A. TEISSEIRE.

COMBINATION VALVE.

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1,315,054. Patented Sept. 2, 1919.

Fig. 1.

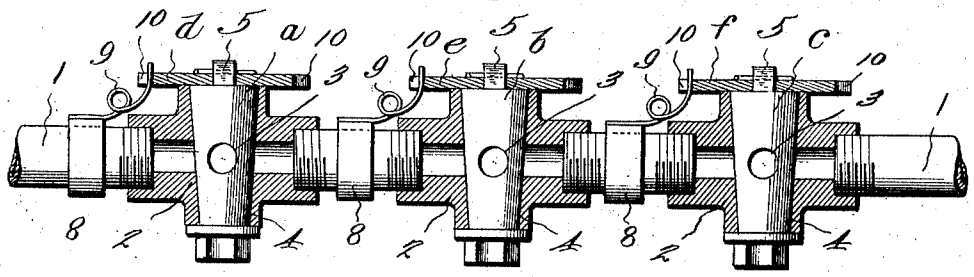
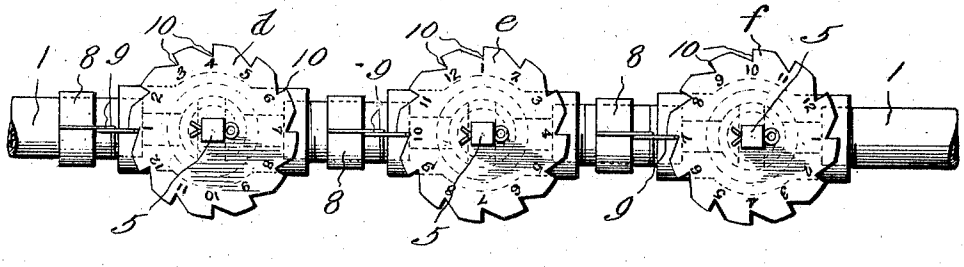


Fig. 2.



WITNESSES

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COMBINATION-VALVE.

1,315,054. Specification of Letters Patent. Patented Sept. 2, 1919.

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To all whom it may concern:

Be it known that I, ADRIAN TEISSEIRE, a citizen of the United States, residing at Belmont, in the county of San Mateo and State of California, have invented new and useful Improvements in Combination-Valves, of which the following is a specification.

This invention relates to combination valves, the structure being specially designed for use with the fuel feed pipe of a motor vehicle.

The object of the invention is to provide what may be termed a multiple valve or a series of valves each forming a controlling element for the feed of fuel through the feed pipe, and each valve being independently operable and embodying setting means by the instrumentality of which the several valves may be set to prevent or admit of the flow of fuel from a supply tank to an engine or the carbureter thereof.

One of the main objects of the present invention is to provide a valve structure embodying operating means in the form of dials combined with means for holding said dials in certain predetermined positions, enabling the operator of the machine to visually set the valves to admit of the flow of fuel to the engine, or to set said valves in the desired positions by audible means, thus enabling the valves to be set either in the day time or after night-fall without the use of artificial light of any kind.

With the above and other objects in view, the invention consists in the novel construction, combination and arrangement of parts, herein described, illustrated and claimed.

In the accompanying drawing:—

Figure 1 is a sectional view taken longitudinally of a fuel feed pipe, showing the relation of the combination valve thereto; and

Fig. 2 is a plan view of the same.

Referring to the drawings 1 designates a fuel feed pipe such as is now commonly employed in conjunction with internal combustion engines and which leads from the fuel supply to the engine or the carbureter thereof.

In carrying out the present invention I employ a plurality of valves *a*, *b*, and *c*. The body 2 of each valve is preferably of the tapered plug type and embodies a single port 3. The feed pipe 1 is formed with plug receiving holes or sockets 4 in which the body 2 of each plug is tightly fitted but adapted to turn. Exteriorly of the pipe 1, each valve body 2 has a squared or non-circular shank 5 upon which is placed a dial *d*, *e* or *f*, each dial being formed with a central opening 6 corresponding in shape with the shank 5 so as to prevent any relative turning movement between said dial and shank. Each valve body 2 is adapted to be turned by means of the respective dial mounted on the shank thereof and each dial is graduated or contains numbers or symbols as indicated at 7 to assist the operator in properly setting the dials and the valves controlled thereby.

In conjunction with each dial, I employ holding means which may be described as follows. Encircling the feed pipe 1 adjacent to each of the dials *d*, *e* and *f* is a collar 8 fastened to the pipe 1 in any suitable manner. Extending laterally from each collar 8 is a click spring 9 which is adapted to engage any one of a circular series of notches or recesses 10 in the periphery of the respective dial. The notches 10 are preferably V-shaped or flaring as shown so that the dial may be turned by overcoming the frictional resistance of the respective click spring 9.

From the foregoing description taken in connection with the accompanying drawings it will now be observed that by means of the construction described, the valves 2 may be set so that the ports 3 will be in line with the bore of the feed pipe 1 or they may be disarranged so as to be thrown out of alinement therewith, thereby arresting the flow of fuel from the supply tank or reservoir to the engine. By means of the dials *d*, *e* and *f*, the valves may be set to provide for the free flow of fuel through the pipe 1. In the day time, numerals or other symbols on the dials may be used in the operation of properly setting the valves *a*, *b* and *c*. At night time the click springs 9 afford audible means for enabling the operator to set the valves. By removing the dials from the squared shanks 6 of the valve bodies, said dials may be given a quarter or a half or a three-quarter turn so as to produce a new combination and this may be done as frequently as found necessary or expedient by the owner of the vehicle. At night time by counting the clicks of the springs 9, the operator of the car may accurately and quickly adjust the valves 2 to obtain the necessary feed of fuel through the pipe 1. Upon leaving his car, he may partially rotate the several dials and

thereby disarrange the combination and arrest the flow of fuel through said pipe.

I claim:

The combination with a fuel feed pipe, of a plurality of valves controlling said pipe and arranged in non-contiguous relation to each other, each valve being formed with a single port adapted to register with the bore of the feed pipe, a dial on each of said valves having notches in the periphery thereof and graduated for visual adjustment, a connection nipple having a collar and interposed between successive valves, a resilient arm terminally secured to said collar and having its opposite end vertically disposed and adapted to successively snap into the notches of the adjacent dial, whereby an audible click is provided for to enable the operator to adjust or set the valve in the dark, each of said resilient arms being formed to provide a vertically disposed coil at an appropriate point in its length.

In testimony whereof I affix my signature.

ADRIAN TEISSEIRE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."