March 25, 1941. E. R. BOHAN 2,235,915

FIRE EXTINGUISHER

Filed July 20, 1940 2 Sheets-Sheet 1

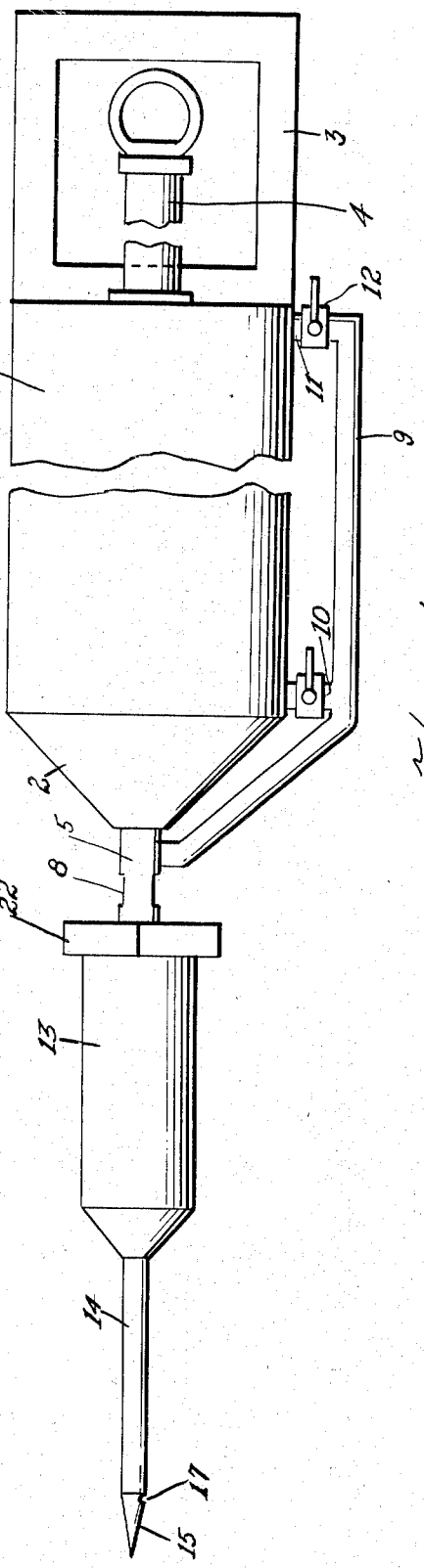


Fig. 1.



Fig. 5.

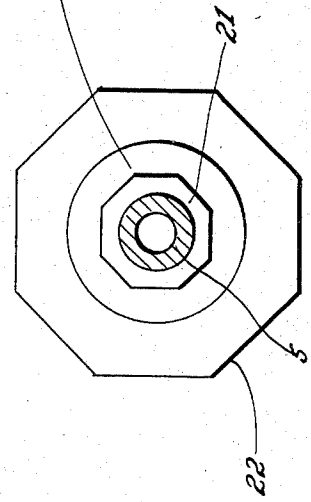


Fig. 6.

Inventor

Edward R. Bohan

By Clarence A. O'Brien

Attorney

March 25, 1941. E. R. BOHAN 2,235,915

FIRE EXTINGUISHER

Filed July 20, 1940 2 Sheets-Sheet 2

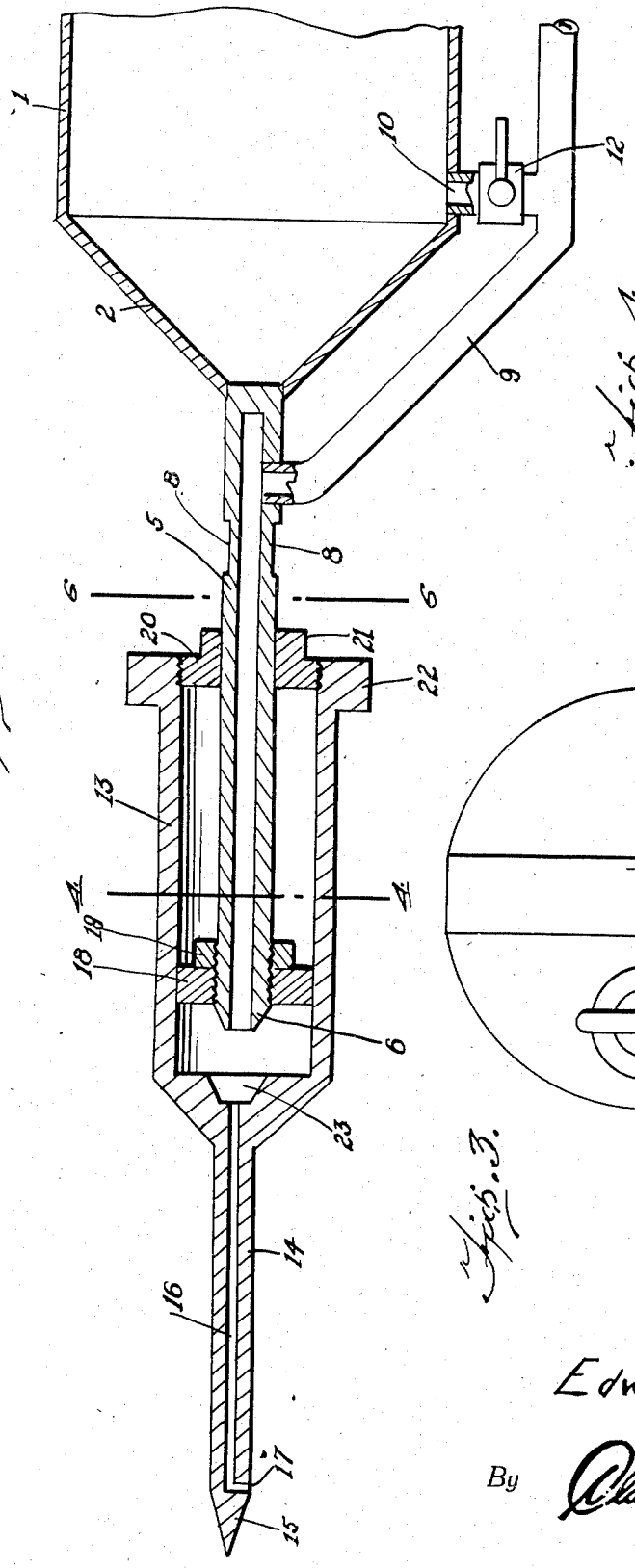


Fig. 2.

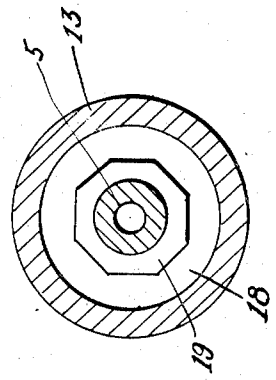


Fig. 4.

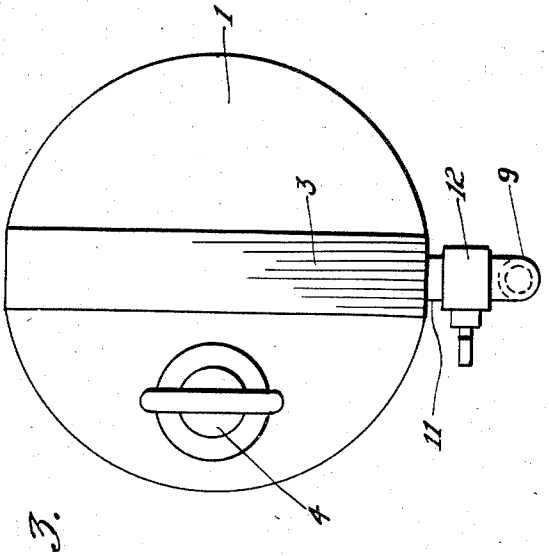


Fig. 3.

Inventor

Edward R. Bohan

By Clarence O'Brien

Attorney

Patented Mar. 25, 1941 2,235,915

UNITED STATES PATENT OFFICE

2,235,915

FIRE EXTINGUISHER

Edward R. Bohan, Sanborn, Iowa

Application July 20, 1940, Serial No. 346,611

4 Claims. (Cl. 169—31)

This invention relates to a fire extinguisher, the general object of the invention being to provide means whereby the liquid from the tank can be discharged between the walls of a building or in the wall, directly on the fire when the fire occurs between walls or in the wall.

Another object of the invention is to provide the nozzle with a point with a part sliding on a tube leading from the tank so that the tank can be used for forcing the pointed nozzle through a wall.

This invention also consists in certain other features of construction and in the combination and arrangement of the several parts to be hereinafter fully described, illustrated in the accompanying drawings and specifically pointed out in the appended claims.

In describing the invention in detail, reference will be had to the accompanying drawings wherein like characters denote like or corresponding parts throughout the several views, and in which—

Figure 1 is an elevational view of the improved fire extinguisher.

Figure 2 is a longitudinal sectional view therethrough with parts in elevation.

Figure 3 is a view looking toward the handle end of the device.

Figure 4 is a section on the line 4—4 of Figure 2.

Figure 5 is a view of the tubular member attached to the tank.

Figure 6 is a section on the line 6—6 of Figure 2.

In these views the numeral 1 indicates the tank of the extinguisher which is to hold any suitable liquid which will extinguish a fire, the tank being provided with a conical end 2 and a handle 3 is connected with the other end and a hand operated pump 4 is in communication with the tank and is carried by the end having the handle 3 thereon, this pump permitting air to be pumped into the tank to place the liquid therein under pressure. An elongated tube 5 has one end closed and connected with the conical end of the tank with the other end of the tube of conical shape as shown at 6 and this end of the tube is threaded as shown at 7. It is also provided with notches 8 forming wrench receiving parts. A tube 9 is connected with the bore of the tube 5 at a point spaced from the conical end of the tank and a branch tube 10 connects the tube 9 with the tank adjacent the conical end and a second branch tube 11 connects the tube 9 with the other end of the tank. Each of these tubes 10 and 11 contains a valve 12 so that either branch tube 10 or 11 can be opened or closed. The tube 10 is opened by its valve when the device is held in a vertical position with the conical end downward while the tube 11 is opened by its valve when the device is held in an inverted position with the conical end upward. A cylinder 13 has a nozzle forming tube 14 connected to one end thereof and this tube 14 terminates in a point 15 with the bore 16 of the tube 14 having a right angular extending outlet end 17 which passes through a side wall of the tube 14 adjacent the point 15. A piston 18 is threaded on the threaded part 7 of the tube 5 and is held in adjusted position by a nut 19, the conical end 6 projecting from the piston. A nut 20 is threaded in the inner end of the cylinder 13 and has a wrench receiving part 21 projecting from the cylinder and this end of the cylinder is formed with a non-circular enlargement 22. The tube 5 passes for sliding movement through the nut 20.

Thus it will be seen that when a fire occurs in a wall or between two walls the pointed end 15 of the nozzle 14 can be forced through a wall so that the liquid discharging from the device through the outlet end 17 can reach a fire occurring in the wall or between two walls and this is done by pressing the tank 1 toward the cylinder 13 when the point 15 has been placed against a part of the wall. As the tank is pressed upon the conical end 6 will enter a recess 23 at the outer end of the cylinder and which is of a shape to snugly receive the conical end 6 so that these parts act as valve means to cause the liquid flowing through the tube 5 to pass into the bore of the nozzle 14, without the liquid escaping into the cylinder 13. As pressure is applied to the tank the piston 18 firmly attached to the tube 5 will strike the outer end of the cylinder and thus act to force the point through the wall. If the device sticks in the wall when it is desired to remove it a few sharp blows of the nut 19 against the nut 20, by giving the tank a reciprocatory movement will pull the nozzle from the wall.

Thus it will be seen that fires occurring between walls or the like can be readily sprayed with the liquid from the tank without chopping a large hole in the wall.

It is thought from the foregoing description that the advantages and novel features of the invention will be readily apparent.

It is to be understood that changes may be made in the construction and in the combination and arrangement of the several parts provided that such changes fall within the scope of the appended claims.

Having described the invention, what is claimed as new is:

1. A fire extinguisher of the class described comprising a nozzle having a point at its outer end for enabling the nozzle to be forced through a wall, said nozzle having a discharge port adjacent the point, a cylinder connected with the rear end of the nozzle, a closure member for the rear end of the cylinder having a hole therein, a piston in the cylinder, a tubular piston rod connected with the piston and passing through the hole, a tank connected with the rear end of the piston rod and means including valve means for connecting the interior of the tank with the bore of the tubular piston rod, said bore opening out at the front of the piston.

2. A fire extinguisher of the class described comprising a cylinder, a tubular nozzle connected to the front end thereof, the nozzle ending in a point, the bore of the nozzle having an outlet end passing through a side wall of the nozzle adjacent its pointed end, a closure member in the rear end of the cylinder, a piston slidably arranged in the cylinder, a tube connected with the piston and slidingly passing through the closure member, said tube having a projecting part at the piston of conical shape and the nozzle end of the cylinder having a recess therein for receiving the conical end of the tube, a tank having one end connected with the rear end of the tube and means for connecting the tank with the bore of the tube.

3. A fire extinguisher of the class described comprising a cylinder, a tubular nozzle connected to the front end thereof, the nozzle ending in a point, the bore of the nozzle having an outlet end passing through a side wall of the nozzle adjacent its pointed end, a closure member in the rear end of the cylinder, a piston slidably arranged in the cylinder, a tube connected with the piston and slidingly passing through the closure member, said tube having a projecting part at the piston of conical shape and the nozzle end of the cylinder having a recess therein for receiving the conical end of the tube, a tank having one end connected with the rear end of the tube and means for connecting the tank with the bore of the tube, said means including a tube having one end connected with the bore of the first-mentioned tube, branch tubes connecting the second tube with both ends of the tank, and a valve in each short tube.

4. A fire extinguisher of the class described comprising a cylinder, a tubular nozzle connected to the front end thereof, the nozzle ending in a point, the bore of the nozzle having an outlet end passing through a side wall of the nozzle adjacent its pointed end, a closure member in the rear end of the cylinder, a piston slidably arranged in the cylinder, a tube connected with the piston and slidingly passing through the closure member, said tube having a projecting part at the piston of conical shape and the nozzle end of the cylinder having a recess therein for receiving the conical end of the tube, a tank having one end connected with the rear end of the tube, means for connecting the tank with the bore of the tube, and a pump connected with the tank for forcing air into the tank.

EDWARD R. BOHAN.