No. 765,351. PATENTED JULY 19, 1904.

A. S. AVERY & C. R. SMITH.

CARBURETER.

APPLICATION FILED AUG. 17, 1903.

NO MODEL.

Fig. 1

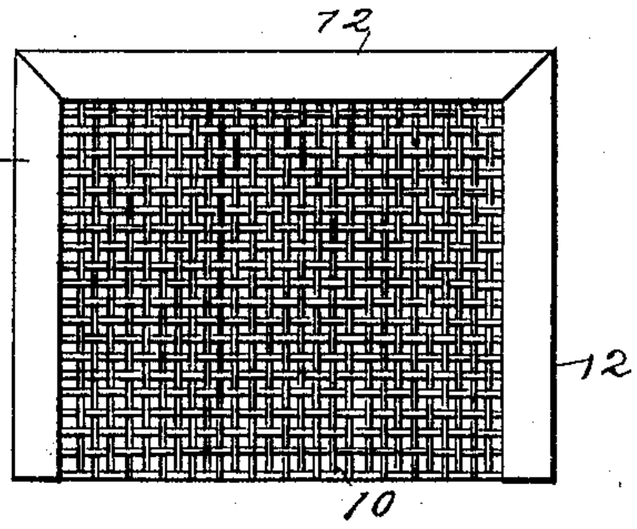


Fig. 2

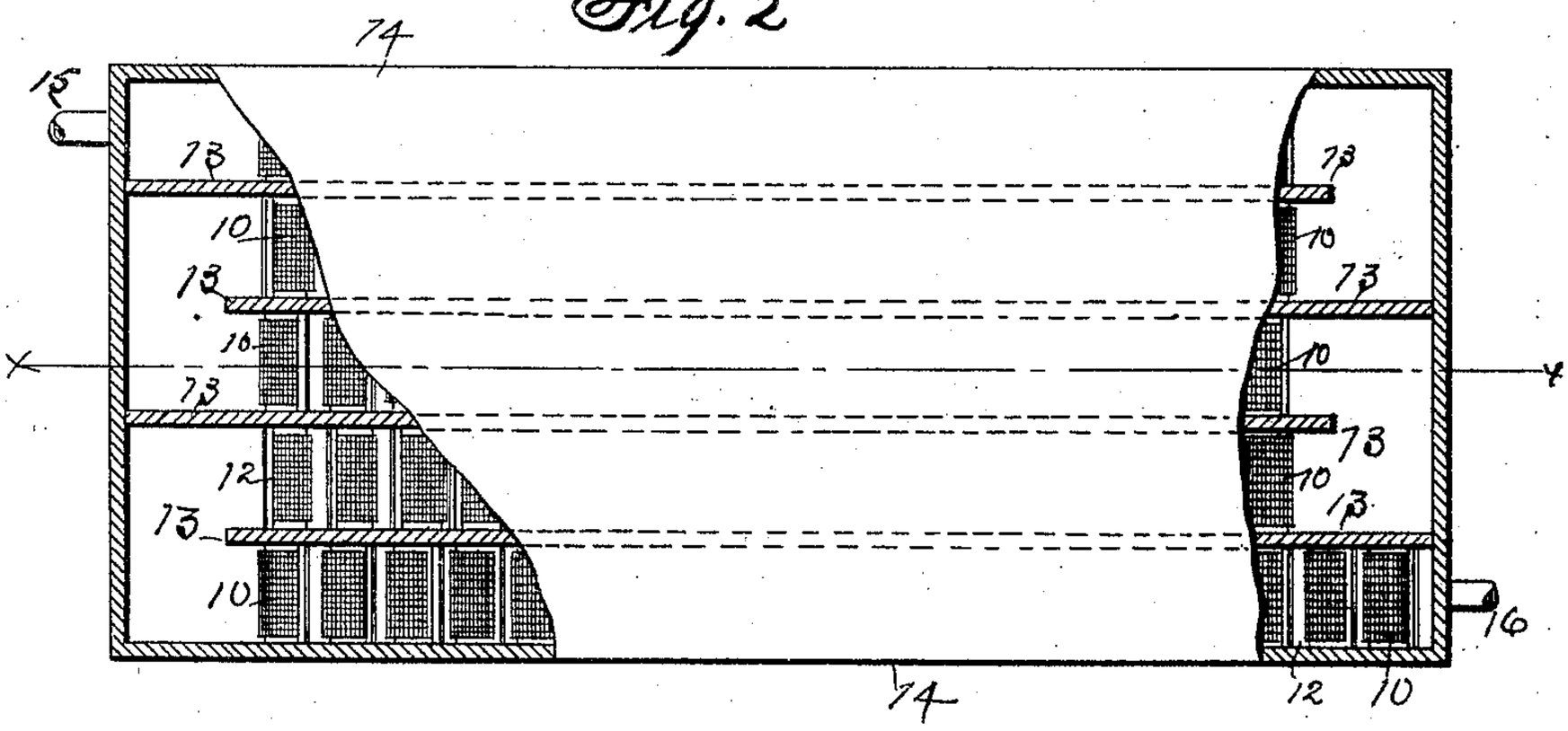
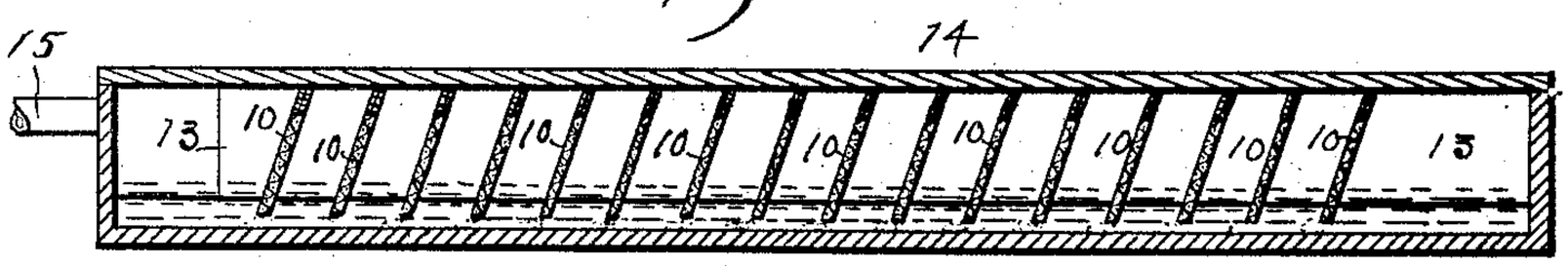


Fig. 3



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No. 765,351. Patented July 19, 1904.

UNITED STATES PATENT OFFICE.

ASHBEL S. AVERY AND CHARLES R. SMITH, OF MANILLA, IOWA.

CARBURETER.

SPECIFICATION forming part of Letters Patent No. 765,351, dated July 19, 1904.

Application filed August 17, 1903. Serial No. 169,842. (No model.)

To all whom it may concern:

Be it known that we, ASHBEL S. AVERY and CHARLES R. SMITH, citizens of the United States, residing at Manilla, in the county of Crawford and State of Iowa, have invented a new and useful Carbureter, of which the following is a specification.

Our object is to provide a simple carbureter in which gasolene will be elevated by capillary attraction into a current of air and rapidly volatilized as required to produce gas.

Our invention consists in placing a multiplicity of wicks in the passage-ways of a tank, as hereinafter set forth, pointed out in our claims, and illustrated in the accompanying drawings, in which—

Figure 1 is an enlarged view of one of the wicks. Fig. 2 is a top view of the tank, having passage-ways in which the wicks are placed. Part of the top is broken away. Fig. 3 is a sectional view on the line *x x* of Fig. 2 and shows the position of the wicks in the passage-way, through which air is forced by a blower.

The numeral 10 designates a wick made of coarse-woven textile fabric, cotton, or wool, through which air can pass through its meshes. A sheet-metal binding 12, consisting of strips of sheet metal doubled over the edge of the textile fabric, is fixed to the wick 10, at three sides only, to facilitate fastening it by soldering to the vertical partition-walls 13 in the tank 14, in an inclined position, as shown in Fig. 3, in such a manner as to leave a free passage for oil under the bottoms of the wicks and to cause the air to pass through the tops of the wicks above the oil and carry off the volatilized oil that has been elevated from the body of oil and spread in the wicks by their capillary attraction.

By means of the sheet-metal binding the wick is adapted to be soldered to the partition-walls 13 at its parallel vertical edges and the lower unbound edge of the flexible material retained above the bottom of the carbureter vessel to allow oil to flow freely beneath the wicks as required to facilitate the operation of the carbureter.

At one corner of the tank is a tube 15, through which air is forced by a blower to pass back and forth between the partitions 13 in a common way to the other end and corner, where it will escape through a tube 16. In passing through the serpentine passage formed by the partitions 13 it also passes through the multiplicity of wicks 10, that by capillary attraction elevate the gasolene and distribute it and subject it to the current of air to be volatilized much more readily and carried off with the air thus carbureted more speedily and effectively than by any other means heretofore known.

We are aware textile fabric has been fixed to the roof and bottom of a passage-way for oil and air in a carbureter vessel and are also aware that a scroll or curtain formed of textile fabric has been fixed at its top to a disk in a vessel to depend and terminate above the bottom of the vessel; but in no instance have a plurality of wicks been fixed at their tops and parallel sides in a serpentine passage-way in a tank to terminate above the bottom of the passage-way for oil and air in such a manner as to leave a free passage for oil under the wicks.

Having thus set forth the purpose of our invention and described its construction and operation, the utility thereof will be readily understood by persons familiar with the art to which it pertains, and

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

1. In a carbureter consisting of a flat tank having parallel vertical partitions extending longitudinally to produce a serpentine passage-way for air and oil, a plurality of wicks consisting of four-sided pieces of textile fabric provided with sheet-metal binding on all their edges excepting their lower edges and their three bound edges fixed to the tops and sides of said passage-ways to retain their unbound bottom edges above the bottom of the tank substantially as shown and described for the purposes stated.

2. A carbureter consisting of a flat tank having parallel vertical partitions extending longitudinally to produce a serpentine passage-way for air and oil, a plurality of wicks consisting of four-sided pieces of textile fabric

provided with sheet-metal binding on all their edges excepting their lower edges and their three bound edges fixed to the tops and sides of said passage-ways to retain their unbound bottom edges above the bottom of the tank, an air-inlet at one end of said serpentine passage-way and an air-outlet at its other end substantially as shown and described for the purposes stated.

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