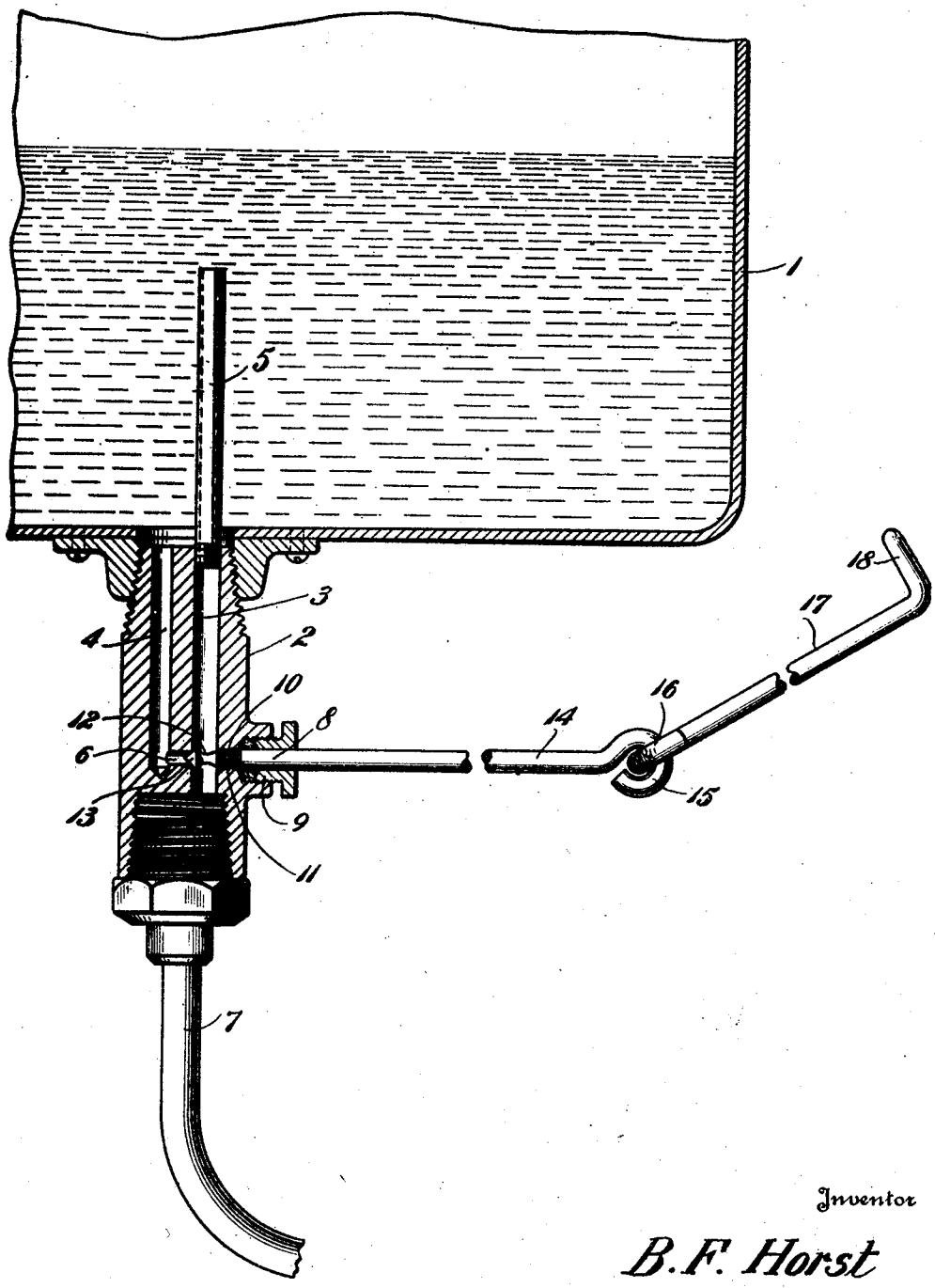
Aug. 4, 1925. 1,548,363

B. F. HORST

RESERVE GASOLINE VALVE

Filed April 21, 1924



Inventor

B. F. Horst

By Fraser and Bond

Attorneys

Patented Aug. 4, 1925. 1,548,363

UNITED STATES PATENT OFFICE.

BENJAMIN F. HORST, OF ORRVILLE, OHIO, ASSIGNOR TO THE WILL-BURT COMPANY, OF ORRVILLE, OHIO, A CORPORATION OF OHIO.

RESERVE-GASOLINE VALVE.

Application filed April 21, 1924. Serial No. 707,876.

To all whom it may concern:

Be it known that I, BENJAMIN F. HORST, a citizen of the United States, residing at Orrville, in the county of Wayne and State of Ohio, have invented certain new and useful Improvements in Reserve-Gasoline Valves, of which the following is a specification.

This invention relates to reserve gasoline valves for connection with the usual gasoline tank of an internal combustion engine, and the objects of the improvement are to provide a valve connected to the gasoline supply tank, and so constructed that a reserve supply of gasoline may be permitted to remain in the tank, this reserve supply being made available by operating the valve to permit the reserve supply of gasoline to be conveyed to the carburetor.

The above and other objects may be attained by providing a valve comprising a casing attached to the under side of the gasoline supply tank and having two substantially parallel passages, one of which communicates with the bottom of the tank and the other with a vertical tube extending a predetermined distance into the tank, both of said passages communicating with a single passage to the carburetor, a valve being provided which normally closes the passage communicating with the bottom of the tank and leaves the other passage normally open, said valve being arranged to be operated after the gasoline has reached the level of the top of said tube, whereby the reserve supply of gasoline will be fed through the passage communicating with the bottom of the tank.

The drawing is a vertical, sectional view through the improved valve, and a portion of the gasoline tank.

Similar numerals refer to similar parts throughout the drawing.

A portion of the lower part of a gasoline tank is shown at 1 and the housing of the improved valve is indicated at 2 and connected to the bottom of the tank in any usual manner.

A pair of parallel passages 3 and 4 are provided in the valve casing. A tube 5 communicates with the upper end of the passage 3 and extends any desired distance into the tank, the height of this tube determining the amount of the reserve supply of gasoline desired.

The passage 4 terminates at an intermediate point in the valve casing, the lower end of said passage communicating with the passage 3 by the reduced passage 6. A gasoline feed line 7 leading to the carburetor, communicates with the lower end of the passage 3.

A needle valve 8 is located through a stuffing box 9 in one side of the valve casing and provided with the threaded portion 10 engaging the internal screw threads 11 in the valve casing, a reduced neck portion 12 being normally located across the passage 3, the enlarged conical head 13 normally closing the transverse passage 6, cutting off communication between the passage 4 and the feed tube 7.

The needle valve may be provided with the elongated shank 14, provided at its outer end with an eye 15 engaged by the eye 16 of an angularly disposed, operating rod 17, which may be extended through the instrument board and provided with an operating handle 18.

In the normal position, the needle valve 8 is turned to close the port 6, cutting off communication between the passage 4 and the gasoline feed pipe. The passage 3 is always open, owing to the reduced neck 12 of the needle valve, the gasoline feeding from the tank down through the tube 5 and passage 3 to the gasoline feed pipe 7.

When the level of the gasoline reaches the top of the tube 5, it will be seen that no more gasoline will feed to the carburetor. This is a warning to the driver that he has only the reserve supply of gasoline left in his tank.

By turning the operating rod 17, the needle valve is withdrawn from engagement with the port 6, permitting the reserve supply of gasoline to feed from the bottom of the tank through the passage 4 and ports 6 to the lower end of the passage 3 and thence to the gasoline feed tube 7.

I claim:—

1. In combination with a gasoline tank, a valve including a casing connected to the under side of the tank and provided with a passage, a tube communicating with the upper end of the passage and extending upward into the tank, a feed pipe connected to the lower end of the passage, a second passage in the casing communicating with the tank at its upper end, the lower end of said second passage communicating with an

intermediate portion of the first passage, a threaded needle valve for normally closing the second passage and a rotatable operating rod connected to the needle valve by a universal joint.

2. In combination with a gasoline tank, a valve including a casing connected to the under side of the tank and provided with a passage, a tube communicating with the upper end of the passage and extending upward into the tank, a feed pipe connected to the lower end of the passage, a second passage in the casing communicating with the tank at its upper end, the lower end of said second passage communicating with an intermediate portion of the first passage, a threaded needle valve provided with a reduced neck portion normally located in the first passage, and an enlarged head normally closing the second passage and a rotatable operating rod connected to the needle valve by a universal joint.

In testimony that I claim the above, I have hereunto subscribed my name.

BENJAMIN F. HORST.