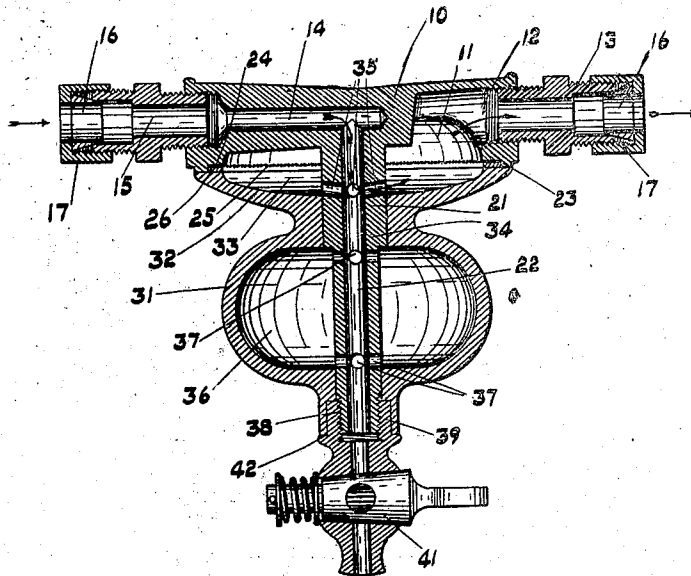


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 STRAINER AND SEPARATOR FOR GASOLINE SUPPLY.
 APPLICATION FILED MAY 22, 1909.

939,551.

Patented Nov. 9, 1909.



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UNITED STATES PATENT OFFICE.

GEORGE M. SCHEBLER, OF INDIANAPOLIS, INDIANA.

STRAINER AND SEPARATOR FOR GASOLENE-SUPPLY.

939,551.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, GEORGE M. SCHEBLER, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Strainers and Separators for Gasolene-Supply, of which the following is a specification.

In the use of gasolene in automobiles it is found that most all commercial gasolene contains some sediment, some light floating particles, and some water, all of which are deleterious to the proper action of the carbureter. It has heretofore been proposed to provide the supply tank, or supply line, with means by which these foreign matters would be separated from the gasolene but, so far as I am aware, those commercially in use are of such character that the constant jolting of the tank causes a slopping of the water relative to the gasolene in such a way that there is a continual remixture of the separated water from the body of the gasolene and a consequent reentrance of the lighter portions of the foreign solids and some of the water into the gasolene as it passes to the carbureter.

The object of my present invention is to produce a simple and readily applied device by means of which the water and other foreign matters may be separated from the gasolene, the construction being such that the water passes into the chamber which is independent of and separated from the main body of the gasolene. The construction is also such that the device may be readily inserted into the supply line between the tank and the carbureter.

The accompanying drawing, which is a vertical section, illustrates an embodiment of my invention.

In the drawings, 10 indicates a main body having a main chamber 11 provided with an outlet 12 in which is mounted a suitable coupling nipple 13. Extending into the main body 10 but separated from the chamber 11, is an entrance passage 14 the entrance end of which is equipped with a coupling nipple 15 like the nipple 13, the two nipples 13 and 15 being preferably such as to permit attachment to a supply line without the necessity of threading the ends thereof, thus making it possible, in existing machines, to cut a short section of the supply line out of the middle thereof, and, by first withdrawing the two nipples 13 and 15

upon the main body and slipping them upon the separated ends of the pipe line. The main body 10 may be brought between the nipples 13 and 15 and the packing gaskets 16 brought down upon the unthreaded ends of the supply line by means of the glands 17.

Arranged in the center of chamber 11 is a hollow post 21 which extends downward out of the chamber 11 and is provided with a central passage 22 which, at its upper end, communicates with the passage 14.

Surrounding the lower open end of the chamber 11 is an annular shoulder 23 and inside of said shoulder is an annular seat 24 adapted to receive a screen 25 which thus extends across the open lower end of chamber 11, said screen being centrally perforated so as to fit the post 21 closely. A suitable packing ring 26 is laid upon the screen 24 inside of shoulder 23 in order to make a tight joint.

Sleeved upon post 21 is a separator body 31 which, at its upper end, is provided with a cup-shaped flange 32 which thus forms a chamber 33 below screen 25. At an intermediate point 34, the separator body 31 closely fits the post 21 and formed through said post, at the bottom of chamber 33 are openings 35 which form a communication between passage 22 and chamber 33.

The separator body 31, below the part 34, is formed into a water-receiving chamber 36 and passages 37 are formed through post 21 in order to form a communication between passage 22 and chamber 33.

The separator body 31, below the part 34, is formed into a water-receiving chamber 36 and passages 37 are formed through post 21 in order to form a communication between passage 22 and said chamber 36. The lower end of post 21 is threaded at 38 in order to receive the threaded portion 39 of a drain cock 41 said drain cock being provided with a shoulder 42 adapted to engage the lower end of the separator body 31 and drive it tightly at its upper end, against shoulder 23 and packing 26.

It will be readily understood that a very great variety of details of construction for assembling the various parts might be adopted without in any way departing from the spirit of my invention.

In operation, gasolene will flow through the nipple 15, and passage 14 into the passage 22, and from thence through passages 35 into chamber 33 and through passages 37

into chamber 36. The heavy solids will immediately drop through passage 22 to the stop cock, the water will gather in chamber 36, and the gasoline will pass from chamber 33 through screen 25 into chamber 11 and thence out through the nipple 13, the screen 25 preventing the outflow of any light and floatable solids.

The water which gathers within the chamber 36, as well as the solids in passages 22, may at any time be drained by opening the stop cock 41.

It will be noticed that a practical tendency of all of the solids will be to gather in the passage 22 below passage 37 so that, when the stop cock is opened, the head of liquid above the solids will serve to wash said solids out thoroughly and completely. It will also be noticed that, without removing the structure from the supply line, the several parts may be very readily withdrawn for inspection, cleansing and replacement by merely unscrewing the stop cock 41. It will also be noticed that, no matter how much water may gather in chamber 36, and no matter how much jolting of the structure there may be, there is no possibility of the water, after once having been separated from the gasoline, from being splashed back into and intermingled with the primary supply of gasoline which is passing from chamber 33 through the screen to the carbureter.

I claim as my invention:

1. A separator and strainer, comprising a main body having inlet and outlet openings, a hollow post communicating with the inlet passage, a screen arranged between the outlet from said post and the outlet from the main body, a water chamber arranged below said screen, and a cock for opening and closing the water chamber.

2. A separator and strainer, comprising a main body having inlet and outlet openings, a hollow post communicating with the inlet passage, a screen arranged between the outlet from said post and the outlet from the main body, a water chamber arranged below said screen, a partition separating said water chamber from the screen chamber, and a cock for opening and closing the water chamber.

3. A separator and strainer, comprising a main body having a main chamber, a hollow post carried by the main body and projecting from the lower end of said chamber, a screen surrounding the said post and arranged in the lower end of said chamber, a separator body surrounding said post, said separator body cooperating with the lower end of the main chamber to close the same and said separator body comprising a water chamber, and a stop cock for closing the lower end of said water chamber, the said hollow post having communicating passages forming communication from the interior

thereof to a chamber below the screen and to the water chamber.

4. A separator and strainer, comprising a main body having a main chamber with an outlet passage, a hollow post carried by said main body and projecting downwardly beyond the open end of the main chamber and having an inlet passage therethrough, a screen arranged across the open lower end of the main chamber, a separator body sleeved upon the hollow post and engaging said post at an intermediate point, said separator body having a cup-shaped flange at its upper end to cooperate with the lower end of the main chamber of the main body and forming a chamber below the screen, and also having a water chamber surrounding the hollow post, the said hollow post having passages giving access to the chamber below the screen at a point immediately above the point of intermediate engagement of the separator body with the hollow post, and also having passages communicating from the interior of the post to the water chamber, and a stop-cock closing the lower end of the hollow post and the water chamber, said stop cock having threaded engagement with the hollow post and engaging the separator body to hold the same in place.

5. A separator and strainer, comprising a main body having a main chamber with an outlet passage, a hollow post carried by said main body and projecting downwardly beyond the open end of the main chamber and having an inlet passage therethrough, a screen arranged across the open lower end of the main chamber, a separator body sleeved upon the hollow post, said separator body having a cup-shaped flange at its upper end to cooperate with the lower end of the main chamber of the main body and forming a chamber below the screen, and also having a water chamber surrounding the hollow post, the said hollow post having passages giving access to the chamber below the screen, and also having passages communicating from the interior of the post to the water chamber, and a stop-cock closing the lower end of the hollow post and the water chamber.

6. A separator and strainer, comprising a main body having a main chamber with an outlet passage, a hollow post carried by said main body and projecting downwardly beyond the open end of the main chamber and having an inlet passage therethrough, a screen arranged across the open lower end of the main chamber, a separator body sleeved upon the hollow post, said separator body having a cup-shaped flange at its upper end to cooperate with the lower end of the main chamber of the main body and forming a chamber below the screen, and also having a water chamber surrounding the hollow post, the said hollow post having passages

giving access to the chamber below the screen, and also having passages communicating from the interior of the post to the water chamber, and a stop-cock closing the lower end of the hollow post and the water chamber, said stop cock having threaded engagement with the hollow post and engaging the separator body to hold the same in place.

7. A separator and strainer, comprising a main body having a main chamber with an outlet passage, a hollow post carried by said main body and projecting downwardly beyond the open end of the main chamber and having an inlet passage therethrough, a screen arranged across the open lower end of the main chamber, a separator body sleeved upon the hollow post and engaging said post at an intermediate point, said separator body having a cup-shaped flange at its upper end to cooperate with the lower end of the main chamber of the main body and forming a chamber below the screen, and also having a water chamber surrounding the hollow post, the said hollow post having passages giving

access to the chamber below the screen at a point immediately above the point of intermediate engagement of the separator body with the hollow post, and also having passages communicating from the interior of the post to the water chamber, and a stop-cock closing the lower end of the hollow post and the water chamber.

8. A separator and strainer, comprising a screen chamber, a screen mounted therein, a water chamber arranged below the screen chamber and separated therefrom by a partition, an inlet passage leading through said partition and communicating both with the water chamber and with the screen chamber below the screen, the said screen chamber having a suitable outlet above the screen.

In witness whereof, I, have hereunto set my hand and seal at Indianapolis, Indiana, this fifth day of May, A. D. one thousand nine hundred and nine.

GEORGE M. SCHEBLER. [L.S.]

Witnesses:

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