A. W. WILKINSON.

Improvement in Carbureters.

No. 123,539. Patented Feb. 6, 1872.

Fig. 1.

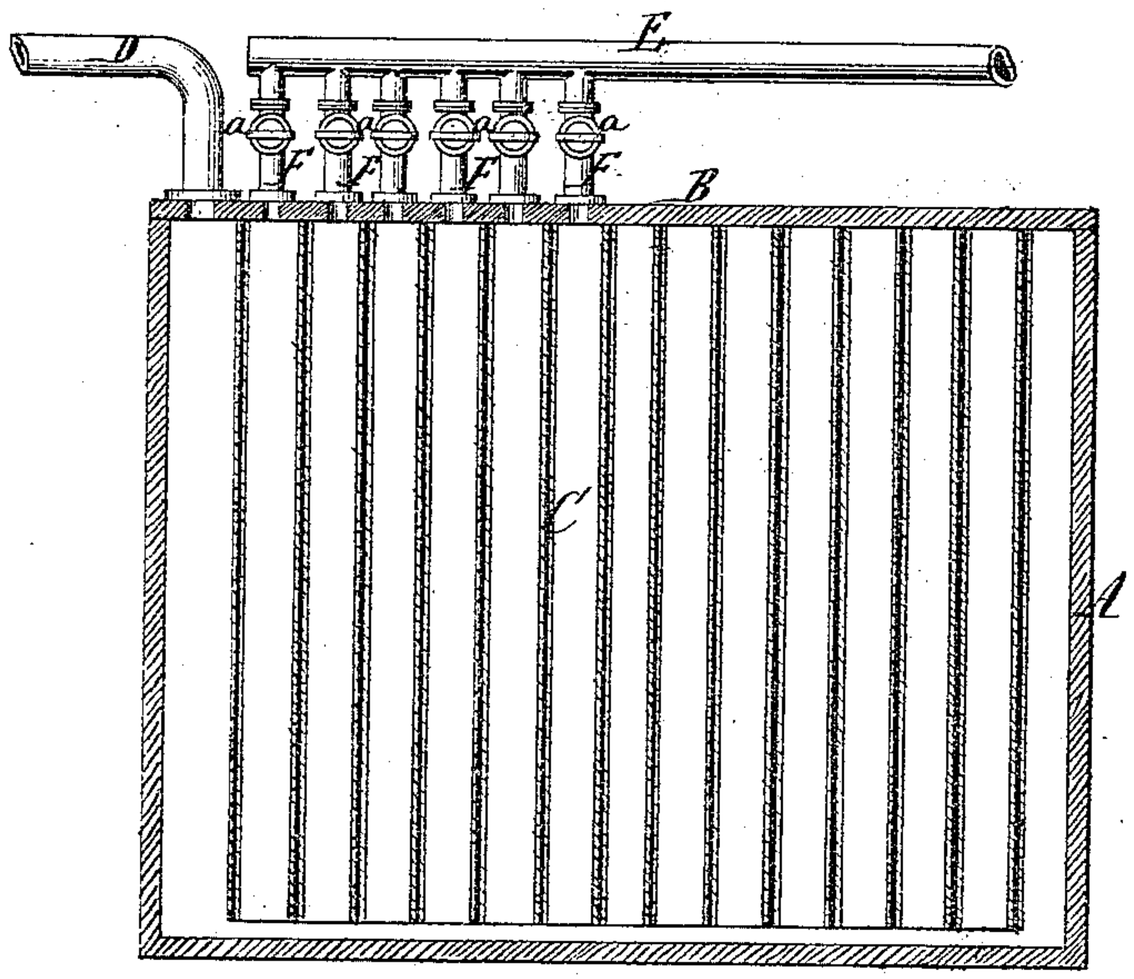
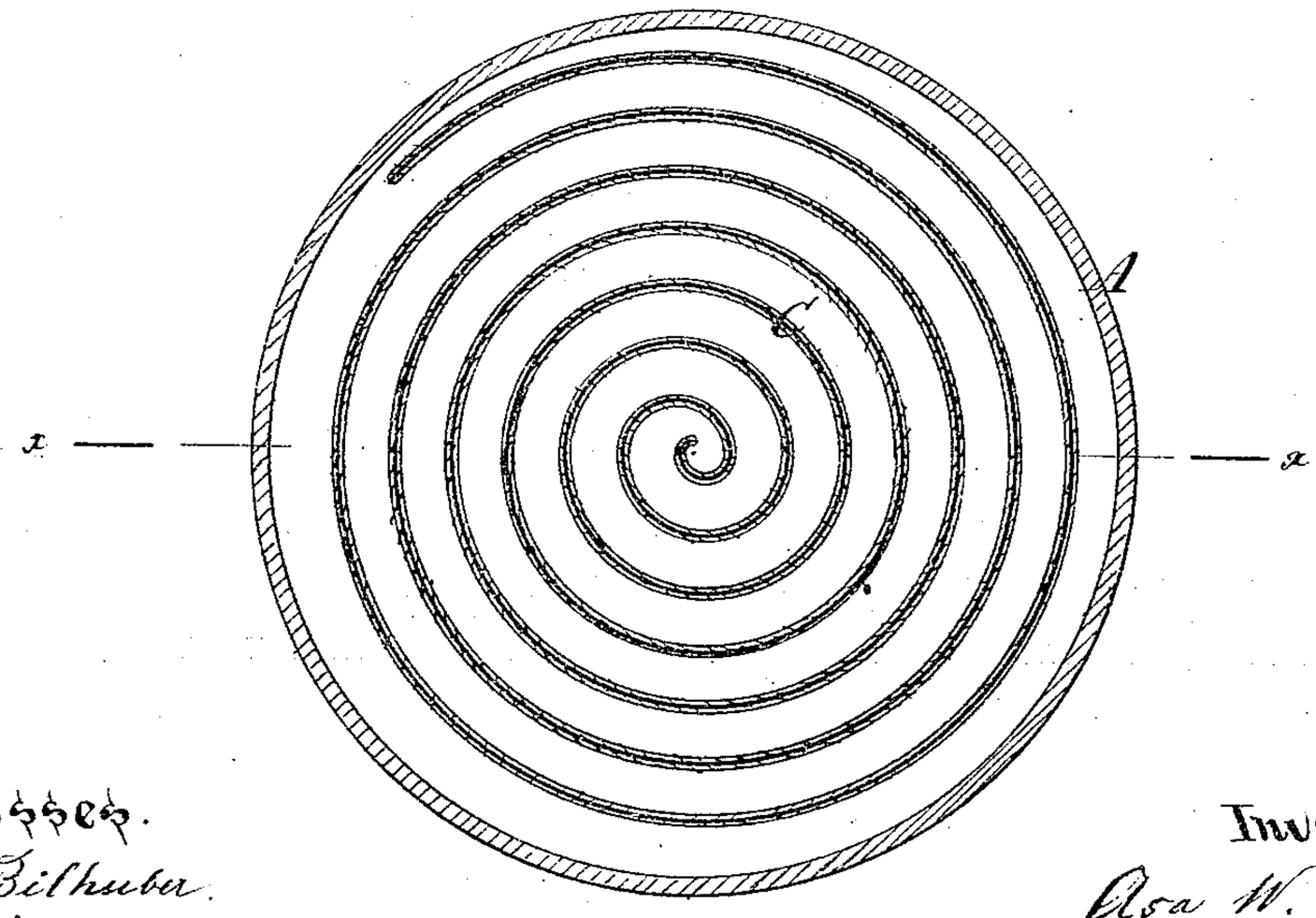


Fig. 2.



Witnesses.
Ernst Bilhuber.
b Wahlers.

Inventor.
Asa W. Wilkinson
per
Van Santvoord & Hauff
Attys

UNITED STATES PATENT OFFICE.

ASA W. WILKINSON, OF NEW YORK, N. Y.

IMPROVEMENT IN CARBURETERS.

Specification forming part of Letters Patent No. 123,539, dated February 6, 1872.

To all whom it may concern:

Be it known that I, ASA W. WILKINSON, of the city, county, and State of New York, have invented a new and useful Improvement in Carbureters; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which drawing—

Figure 1 represents a vertical central section of my invention in the plane *x x*, Fig. 2. Fig. 2 is a horizontal section of the same.

Similar letters indicate corresponding parts.

This invention relates to an improvement in that class of carbureters which contain a spiral passage lined with cloth or other absorbent material, so that the gas which is to be carbureted, when passed through the spiral passage, is brought in contact with the hydrocarbon spread over an extensive evaporating-surface, and thereby the desired object is attained. My improvement consists in the arrangement of a series of nozzles provided with stop-cocks and leading each into one of the spaces or coils of the spiral passage, in combination with the pipe which is intended to carry off the carbureted gas, in such a manner that, by means of the stop-cocks and nozzles, the gas can be drawn off from either of the coils of the spiral passage, and the quantity of hydrocarbon-vapors taken up by said gas can be controlled.

In the drawing, the letter A designates a vessel, from the top or cover B of which is suspended a coil, C, made of sheet metal or other suitable material and lined with cloth, lamp-wick, or other absorbent material. Through said top, and near its circumference, passes the feed-pipe D, by which the gas to be carbureted is introduced into the apparatus. E is the discharge-pipe, which connects with the interior of the vessel A by a series of nozzles, F, which lead into the spaces between the coil C, (see Fig. 1,) and each of which is provided with a stop-cock, *a*.

The vessel A is filled with hydrocarbon liquid, and the gas to be carbureted, on being admitted through the pipe D, comes in contact with the surface of the hydrocarbon liquid, and also with the lining of the coil, which is saturated with the hydrocarbon liquid, and, while passing through the spiral passage formed by the coil C, the gas becomes carbureted. The distance through which the gas is allowed to travel through the spiral passage is regulated by means of the stop-cocks *a*. If the cock nearest to the feed-pipe is opened the gas will travel only through one coil of the spiral passage, and it will take up a proportional amount of hydrocarbon-vapors; and by closing this cock and opening the next the gas is compelled to travel through a greater portion of the spiral passage, and by these means the quantity of hydrocarbon-vapors taken up by the gas can be regulated; and, particularly as the quantity of hydrocarbon liquid in the vessel A diminishes, the regulating-cocks and nozzles become of great importance, and I am enabled to control the quality of the gas-mixture with accuracy under all circumstances.

What I claim as new, and desire to secure by Letters Patent, is—

The regulating-nozzles F, in combination with the coil C, vessel A, feed-pipe D, and discharge pipe E of a carbureter, substantially as herein shown and described.

A. W. WILKINSON.

Witnesses:

W. HAUFF,

E. F. KASTENHUBER.