C. W. SOULE.
Carbureter.

No. 227,853. Patented May 18, 1880.

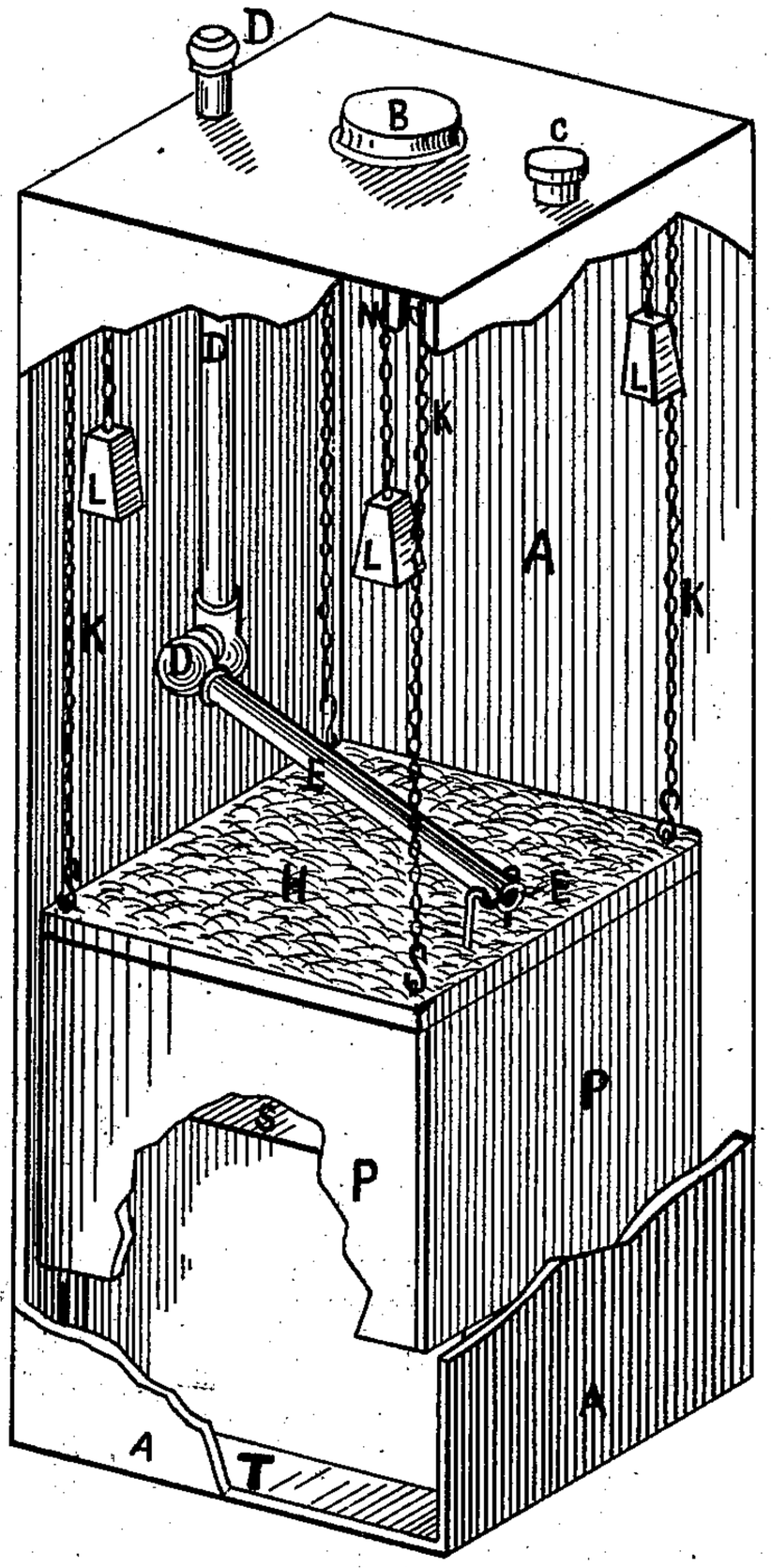

Fig. 1.

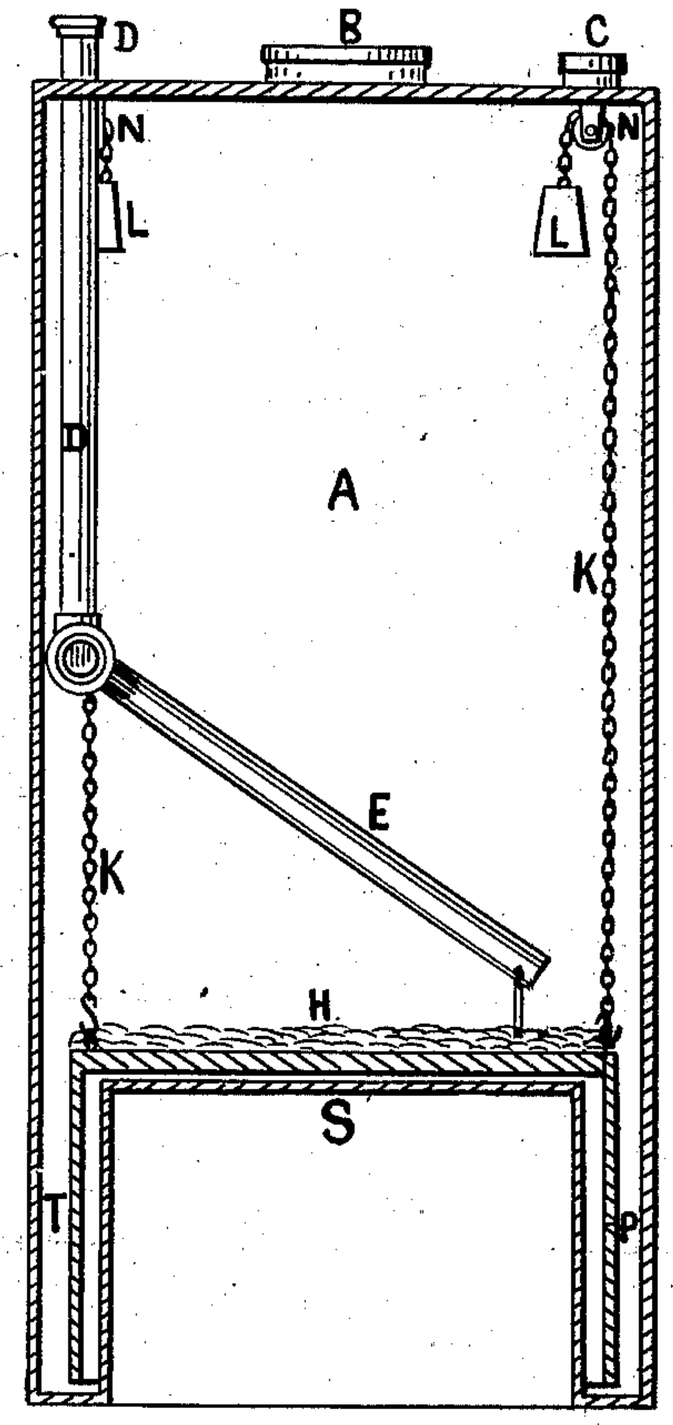

Fig. 2.

Witnesses.
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UNITED STATES PATENT OFFICE.

CHARLES W. SOULE, OF BOSTON, ASSIGNOR OF ONE-HALF OF HIS RIGHT TO FRANK R. KIMBALL, OF SALEM, MASSACHUSETTS.

CARBURETER.

SPECIFICATION forming part of Letters Patent No. 227,853, dated May 18, 1880.

Application filed February 2, 1880.

To all whom it may concern:

Be it known that I, CHARLES W. SOULE, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Carbureters, of which the following is a specification.

The object of my invention is to provide a cheap, simple, and efficient carbureting apparatus, which shall produce a more uniform light and at a reduced cost; and it consists in the construction, combination, and arrangement of a float, channel, and automatic adjusting gas-exit pipe, as hereinafter more fully described and set forth.

Figure 1 represents a perspective view, showing the internal construction of a carbureter provided with my invention. Fig. 2 is a vertical central section of the same.

A represents a tank or reservoir, which should be formed with double walls, leaving a space between, which may be filled with ashes or other desired material, as heretofore. The top of this tank or reservoir is provided with an opening, B, which permits the petroleum, naphtha, or other hydrocarbon liquid to be placed therein and closed by a suitable screw-cap or plug; and C represents an air hole or vent, closed in like manner, while D represents an outlet, to which a pipe is connected to conduct the carbureted gas to the burners, as usual. This pipe D extends downward within the reservoir A, as shown, and to its lower end is connected a flexible or yielding pipe, E, by a suitable socket or other joint, so as to permit its opposite end to move up or down freely, as the float H is carried up or down within the reservoir A, as the hydrocarbon liquid is evaporated or taken up by the air or gas introduced into the reservoir, as heretofore in carbureting apparatus.

It will be seen that by means of this automatic adjustment of the gas-outlet pipe E the heavier hydrocarbon gas, which lies nearest the absorbent material placed upon the top of the float H, will be free to enter the open end of the said automatic adjustable pipe E, while the lighter gas remains above the end of the said outlet-pipe, and consequently does not escape, as it would in case the outlet-pipe were constructed as heretofore.

The float H is counterbalanced within the reservoir A by means of weights L, attached to chains K, which are connected to the top of the float H, and pass upward and over pulleys N, secured at the top of the reservoir A, as shown in the drawings, and is formed with sides P, which extend downward within the annular space or groove-channel T, formed in the lower portion of the reservoir, and into which the hydrocarbon liquid is to be filled, so as to raise the float upward until the sides P are raised nearly to the top of the said channel T, the main body of liquid resting upon the raised central portion, S, of the bottom of the reservoir, thus allowing the horizontal float H to rest upon the top of the main body of the liquid, and as it is evaporated or taken up by the air or gas admitted into the reservoir as heretofore, the said float will recede or move downward, and thereby cause the hydrocarbon liquid to pass from underneath the main body of the float H, downward through the said channel T, and thence upward at the outside of the vertical sides P of the said float H.

Having thus described my invention, what I claim is—

In combination with the carbureter-case A, having the annular channel T and float H, provided with the downward-projecting sides P, the automatic adjusting gas-outlet pipe D E, having its lower open end kept in position near the upper surface of the said float H, substantially as described, and for the purposes set forth.

CHARLES W. SOULE.

Witnesses:

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