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M. LOEWENSTEIN.

CARBURETER.

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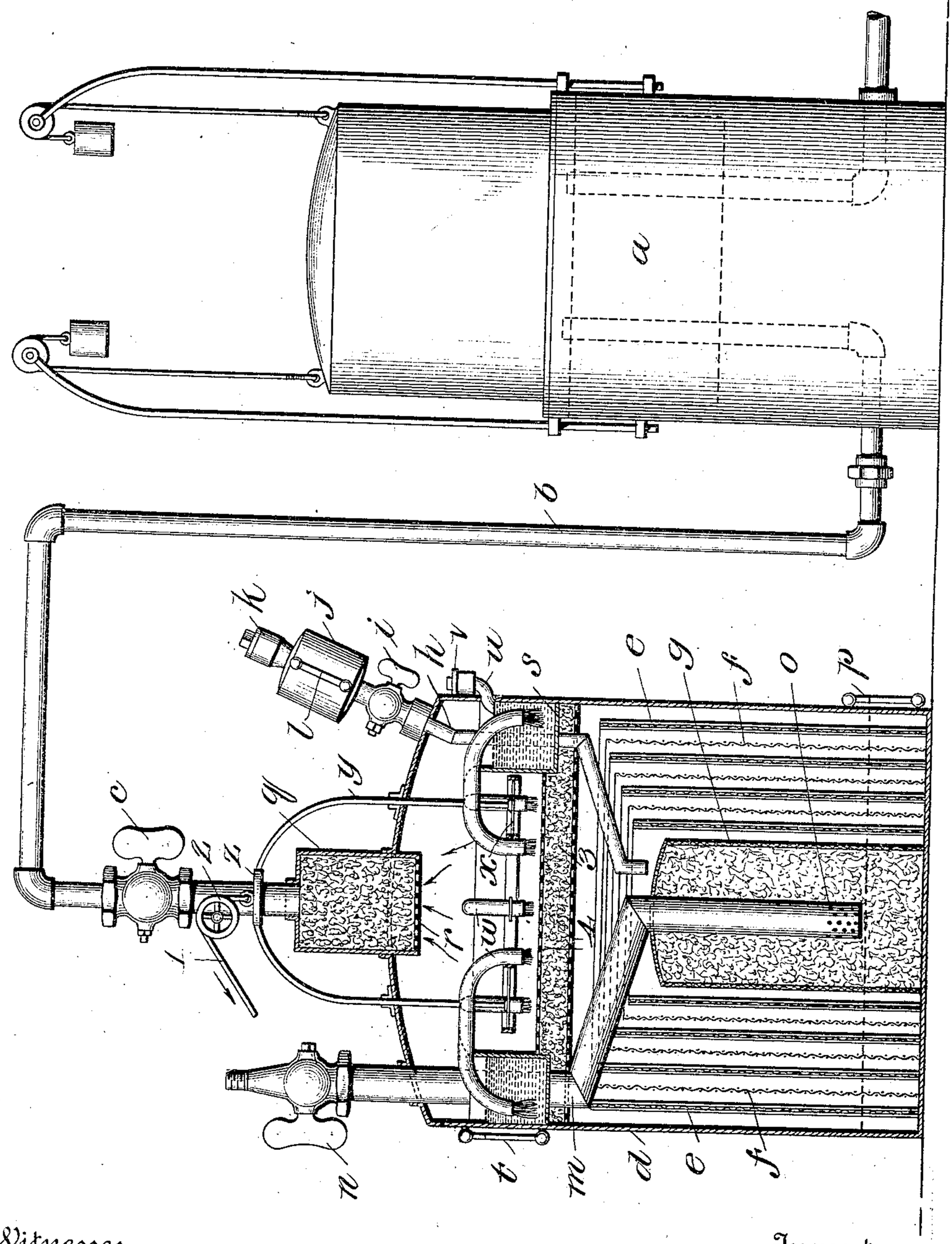

Witnesses

Geo. H. Boyce.

Stephen Hinton.

Inventor

M. Loewenstein

By Wilkinson & Fisher

Attorneys.

UNITED STATES PATENT OFFICE.

MAXMILIAN LOEWENSTEIN, OF BRUSSELS, BELGIUM, ASSIGNOR OF TWO-THIRDS TO JONAS STORK, OF BRUSSELS, BELGIUM, AND MAURICE KIND, OF NEW YORK, N. Y.

CARBURETER.

No. 855,407. Specification of Letters Patent. Patented May 28, 1907.

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To all whom it may concern:

Be it known that I, MAXMILIAN LOEWENSTEIN, a subject of the King of Belgium, residing at Brussels, in the Kingdom of Belgium, have invented certain new and useful Improvements in Carbureters; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in carbureters, and the object of my invention is to produce a simple and cheap device of this character and one in which the regulation of the carbureted air produced may be efficiently and easily accomplished.

In the accompanying drawings, the figure represents a side elevation partly in section of my improved carbureter with a gasometer connected thereto.

a represents a gasometer of any usual or preferred construction, which is connected by a pipe *b*, provided with a stop cock *c*, with the generator *d*.

e represents coarse wire netting covered with wicking or any other suitable pervious material such as flannel, cloth, or similar substances. In fact any absorbent pervious material can be used. This part *e* is in the form of a cylinder open at both ends with a strip of wicking or similar material wound around it, whereby the wire netting is entirely concealed, said wire netting serving simply as a support. This hollow cylinder of wire usually rests loosely on the bottom of the generator casing, but if desired it can be fastened thereto in any suitable way. Within said hollow cylinder are a number of smaller cylinders similarly made and arranged concentrically within the first named cylinder. Instead of a cylinder, it is obvious that the parts *e* may be of any desired shape.

Between the parts *e* are preferably located screens *f*, made for example of wire gauze. These screens are preferably made of the same shape as the parts *e* and interposed between them for the purpose of always keeping the parts *e* out of contact with each other. These screens *f* may be omitted, if desired.

Inside the innermost part *e* is left a large open space in which is located a bag *g* made of any suitable material, having its top closed and its bottom open, and tightly packed with sponge or similar absorbent material. This bag may be made of any suitable substance, such as burlap or strong cloth, but in practice I have obtained excellent results from a bag made of wicks woven together.

h represents a pipe passing in through the top of the generator *d*, having its lower end open and preferably located above the bag *g*. Through this pipe any desired carbureting liquid, is introduced into the generator. Outside of the generator this pipe is provided with a valve *i* of any desired construction and an enlargement *j* into which a considerable portion of the liquid may be poured and kept ready for use. This enlarged portion or small storage tank *j* is adapted to be closed by a screw cap *k*, by removing which the receptacle *j* may be easily filled. Said receptacle is preferably provided with a gage glass *l* so that it may be readily determined how much liquid is contained in said receptacle.

m represents a pipe through which air is forced into the generator. This pipe is in practice connected with any suitable means, such as a fan driven by clock work, for forcing air into the generating casing *d*. This pipe is provided with an ordinary valve *n*. Within the casing *d* the pipe *m* is bent so as to pass downwardly almost to the bottom thereof and preferably at or near its center. The lower end thereof is preferably open and may be provided with perforations *o*, or if desired the lower end of the pipe may be closed and provided with perforations like the perforations *o*.

The bag *g* containing the sponges fits closely around the pipe *m* and its lower open end rests on the bottom of the casing *d*. The liquid supplied to the interior of this casing should never reach up above the bottom of this pipe, as this would tend to cause the air, which passes through the liquid, to produce bubbles, which are always detrimental to the quick formation of carbureted air.

The casing *d* is also provided with a gage glass *p* so that by inspection it may be readily determined how much liquid there is in said casing.

At the top of the casing *d* is located an extension *q* which is packed with sponge or similar substances, said sponge being held in place by the perforated base plate *r*. This device acts as a filter and at the same time

causes a thorough mixture of the air and volatilized liquid. This filter, however, is not strictly necessary, but may be omitted if desired To the upper part of this filter is connected one end of the pipe *b*.

In the upper part of the generator *d* is located a trough or receptacle *s* shown as annular, but the shape thereof is not material. A gage glass *t* is provided, which shows the height of the liquid in this trough or receptacle *s*. When the apparatus is started in operation this trough is filled by means of the pipe *u* which is closed by the screw cap *v*. A number of bent tubes *w*, each provided with a wick therein and each of which may also be provided with a stop cock if desired, pass from the trough *s* toward the center of the apparatus. These tubes are secured to a ring or frame-work *x* which has two or more arms which pass through bearings in the top of the casing and which arms are secured to a ring *z* loosely mounted on the pipe *b*. A cord 1 passes over a pulley 2 and is connected to said ring, by means of which cord the frame-work *x* carrying the pipes *w* can be lifted up out of the liquid contained in the trough *s*. When these pipes are in the position shown in the drawing, the liquid in the trough *s* is slowly absorbed by the wicking and drops down in the interior upon the absorbent material 3 which is held in place by the perforated screens 4. In this way the air that is forced in through the pipe *m* is caused to pass not only through the absorbent material in the bag *g*, but also through the absorbent material 3, which insures a very rapid and efficient volatilization of the fluid.

Having thus described my invention, I claim:—

1. In a carbureter, the combination of a casing, screens inclosing a pervious material and dividing said casing into two parts, an air pipe passing into said casing and through said screens, a receptacle packed with pervious material surrounding the discharge end of said air pipe, one or more wicks surrounding said pervious receptacle, and means for delivering a volatilizable liquid to the receptacle surrounding the lower end of said air pipe, substantially as described.

2. In a carbureter, the combination of a single casing, a plurality of carbureting means in said casing, one of said means dividing said casing into two parts, means for supplying air to said casing, means for supplying a volatilizable liquid to each of said carbureters, and means for discontinuing the supply of volatilizable liquid to one of said carbureters, thereby throwing it out of operation, substantially as described.

3. In a carbureter, the combination of a casing, a layer of pervious material dividing said casing into two parts, screens for holding said pervious material in place, an air inlet tube passing into said casing and through said screens, a trough located above said pervious material, a plurality of siphons entering said trough and provided with wicks, an adjustable frame supporting said siphons, means for raising and lowering said frame, a bag of loosely woven material filled with pervious material surrounding the lower end of said air pipe, a plurality of screens covered by wicking surrounding said bag, and a filler for the outflowing gas, substantially as described.

In testimony whereof, I affix my signature in presence of two witnesses.

MAXMILIAN LOEWENSTEIN.

Witnesses:
JOS. H. BLACKWOOD.
ALPHONSE LISNER.