2 Sheets—Sheet 1.

J. J. PAQUETTE.

CARBURETER.

No. 187,667. Patented Feb. 20, 1877.

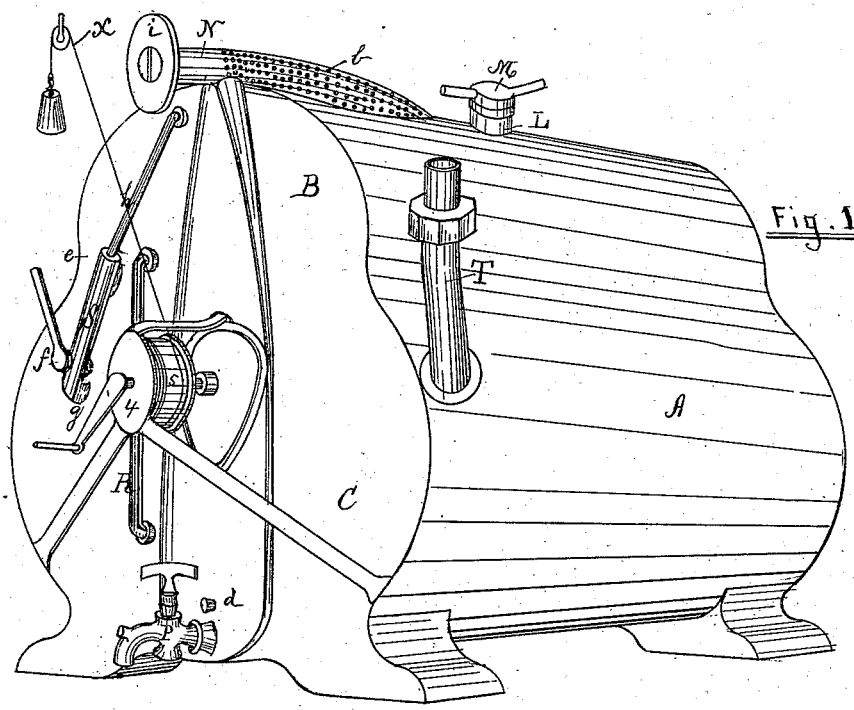

Fig. 1.

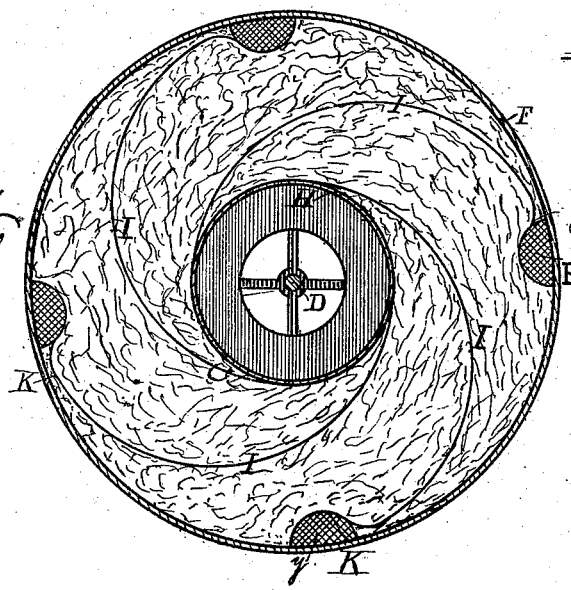

Fig. 3.

WITNESSES.

W. L. Murray

F. J. Roach

INVENTOR.

J. J. Paquette

By H. N. Jenkins

ATTORNEY.

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

2 Sheets—Sheet 2.

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Fig. 2.

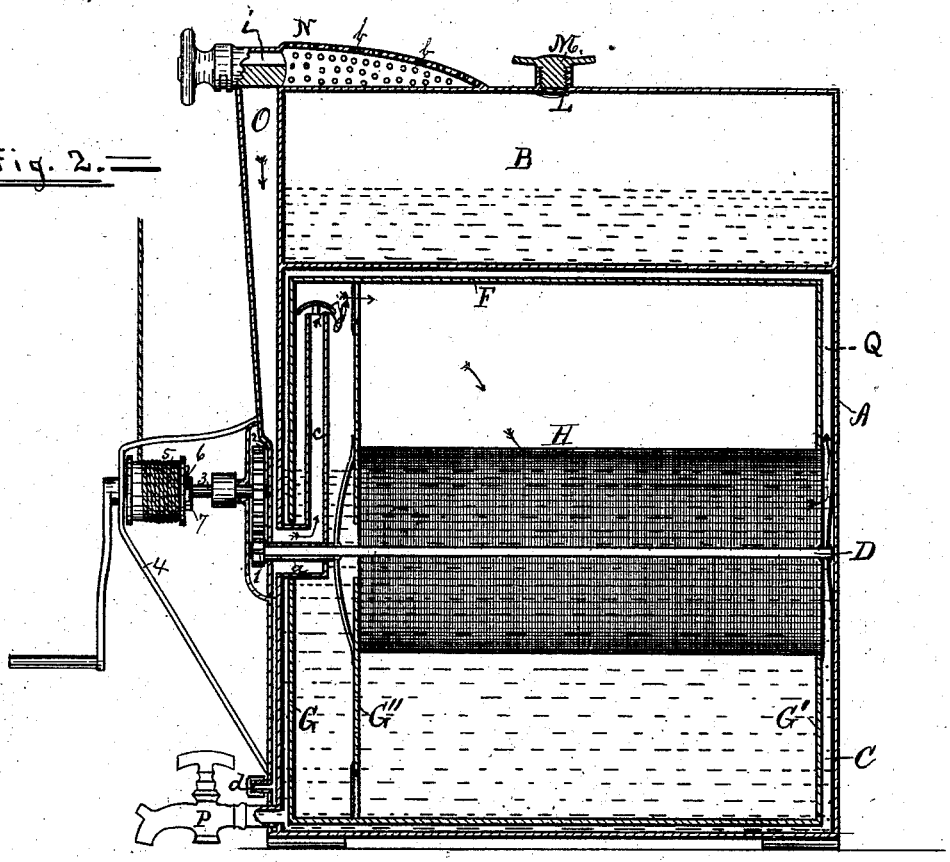
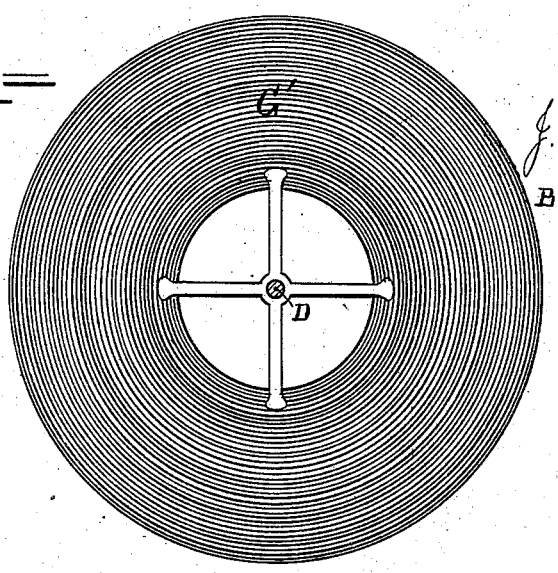


Fig. 4.



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UNITED STATES PATENT OFFICE

JOHN J. PAQUETTE, OF NEW ORLEANS, LOUISIANA.

IMPROVEMENT IN CARBURETERS.

Specification forming part of Letters Patent No. **187,667**, dated February 20, 1877; application filed December 27, 1876.

To all whom it may concern:

Be it known that I, JOHN J. PAQUETTE, of the city of New Orleans, State of Louisiana, have invented certain new and useful Improvements in Carbureters; and I hereby declare the same to be fully, clearly, and exactly described as follows, reference being had to the accompanying drawings, in which—

Figure 1 represents a perspective view of the apparatus; Fig. 2, a longitudinal vertical sectional view of the same; Fig. 3, a cross-sectional view of the inner cylinder, and Fig. 4 a rear view of the latter.

This invention relates to devices for carbureting air, or saturating it with hydrocarbons, such devices being commonly known as "carbureters;" and it consists in certain details of construction and combinations of parts, as hereinafter described and claimed.

In the accompanying drawings, A represents the outer case of the machine, which is divided into two compartments, B and C. The former contains the hydrocarbon to be used, which may be naphtha, benzine, or any of the lighter hydrocarbons, or mixtures containing them, such as petroleum or coal-oil. The lower compartment C incloses a revolving drum, F, mounted on a shaft, D, and furnished with suitable means for attaching the driving power, and the compartment is partially filled with hydrocarbon, as shown. The drum F consists of an outer case of imperforate material, and an inner wire-gauze cylinder, H. The space between the two is divided into a number of compartments by curved blades or plates I I, and is filled with a suitable absorbent material, such as moss, shavings, or asbestus. At one end of the drum the head is perforated, near the points at which the blades I are joined to the outer case, and the openings are covered with wire-gauze, to prevent the fibrous material from falling out, and still permit the free ingress of air and hydrocarbon.

The front end of the shaft D has its bearings in a stationary sleeve, *a*, and its projecting end is provided with a pinion, 1, which meshes with a cog-wheel, 2, that is secured to the inner end of the shaft 3. The latter is provided with a loose drum, 5, having a spring-pawl, 6, the free end of which engages with a ratchet, 7, rigidly attached to the shaft, so that the machine may be operated by the descent of a weight attached to a cord wound around the drum 5.

L is the opening through which the hydrocarbon is supplied, and it is fitted with a screw-plug, M, for closing it air-tight. N is the inlet-pipe, furnished with a stop-cock, *i*, to shut off the supply of air when the machine is not in operation. The air is admitted through the stop-cock and through the perforations *b*, and passes in the directions shown by the arrows, through the flue O and pipe C, whence it is discharged above the level of the hydrocarbon in the compartment C. It passes thence through the gauze-covered openings *y*, and through the saturated fibrous material and inner cylinder H, into the compartment Q, and through the pipe T to the burners. The tube *c* is provided with a cap, *j*, to prevent the entrance of the hydrocarbon.

The lower portions of the compartments B and C are connected by a feed-pipe, and also their upper portions by an air-pipe, for regulating the discharge of oil from the upper to the lower compartments. It is clear that such discharge will only take place when the level of the oil in the lower compartment falls sufficiently low to uncover the end of the air-pipe. These pipes are made of glass, in order to serve at the same time as gage-glasses, to indicate the level of the oil in the two compartments. These pipes are attached to the leaden connections as follows: The glass is heated to about 660° Fahrenheit, (near the melting-point of lead,) and the ends are inserted in proper molds. Molten lead is then poured around them, the glass and lead being allowed to cool together, whereby a tight joint is formed. T is the exit-pipe, from which the carbureted air is drawn off to the burners. The pipes S and O and the compartment C are furnished with suitable cocks, for the purpose, in the pipe S, of cutting off or regulating the supply of oil, and in the others for drawing off the oil.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with the case A, of the drum F, having the wire-gauze cylinder H,

blades I, and gauze-covered openings *y*, the space between the inner and outer cylinders being filled with a suitable fibrous material, substantially as described.

2. The pipes R and S, connecting the compartments B and C, the said pipes being of glass, and thus serving the double purpose of conduits and gages, substantially as described.

3. The combination, with the case A, of the glass gage and conduit-pipes, and the drum F, having the cylinder H, and interposed fibrous material and wire-gauze-covered openings *y*, substantially as described.

In testimony whereof I have hereunto signed my name.

J. J. PAQUETTE.

In presence of—
W. L. MURRAY,
J. C. HUBBELL.