and around the central compressed-air-supply pipe I. The latter is provided at its lower end with a number of radial arms *x*, the lateral ends of which are likewise furnished with wire-gauze *y*.

The hydrocarbon is supplied to the carbureter through the pipes *l* *l'*, leading to the hydrocarbon-receiver from chamber C. *t* is a bent pipe having for its object to keep together with the pipe *b* a constant level of liquid in the chamber C and in the carbureter D in the following manner: When the cock of pipe *l* is closed and the cocks of the pipe *e* of the storage-tank E are opened, hydrocarbon runs from the storage-tank E to C. As the latter gets filled air is forced through the pipe

t into the conical chamber D. A water-gage 50 fixed by the side of the reservoir or apparatus F indicates when C is full, whereupon the cocks of the pipe *e* are closed and that of the pipe *l* is opened, thus establishing a communication between C and D. The hydrocarbon 55 descending in the latter receptacle forms a vacuum in C to be filled by aspiration of air in tube *t* until the level of hydrocarbon has been raised high enough in D to close the orifice of tube *t* in chamber D. As C is above 60 D, such level will be maintained constant in D through the vacuum formed in C. The trough *z*, below the lower end of *t*, serves to prevent air-bubbles entering said lower end of *t*, as said bubbles would otherwise enter in C and 65 cause hydrocarbon to drop in D and equal the level in C. As the hydrocarbon in D gets consumed the level in D sinks and discloses the lower end of *t*, whereupon air or gas enters in C, allowing oil to drop in D, receptacle C being subsequently refilled from tank E 70 in the manner above set forth.

c is a hot-air jacket inclosing the carbureter D and provided with the inlet and outlet *m* and *n*, respectively. 75

Hot air is supplied to the chamber *c* by the stove S, heated by means of briquets *s*, and follows the direction indicated by the arrows. Atmospheric air being compressed into the chamber A, the same proceeds through the 80 valve O and the central supply-pipe I to the carbureter D, whence it is forced through the quadrangular meshes of the various wire-gauze pieces and the various layers of hydrocarbon of graduated specific gravity, the heaviest of which are met with at the bottom or 85 widest part of the carbureter in such a manner that the air becomes thoroughly impregnated with the hydrocarbon, the carbureted air thus formed ascending along the central 90 opening of the apparatus into the carbureted-air chamber, whence it is conveyed wherever needed through the supply-pipe *d'*.

What I claim as my invention, and desire to secure by Letters Patent, is—

In a device of the character described, a compressed-air chamber, a carbureted-air chamber, and a hydrocarbon-receptacle arranged

vertically in the order named, a carbureter
beneath the hydrocarbon-receptacle having
communication therewith through which hy-
drocarbon is maintained at a constant level in
5 the carbureter, a central air-supply pipe ex-
tending from the compressed air-chamber,
down through the carbureted-air chamber,
through a passage-way in the hydrocarbon-
receptacle and discharging into the carbureter,

and a heating-jacket surrounding the carbu- 10
reter.

In testimony whereof I have hereunto signed
my name in presence of two subscribing wit-
nesses.

FRANÇOIS JOSUÉ LOTHAMMER.

Witnesses:

EDWARD P. MACLEAN,
GUSTAVE ADOLPHE DE KATOW.