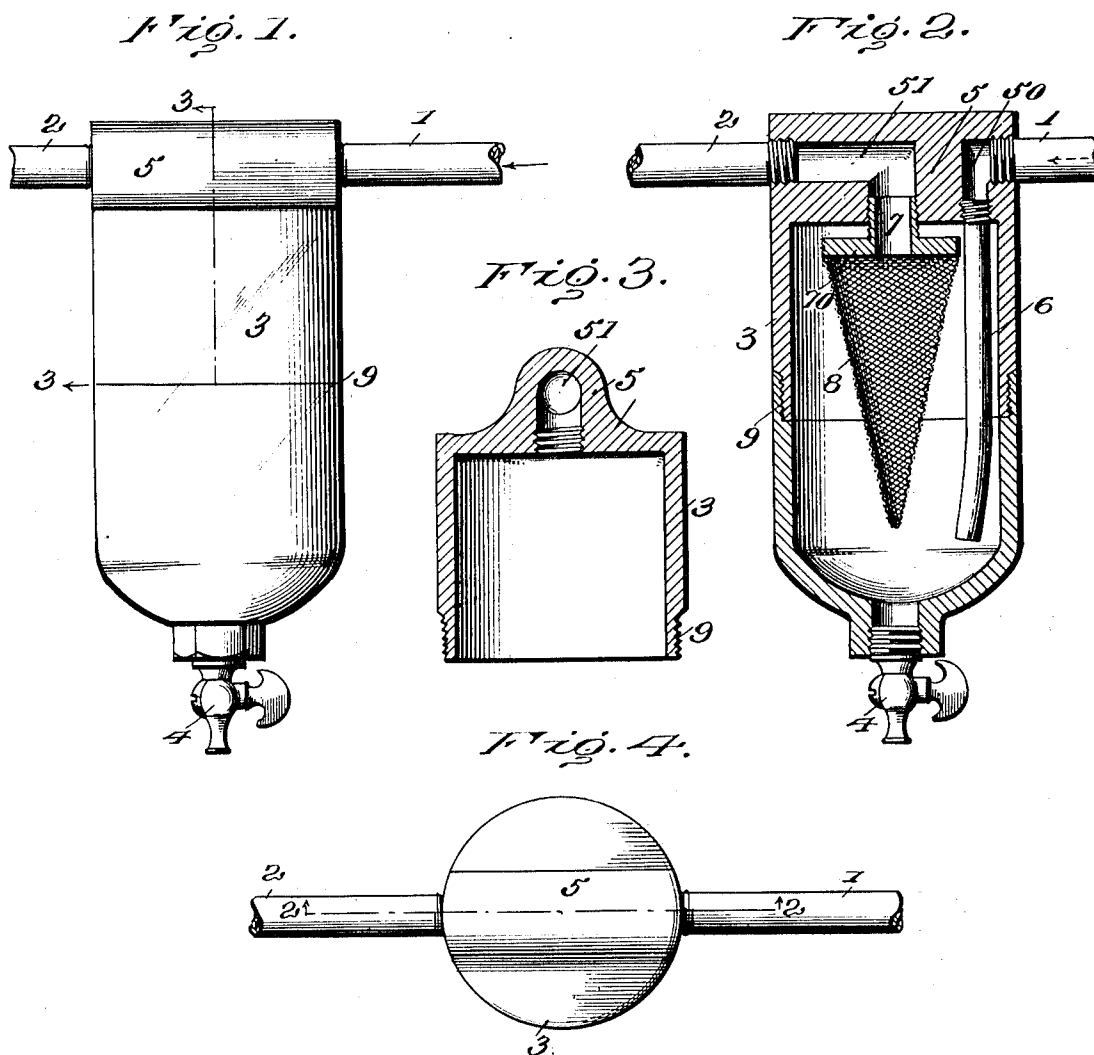


E. L. CRUM.
GASOLENE FILTER.
APPLICATION FILED JAN. 30, 1911.

1,040,283.

Patented Oct. 8, 1912.



Witnesses.

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UNITED STATES PATENT OFFICE.

EMANUEL L. CRUM, OF DECATUR, ILLINOIS.

GASOLENE-FILTER.

1,040,283.

Specification of Letters Patent.

Patented Oct. 8, 1912.

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To all whom it may concern:

Be it known that I, EMANUEL L. CRUM, a citizen of the United States, residing at Decatur, in the county of Macon and State of Illinois, have invented certain new and useful Improvements in Gasolene-Filters, of which the following is a specification.

This invention relates to certain improvements in filters for gasolene, and the like; and the objects and nature of my invention will be readily understood by those skilled in the art in the light of the following explanation of the accompanying drawings illustrating what I now consider to be my preferred embodiment from among formations and arrangements within the spirit and scope of my invention.

An object of the invention is to provide improved simple and effective means of durable and economical construction which can be readily coupled or included in the gasolene or other connection from the supply tank to the carbureter for removing water and sediment from the gasolene before it passes into the carbureter.

The invention consists in certain novel features of construction and combinations and arrangements of parts as more fully and particularly set forth hereinafter.

Referring to the accompanying drawings, Figure 1, is a side elevation of the filter showing the same coupled into and included in the gasolene supply pipe. Fig. 2, is a section taken in the plane of the line 2-2, Fig. 4. Fig. 3, is a detail section, parts being omitted, taken in the plane of the line 3-3, Fig. 1. Fig. 4, is a top plan view.

In the drawings, 1, is the supply pipe from the gasolene tank, or other source of supply, to the top of the filter of my invention, and 2, is the gasolene supply pipe for conveying the filtered gasolene from the top portion of the filter to the carbureter.

The filter of my invention comprises a vertically disposed shell or casing 3, having a reduced or downwardly tapered bottom or floor terminating in a downwardly extending drain cock 4, normally closed, and by means of which the water and sediment can be discharged from the interior of the shell or casing. The casing is provided with a top wall or head 5, formed with an upwardly extending transverse or diametrical enlargement at one end having a vertical duct opening through the end surface and threaded to receive the gasolene supply pipe

1, and opening downwardly into the chamber of the casing and threaded or otherwise formed to receive the reduced gasolene pipe 6, depending in the casing from the top wall or head 5, and having its lower open discharge end arranged in the lower portion of the chamber formed by the casing. The gasolene from the tank or other source of supply is thus delivered through the reduced pipe 6, into the lower portion of the interior of the casing. The top wall or head 5, of the casing is provided with a filtered gasolene outlet duct 51, separate from the duct 50, and at one end opening through the end face of the head 5, opposite the end receiving pipe 1, and threaded or otherwise formed, to receive the pipe 2. At its opposite end said duct 51, opens vertically and centrally through the bottom of the head 5, into the upper end of the chamber of the casing and is threaded to receive the hollow upwardly extending threaded nipple 7, opening downwardly and centrally through and carrying a horizontal disk or head 70. This head 70, carries the depending gasolene filtering body or material 8, through which gasolene must pass or percolate in traveling from the casing chamber to the hollow nipple 7, and therefrom through duct 51, into pipe 2.

The body 8, can be composed of any suitable gasolene filtering material, or material for filtering liquid of the nature of gasolene or for equivalent purposes. Chamois skin might be employed for this purpose, or very fine wire gauze permitting the free passage of the gasolene but preventing passage therethrough of water or sediment and acting to separate the water and sediment from the gasolene causing the water and sediment to collect on the outer or under surface of such screen or to drop therefrom to the bottom of the chamber for discharge through the cock 4. In the specific example illustrated, I show the filtering screen in the form of a depending cone and composed of fine wire gauze.

Gasolene is discharged through pipe 6 onto the bottom wall or floor of the casing below the filtering screen. The water and sediment in the gasolene tend to settle at the bottom of the casing. Gasolene rises and passes through the screen which separates therefrom water and sediment held in suspension thereby.

In the example illustrated, I show the

casing formed in two sections, an upper section and a lower section, detachably united intermediate the length of the casing by a screw threaded joint 9. This sectional formation. of the casing permits separation thereof for interior cleansing and for renewing the screen, and in the process of manufacture, permits application and securing of the pipe or tube 6, and the screen and the means for supporting and securing the same.

It is evident that various changes, and modifications might be resorted to in the forms, constructions and arrangements of the parts described without departing from the spirit and scope of my invention, and hence I do not wish to limit myself to the exact disclosure hereof.

What I claim is;—

1. A filter for gasoline and the like, comprising a casing having a chamber and a head forming the top wall of said chamber, said head having an inlet duct opening through its under face and an outlet duct opening through its under face, a conical screen depending in said chamber with its apex in the lower portion of the chamber, a nipple secured to said screen and from which the same is suspended, said nipple being removably secured to and depending from said head and having a passage placing the space inclosed by said screen in communication with said outlet duct, and a discharge pipe arranged in said chamber at the exterior of said screen and having its discharge end in the lower portion of the chamber, said pipe removably screwing into the top wall of said chamber in continuation of said inlet duct.
2. A filter for gasoline and the like, comprising a casing forming a chamber having a top outlet, a conical filtering screen depending in said chamber with the space inclosed by said screen in communication with said outlet, said screen provided with and carried by a top head having an upwardly extending nipple removably secured in the casing top in communication with said outlet and opening into the space within the

screen, said nipple carrying said head, and a discharge pipe extending down beside said screen and opening into the lower part of said chamber.

3. A filter for gasoline and the like, comprising a casing having a top head and an interior chamber below said head, said casing comprising transverse sections removably united to permit access to parts within said chamber, said head having an inlet duct opening through the under face thereof and an outlet duct opening through the under face thereof, a filtering screen depending in said chamber and provided with and carried by a head having an upwardly extending nipple removably secured in said casing head in continuation of said outlet duct, said nipple carrying said screen head and opening therethrough, and a discharge pipe removably secured in said casing head in continuation of said supply duct and depending in said chamber to a point approximately below said screen.

4. A filter for gasoline and the like, comprising a casing having a chamber and a head forming the top wall of said chamber, said casing comprising transverse sections removably united below said head to permit access to parts within said chamber, said head having an inlet duct opening through its under face and a separate outlet duct also opening through its under face, a filter screen depending in said casing and provided with a holder from which said screen depends and to which its upper end is fixed, said holder being removably secured in said head and having a passage placing the space inclosed by the screen in communication with said outlet duct, and a discharge pipe depending in continuation of said inlet duct and discharging in the lower portion of said chamber below said screen.

In testimony whereof I affix my signature in presence of two witnesses.

EMANUEL L. CRUM.

Witnesses:

FRANCIS R. WILEY,
E. WAYNE PONTING.