

J. R. ALLEN.
CARBURETER.

No. 174,054.

Patented Feb. 29, 1876.

Fig 1

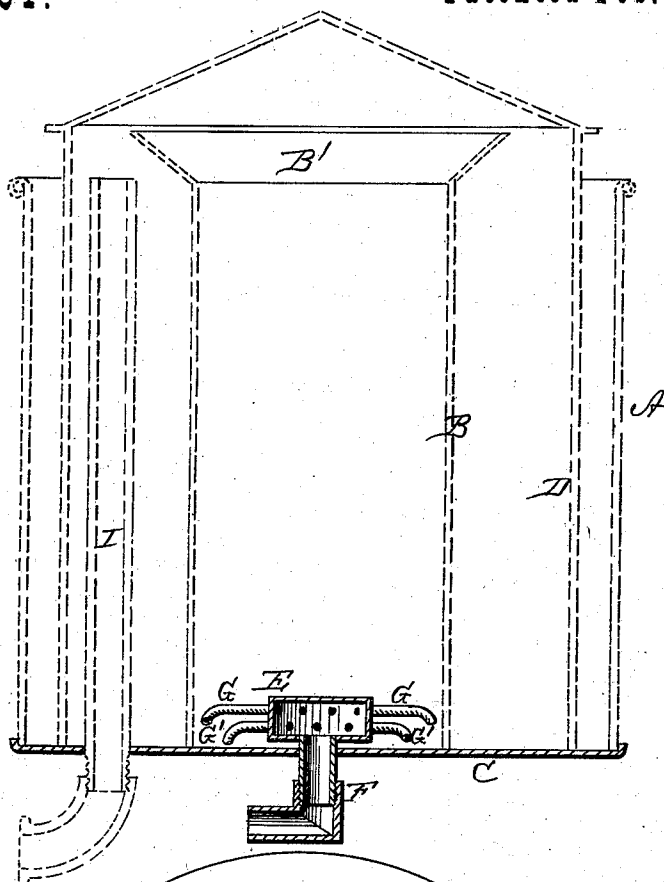
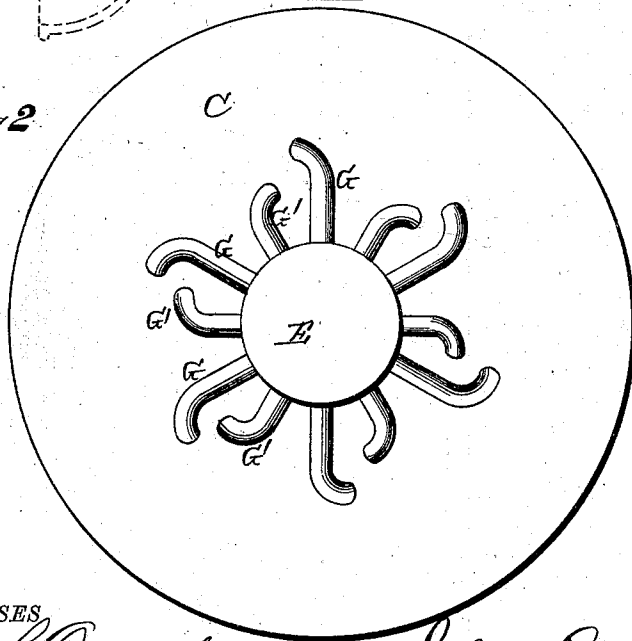


Fig 2



WITNESSES

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INVENTOR

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UNITED STATES PATENT OFFICE.

JOHN R. ALLEN, OF PITTSBURG, PENNSYLVANIA.

IMPROVEMENT IN CARBURETERS.

Specification forming part of Letters Patent No. **174,054**, dated February 29, 1876; application filed August 20, 1875.

To all whom it may concern:

Be it known that I, JOHN R. ALLEN, of Pittsburg, in the county of Allegheny and in the State of Pennsylvania, have invented certain new and useful Improvements in Carbureters; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

My invention is intended as an improvement upon the carbureter for which Letters Patent No. 165,050 were granted to me June 29, 1875; and it consists in the construction and novel arrangement of the device for admitting air to the hydrocarbon liquid, whereby said liquid is thoroughly agitated, so as to fully impregnate the air with hydrocarbon, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawings, in which—

Figure 1 is a vertical section of my carbureter, embodying my present invention. Fig. 2 is a plan view of the bottom of the carbureter, with my invention thereon.

A represents the outer, and B the inner, of the two concentric cylinders; B', the flaring mouth of the inner cylinder; D, the gas-holder, and I the outlet-pipe for the gas, all constructed in the same manner as described in my former patent above referred to.

On or near the bottom C of the inner cylinder is a circular box or chamber, E, secured to

the upper end of the air-supply pipe F. The box E is provided with two series of hollow radial arms, G and G', arranged alternately, as shown. The outer ends of the upper series of arms, G, are bent all in one direction, and the outer ends of the lower series of arms, G', are bent in the opposite direction. These latter arms are made shorter than those of the upper series, so that the air-currents from the different arms will pass each other.

By this means a thorough agitation of the hydrocarbon liquid is secured, and a perfect circulation of air through it, so that the air will become fully and thoroughly impregnated with hydrocarbon.

In the manufacture of the box or chamber E, with its radial arms, the box will preferably be made in two parts, for convenience in casting, and said parts united by a center-bolt or other suitable means.

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

In a carbureter, the air box or chamber E, provided with two series of hollow radial arms, G and G', the arms of the two series having their outer ends bent or curved in opposite directions, substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 18th day of August, 1875.

JOHN R. ALLEN.

Witnesses:

H. A. HALL,
C. L. EVERT.