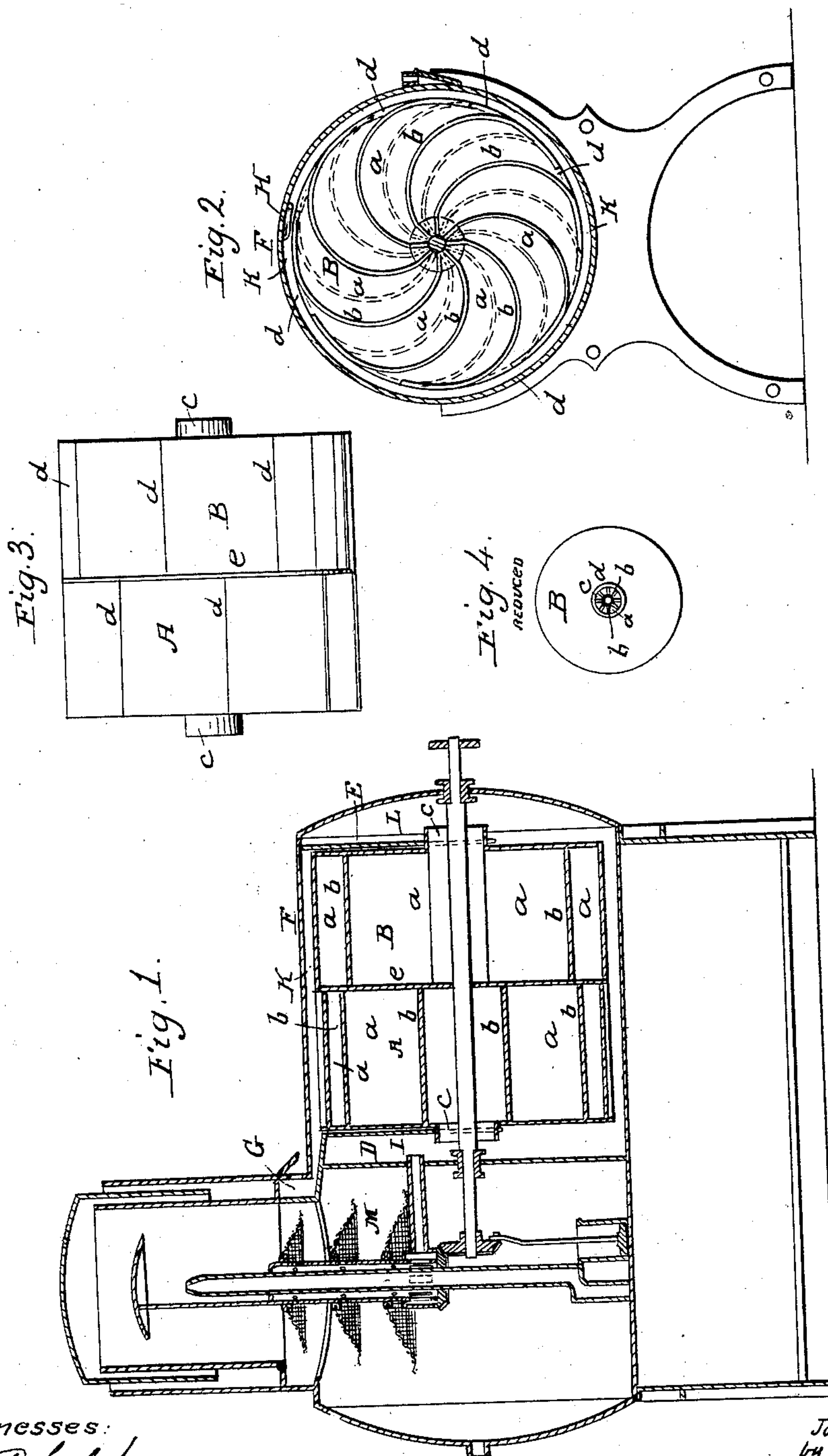


J. B. TERRY.
Air Carburetor.

No. 55,741.

Patented June 19, 1866.



Witnesses:
J. P. Hale Jr.
L. H. Shackburn

Inventor:
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UNITED STATES PATENT OFFICE.

JOHN B. TERRY, OF AUBURNDALE, MASSACHUSETTS.

IMPROVED APPARATUS FOR CARBURETING AIR.

Specification forming part of Letters Patent No. 55,741, dated June 19, 1866.

To all whom it may concern:

Be it known that I, JOHN B. TERRY, of Auburndale, in the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in Apparatus for Carbureting Air; and I do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawings, of which—

Figure 1 is a longitudinal section, and Fig. 2 a transverse section, of it, this latter being taken through one of the two conjoined bucket-wheels and having represented in dotted lines the positions of the buckets of the next wheel. Fig. 3 is a top view of the two bucket-wheels. Fig. 4 is an end elevation of one of the said wheels.

Each of such wheels A B consists of a series of open buckets or chambers, *a a a*, &c., extending from and arranged about a horizontal shaft, C, and formed as shown in Fig. 2. Each of the divisional partitions *b* of the buckets of one wheel is arranged midway between two partitions of a bucket of the next wheel, the same being as shown in Fig. 2. The partitions of each wheel are continued into a hollow tube or cylinder, *c*, arranged at the middle of the outer end of the wheel, the same causing each bucket to empty through the cylinder *c* of its wheel, the mouths *d d* of the buckets being at the circumference of the wheel.

The two wheels are arranged end to end, and are separated by a partition, *e*, forming a head to each of them, the outer head of each being a solid disk, except at its junction with its cylinder *c*. Furthermore, the wheels are arranged within and so as to be capable of revolving in a case, F, to contain water up to or a little above the level of the tops of the cylinders *c c*. Within such case are two transverse partitions, D E, each of which extends from the top of the case down to, or about to, a level with the bottom of one of the cylinders *c c*, such cylinders going through the said partitions. By means of such partitions three air-chambers, I K L, are formed within the case F, and above the water when therein.

The two wheels A B are situated within the middle chamber, K, which is the induction air-chamber, and has a conduit or pipe, G, leading into it from the external atmosphere.

The two chambers I L are connected by a pipe, H, leading from one to the other of them.

The chamber I opens into a vaporizing-chamber, M, containing a suitable mechanism or means of diffusing a volatile hydrocarbon liquid when placed within such chamber.

My invention being confined to the apparatus for supplying such vaporizing chamber with air to be carbureted therein, and subsequently expelled therefrom for the purposes of heat or illumination, it will not be necessary for me to further describe such means or mechanism for vaporizing the liquid.

The conjoined wheels A B of the air-forcing apparatus are to be revolved by suitable means. While in revolution they will draw air from the chamber K and force it into the two chambers I L, where, in consequence of their being connected by the pipe H, it will have a common density and pass from one such chamber into the other, and thence into the vaporizing-chamber. Owing to the arrangement of the buckets of one wheel with respect to those of the other, the air will be expelled into and from the vaporizer in a steady stream without the pulsations which result from the employment of one wheel only and produce an unpleasant unsteadiness of the flame of the burner or burners connected with the vaporizer.

What I claim as my invention is—

The improved air-forcing apparatus made substantially as described—viz., not only of the two wheels A B, having their buckets arranged as explained, but of the case E, provided with the chambers I K L, the connecting-tube H, and the induction-passage G, as set forth.

J. B. TERRY.

Witnesses:

R. H. EDDY,
F. P. HALE, JR.