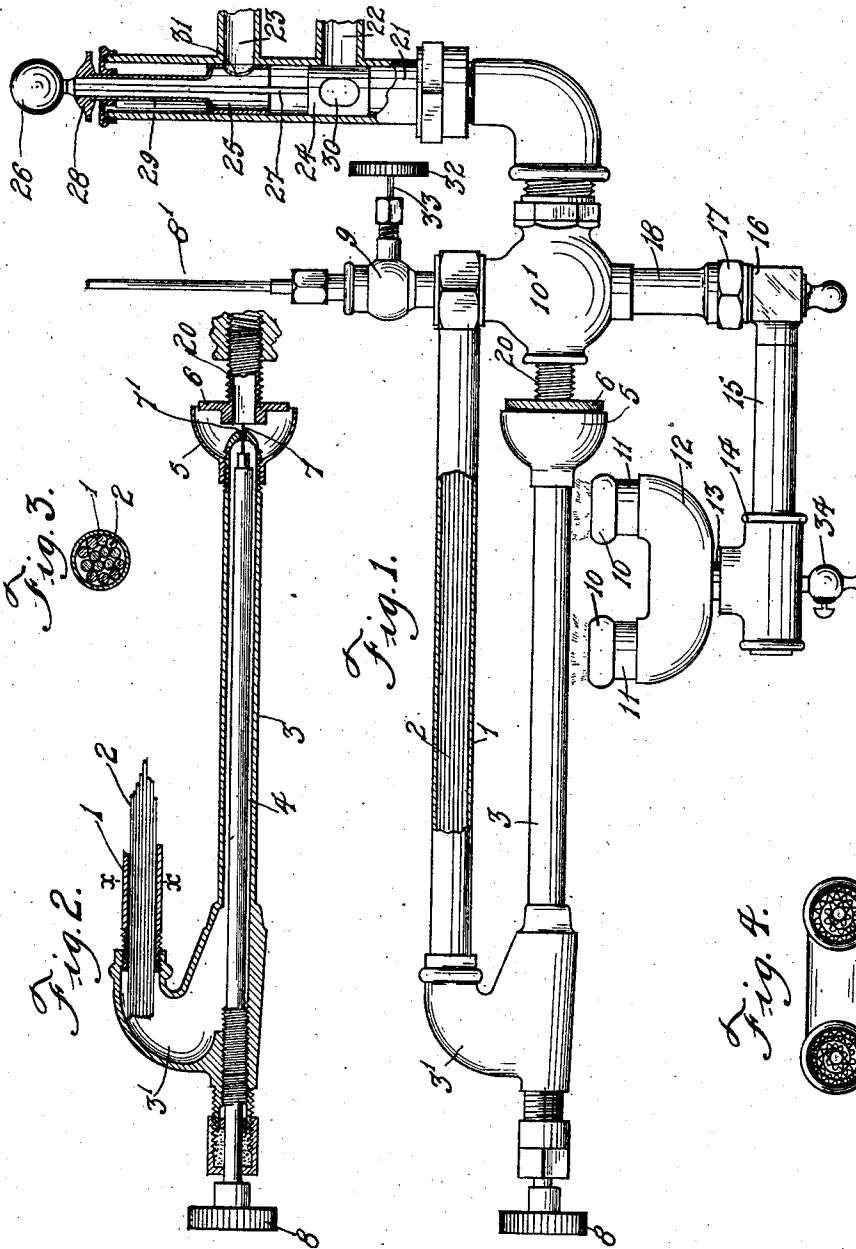


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VALVE.

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1,010,811.

Patented Dec. 5, 1911.



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354

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VALVE.

1,010,811.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, GUSTAV R. SEVERIN, a citizen of the United States, residing at Milwaukee, county of Milwaukee, and State of Wisconsin, have invented new and useful Improvements in Valves, of which the following is a specification.

My invention relates to valves which are used in connection with a pipe having a number of auxiliary pipes leading therefrom and the principal object of the invention is to construct the valve so that the stem of one valve passes through and beyond the stem of the valve above it, thus permitting a number of valves to be operated from a common point, each independent of the other.

This valve has been shown in connection with a gas generator in which the gas passes from the generator into a main pipe and from the main pipe into the auxiliary pipes which are opened and closed by means of the improved valve. It is of course understood that any number of auxiliary pipes may be used.

This invention is illustrated in the accompanying drawings wherein—

Figure 1 is a side view of the device with parts shown in section. Fig. 2 is a longitudinal section of a part of the device shown in Fig. 1. Fig. 3 is a transverse section on the line $x-x$ in Fig. 2. Fig. 4 is a top view of the burner shown in Fig. 1.

This type of valve has been shown in connection with a gas generator which comprises a separating tube 1, having a number of small wires 2 positioned therein to separate the liquid passing through the tube 1 into the vaporizing chamber 3 which is connected with the tube 1 by means of the V-shaped bend 3'. A valve stem 4 passes through the vaporizing chamber 3 and has a needle valve 7 formed at the inner end of the chamber 3. A hand screw 8 for operating the valve stem is mounted upon the outer end of the stem 4. An air inlet chamber 5 is mounted upon the end of the vaporizing chamber 3 and the supply of air is controlled by a disk valve 6 which is adjustably mounted in the gas chamber 10' by means of the threaded duct 20.

The liquid fuel from which the gas is formed is fed to the separating tube 1 by means of the pipe 8' which has the valve 9 connected therewith, and passes through the separating tube 1 into the vaporizing cham-

ber where it is heated and converted into gas, the gas passing through the valve part 7' into the duct 20 where it is mixed with air that enters the duct from the chamber 5 and then passes into the gas chamber 10'. The valve 9 is provided with the usual stem 33 and operating knob 32.

The liquid fuel is heated by means of a burner which is positioned beneath the vaporizing chamber and heats both the vaporizing chamber and the separating tube. The burner comprises the burner caps 10, which are connected with a V-shaped bend 12 by means of the nipples 11. The bend 12 is connected with a T-coupling 14 by the nipple 13, the coupling 14 being mounted upon a pipe 15 which is connected with a nipple 18 by means of an L-coupling 16 and union 17. The T-coupling 14 is provided with a pet cock 34 by means of which any moisture gathering in the coupling is drawn off. A portion of the gas which enters the gas chamber 10' passes through the nipple 18 and pipe 15 into the bend 12 and out through the burner caps 10 where it is ignited. The major portion of the gas passes from the gas chamber 10' into the pipe 21 from which the auxiliary pipes 22 and 23 lead.

A cylindrical valve 25 which has an opening 31 formed therein is mounted in the pipe 21 and is in alinement with the pipe 23 so that by turning the valve the opening 31 will be brought into and out of engagement with the pipe 23 thus opening and closing the pipe 23. A hollow sleeve 29 extends from the valve 25 through an opening in the cap which is mounted upon the pipe 21 and has a disk 28 secured to its outer end portion so that the valve 25 may be turned. A second cylindrical valve 24 which is provided with an opening 30 is mounted in the pipe 21 and is positioned so that by turning the valve the opening may brought into and out of engagement with the pipe 22 to open and close the same. A rod 27 extends from the valve 24 through sleeve 29 and has a knob 26 secured to its outer end so that the valve 24 may be turned.

It is, of course, understood that if more than two valves are used that the upper ones will each be provided with a sleeve fitting within the sleeve of the valve above it and with an operating disk 28 and the lowest valve provided with a rod and an operating knob 26. When it is desired to

open one of the valves the disk or knob is turned and the valve thus opened. By having the valves constructed as described the operating device is very compact since the disks and knob are positioned one upon the other and are within easy reach of the operator, the valves being all operated from a common point.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A main pipe, branch pipes leading therefrom, a sleeve positioned in said main pipe in alinement with one of said branch pipes and provided with an opening adapted to be brought into registry with said branch pipe, a tube leading from said sleeve to the end of said main pipe, means carried by said sleeve for rotating the same, a second sleeve positioned in said main pipe in alinement with the remaining one of said branch pipes and provided with an opening adapted to be brought into registry with said last mentioned branch pipe; a rod leading from said last mentioned sleeve and passing through said tube carried by said first mentioned sleeve and means for turning said rod.

2. In a generator, an outlet pipe, branch pipes leading from said pipe, a sleeve rotatably mounted in said first mentioned pipe in alinement with one of said branch pipes, and provided with an opening adapted to be brought into registry with said branch pipe to permit communication between said first mentioned pipe and branch pipe, a rod leading from said sleeve, an

operating handle mounted on said rod, a second sleeve mounted in said pipe, in alinement with the other of said branch pipes and provided with an opening adapted to be brought into registry therewith to permit communication between said first mentioned pipe and said last mentioned branch pipe, a tube leading from said last mentioned sleeve and surrounding said rod, and an operating disk mounted upon said tube whereby said last mentioned sleeve may be rotated.

3. A valve structure comprising a sleeve having an outlet opening, a tube leading from said sleeve, means for rotating said tube and sleeve, a second sleeve having an outlet opening, a rod leading from said second sleeve and passing through said tube, and means for rotating said rod and second sleeve.

4. A valve structure comprising a sleeve having an outlet opening, a tube leading from said sleeve, operating means carried by said tube for rotating said tube and sleeve, a second sleeve provided with an outlet opening, a rod extending from said second sleeve and passing through said tube, and operating means carried by the outer end of said rod for rotating said rod and second sleeve and resting upon the operating means carried by said tube.

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

GUSTAV R. SEVERIN.

Witnesses:

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O. R. ERWIN.