W. F. BOSSERT.
Carbureter.

No. 198,270. Patented Dec. 18, 1877.

Fig. I

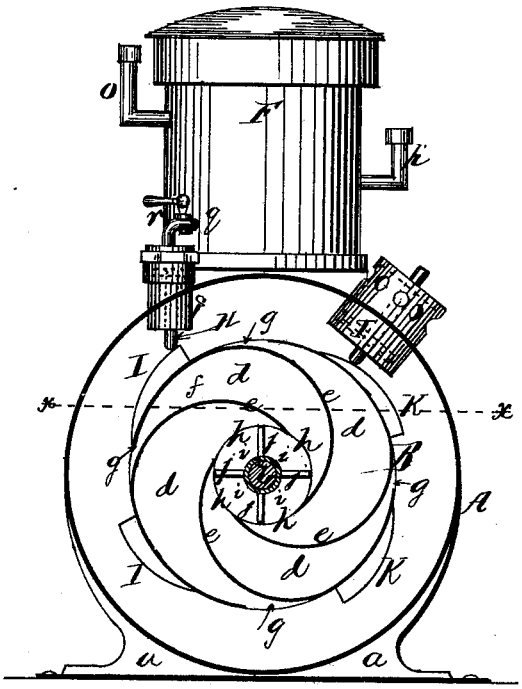


Fig. III

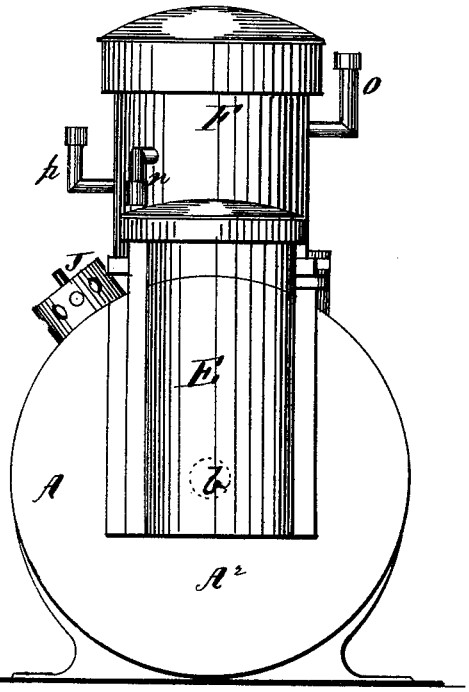
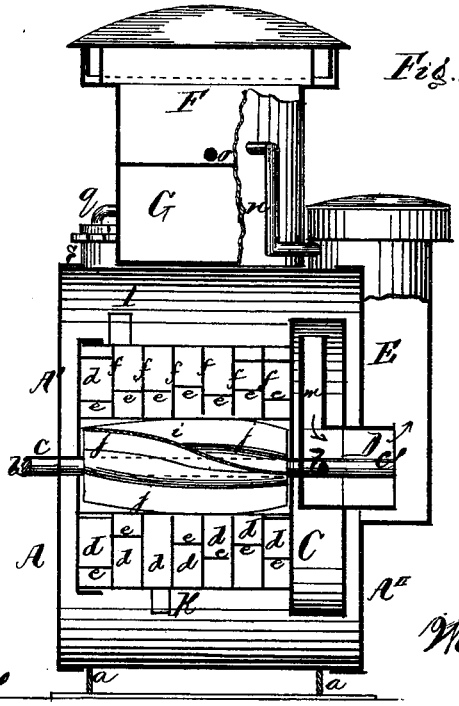


Fig. II



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UNITED STATES PATENT OFFICE.

WILLIAM F. BOSSERT, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN CARBURETERS.

Specification forming part of Letters Patent No. **198,270**, dated December 18, 1877; application filed February 27, 1877.

To all whom it may concern:

Be it known that I, WILLIAM F. BOSSERT, of Brooklyn, Kings county, State of New York, have invented new and useful Improvements in Air-Gas Machines; and I hereby declare that the following is a clear and exact description, which will enable others to make and use my invention, reference being had to the accompanying drawings, forming a part of this specification, and to the letters and figures of reference marked thereon.

My invention consists, first, in the construction of an improved carbureting-cylinder, which is placed inside of the vessel containing the oil, and in which this cylinder is rotated, and by aid of which the air is forced into and brought most intimately in contact with the oil.

My invention consists, secondly, in feeding the vessel in which the cylinder is rotated automatically with oil in proportion as the same is consumed by the burning of the air-gas.

My invention consists, thirdly, in supplying air to the vessel in which the cylinder is rotated; also, in proportion as the air is consumed by the burning of the air-gas.

The supply of both oil and air ceases when the rotation of the cylinder stops, and, as the inlets to the vessel containing the oil and gas are thus closed, all danger of explosion or ignition is prevented.

Referring to the drawings, Figure I is a front view of an air-gas machine (with the front cover removed) embodying my invention. Fig. II is a sectional elevation, and Fig. III is a back view of the same.

A is the casing, supported on the legs *a a*. Into this casing is placed the cylinder B, which is revolved on the axle *b*, the journal *e* of which is fastened to the front head A^1, and the journal *c'* of which is fastened to the head of the conduit D.

The cylinder B contains a series of annular spaces, *d d*, which are separated from each other by the curved walls *e e* and the divisions *f f*.

These annular spaces are provided with inlets *g g* and outlets *h h*, which lead into the central openings *i i* formed by the curved arms *j j* extending outward from the axle *b* to the walls of the central openings.

The inlets *g g* are so arranged, in combination with the curved walls *e e*, that the air will, when the cylinder is revolved, be consecutively forced into the openings *i i*, and from these, intimately loaded with air-gas, into the annular chamber C formed in the back end of the cylinder B, and from this chamber into the conduit D, through the pipes *m m* into the chamber E on the outer side of the head A″.

From this chamber E the gas is carried through pipe *n* into the reservoir F, placed on the top of the casing A, from which it is conducted through pipe *o* to the gas-burners.

The casing A is filled with oil to the line *x x*. Above this line is the air-space.

Under the reservoir F is placed the reservoir G, with pipe *p*, through which the same is supplied with oil.

q is a pipe, with faucet *r* regulating the supply of oil from the reservoir G into the vessel A, into which it is conducted through the pipe *s* with valve H.

On the outside of the cylinder B are placed a number of cams, I I, which, when the cylinder is rotated intermittingly, open the valve H, which admits oil into the vessel in proportion as the gas is consumed in the burners. In the same manner air is admitted into the vessel A through the valve J, which is intermittingly opened by the cams K K, also placed on the outside of the cylinder B.

It will be readily understood that the air in the annular spaces *d d* in the cylinder B is forced into the oil when the said cylinder is rotated.

Having thus described my invention, I desire to claim—

1. The cylinder B, with the annular spaces *d d* formed between the curved walls *e e* and the divisions *f f*, with inlets *g g* and outlets *h h* leading into the central openings *i i* formed between the curved arms *j j*, extending from the axle *b* outward to the walls of the central opening, and the chamber C, with conduit D and pipes *m m*, in combination with the vessel A, provided with valves H and J

and cams I and K, substantially as and for the purpose set forth.

2. The valve H, in combination with the cams I I placed on the cylinder B, and the reservoir G, with pipes *p* and *q*, and the vessel A, substantially as and for the purpose set forth.

3. The valve J, in combination with the cams I K, placed on the cylinder B, and the vessel A, substantially as and for the purpose set forth.

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