No. 709,638. Patented Sept. 23, 1902.

C. J. JOHNSON.

GASOLENE REGULATOR.

(Application filed Dec. 3, 1901.)

(No Model.)

Fig. 1.

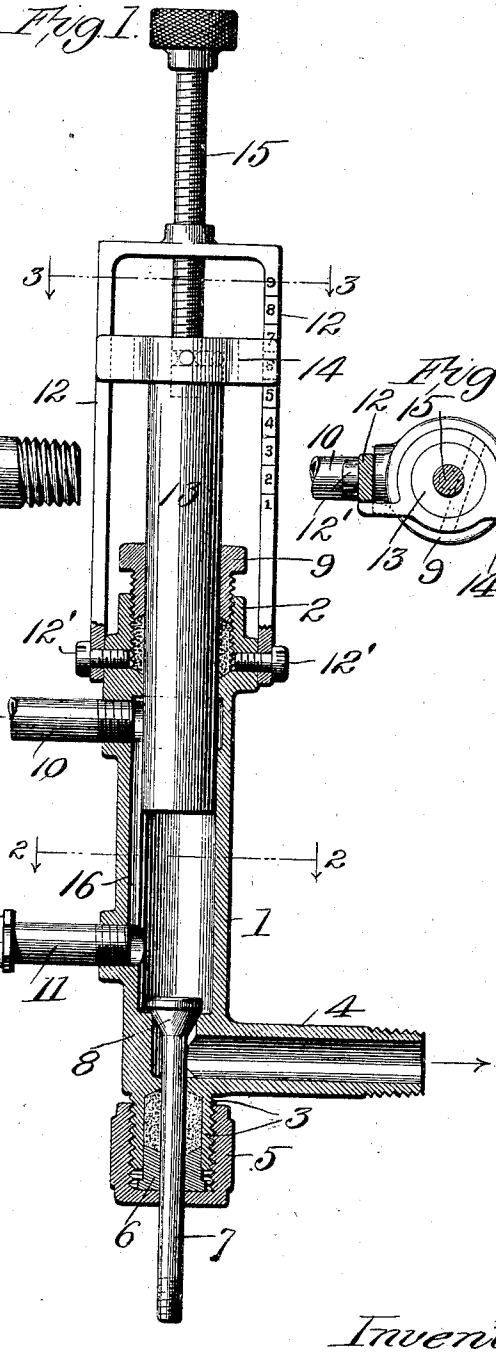


Fig. 2.

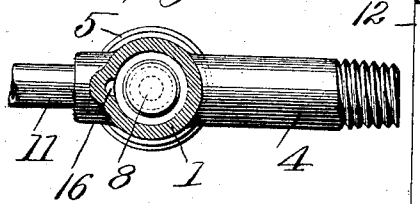
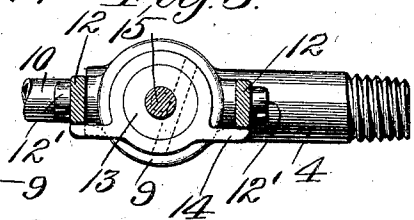


Fig. 3.



Witnesses:-
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UNITED STATES PATENT OFFICE.

CHARLES J. JOHNSON, OF ST. LOUIS, MISSOURI, ASSIGNOR TO CLIMAX NUT LOCK & MANUFACTURING COMPANY, OF ST. LOUIS, MISSOURI, A CORPORATION.

GASOLENE-REGULATOR.

SPECIFICATION forming part of Letters Patent No. 709,638, dated September 23, 1902.

Application filed December 3, 1901. Serial No. 84,533. (No model.)

To all whom it may concern:

Be it known that I, CHARLES J. JOHNSON, a citizen of the United States, residing at the city of St. Louis, State of Missouri, have invented a certain new and useful Improvement in Gasolene-Regulators, of which the following is a specification.

My invention relates to a device adapted for use in gas-machines, and has for its object the automatic regulation of the flow of gasolene through the machine to the point of consumption. It is an improvement on Letters Patent No. 673,542, granted to me and my assignee May 7, 1901.

Referring to the drawings which form a part of this specification, Figure 1 shows a detail vertical section of the regulator; Fig. 2, a horizontal section taken through the line 2 2 of Fig. 1, and Fig. 3 another horizontal section taken through the line 3 3 of Fig. 1.

1 is the casting which forms the reservoir. 2 is the upper end thereof, provided with an inside thread. 3 is the lower end, which is hollowed out to form a stuffing-box.

4 is the exit-pipe, through which the gasolene escapes for consumption.

5 is the cover, and 6 the gland, which forms the stuffing-box and through which the valve-stem 7 plays.

8 is the valve, which seats on the bottom of the reservoir and above the exit to the pipe 4.

The stem 7 is operated automatically by the machine-motor, (not shown,) the effect of which will be hereinafter described.

9 is the gland on the upper end of the casing 1 and which engages the threads 2.

10 is a pipe adapted to convey any excess of gasolene back to the reservoir therefor.

11 is the inlet-pipe, through which the gasolene is pumped into the reservoir or chamber in the casing 1.

17 is a check-valve in the pipe 11.

12 is a fork bearing a gage and which is held secure to the casing 1 by means of set-screws 12′.

13 is a plunger provided with ears 14 and regulated by means of the set-screw 15, which adjusts the capacity of the chamber within the casing 1. It will be observed that this plunger 13 works through a packing to prevent leaking and is capable of very accurate adjustment.

16 is a duct or channel formed in the side of the casing 1 and which leads to the overflow-pipe 10, which in turn leads back to the source of supply of the gasolene.

The device operates as follows: When the pump (not shown) of the gas-machine is forcing gasolene into the chamber 1, the connection between the valve-stem 7 and said pump keeps the valve 8 on its seat, and as the amount of the gasolene forced into said chamber is regulated so as to be greater than the capacity thereof the overflow will pass through the duct 16 and out into the main reservoir. On the opposite stroke of the pump the connection thereof with the valve-stem 7 opens the valve 8 and allows the gasolene to flow out through the pipe 4, and as the position of the plunger 13 is adjusted so as to approximately keep the necessary quantity of gasolene in the reservoir 1 about the amount needed this automatic action of the valve 8 prevents irregular flow to the point of consumption.

What I claim as new, and desire to secure by Letters Patent of the United States, is—

The combination of a reservoir, inlet and overflow pipes in communication with said reservoir, an adjustable plunger controlling the capacity of said reservoir, a duct on the side of said reservoir and leading to said overflow-pipe, a valve located at the bottom of said reservoir to reciprocate within the same longitudinally thereof, an outlet-pipe situated beneath said valve, substantially as described.

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Witnesses:
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