

L. D. FULLER.
FIRE EXTINGUISHER.

Patented Dec. 22, 1891.

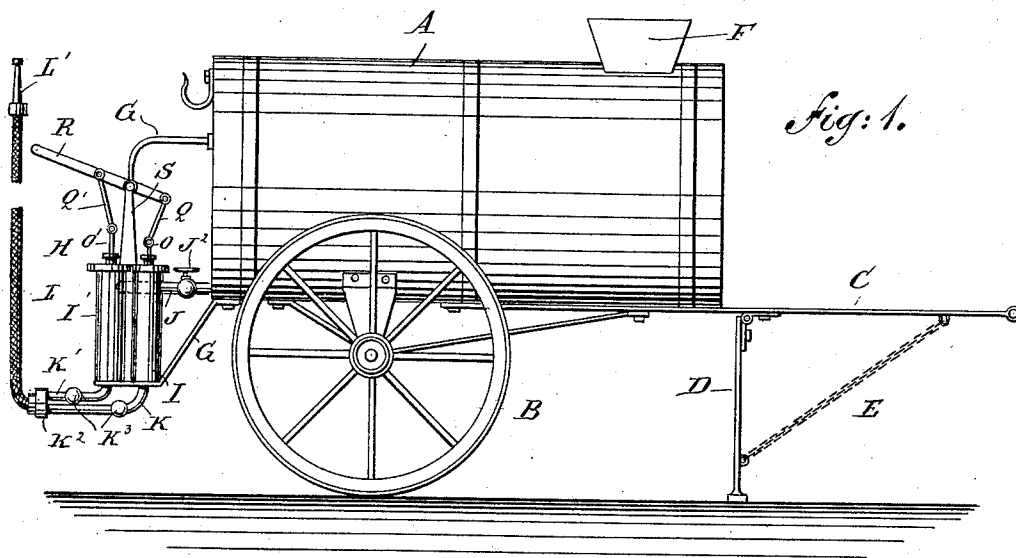
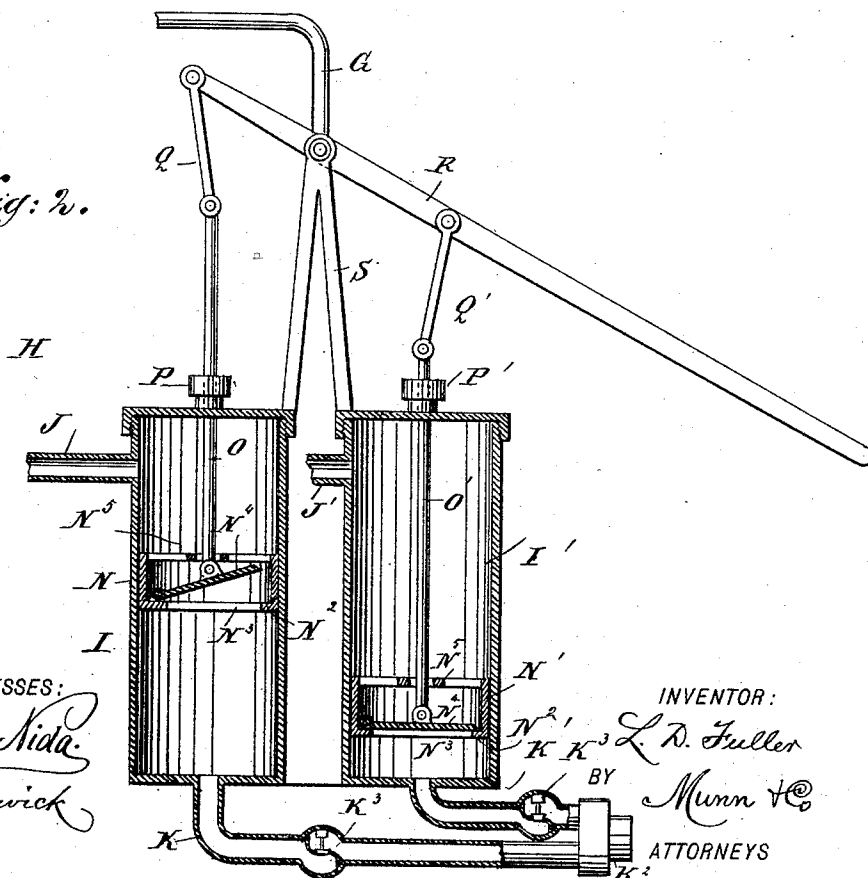


Fig: 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

LAFAYETTE D. FULLER, OF MUSCOGEE, INDIAN TERRITORY.

FIRE-EXTINGUISHER.

SPECIFICATION forming part of Letters Patent No. 465,757, dated December 22, 1891.

Application filed January 26, 1891. Serial No. 379,127. (No model.)

To all whom it may concern:

Be it known that I, LAFAYETTE D. FULLER, of Muscogee, in the Creek Nation and Indian Territory, have invented a new and Improved Fire-Extinguisher, of which the following is a full, clear, and exact description.

The invention relates to chemical fire-engines; and its object is to provide a new and improved fire-extinguisher which is simple and durable in construction, very effective in operation, and requires but little force to throw a stream a considerable distance.

The invention consists of certain parts and details and combinations of the same, as will be hereinafter fully described, and then pointed out in the claim.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in both the figures.

Figure 1 is a side elevation of the improvement, and Fig. 2 is an enlarged sectional side elevation of the pump.

The improved fire-extinguisher is provided with a suitably-constructed tank A, made portable and being preferably mounted on two wheels B, arranged near the rear end of the tank, the front end of the latter being provided with a pole C, on which is hinged a rest D for supporting the tank A in a horizontal position when the device is to be used. A stay-chain E connects the rest D with the front end of the pole C. On top of the tank A is arranged a funnel F for conveniently filling the tank with fire-extinguishing fluid. On the rear end of the tank A are secured brackets G, supporting a pump H, provided with two barrels I and I', closed on top and bottom and connected near their upper ends by pipes J and J', respectively, with the tank A, so that the extinguishing-fluid in the tank can readily pass into the said barrels I and I'. The bottoms of the barrels I and I' are connected with discharge-pipes K and K', respectively, terminating in a common discharge K², adapted to be connected with the hose L, provided in the usual manner with the nozzle L'. Each of the discharge-pipes K and K' is provided with a check-valve K³, as is plainly indicated in Fig. 2.

In the barrels I and I' are fitted to slide plungers N and N', each provided with a bot-

tom N², containing an opening N³, adapted to be closed by a valve N⁴, hinged at one end to the top of the bottom N² and having its upward motion limited by a cross or spider N⁵, secured to or forming the top of the plunger N or N', respectively. Each valve N⁴ of the two plungers N and N' is pivotally connected at or near its middle with a plunger-rod O or O', respectively, extending upwardly through a suitable stuffing-box P or P', respectively, arranged on the top cap of the barrel I or I', respectively. The outer ends of the plunger-rods O and O' are pivotally connected by links Q and Q', respectively, with the lever R, fulcrumed on a bracket S, secured to and projecting from the upper ends of the barrels I and I'. The pipes J and J' are each provided with a valve J² (see Fig. 1) for disconnecting the tank A from the barrels I and I'.

The operation is as follows: The tank A is charged with a suitable fire-extinguishing fluid, and when it is desired to force this fluid onto a fire the valves J² are opened, so that the fluid can flow from the tank A into the upper ends of the barrels I and I'. The operator or operators now actuate the lever R so that one plunger N or N' moves up while the other moves down in the barrels I and I', respectively. When the plunger is on the upstroke, the pull exerted by the respective plunger-rod O or O' causes an upward swinging of the respective valve N⁴, so that the opening N³ in the bottom of the plunger is uncovered and the fire-extinguishing fluid in the top of the respective barrel I or I' can flow through the plunger into the lower part of the barrel and into the respective discharge-pipe K or K'. When the plunger is on its downstroke, the respective plunger-rod O or O' forces the valve N⁴ down onto its seat in the bottom N², so as to close the opening N³, and the plunger on its downward stroke now exerts a pressure on the fluid in the lower part of the respective barrel, so that this fluid is forced through the respective discharge-pipe K or K', past the check-valve K³ into the common discharge K² and into the hose L, and out through the nozzle L' onto the fire to be extinguished. As one plunger is always on the downstroke as long as the lever R is operative, a continuous stream of fire-extinguishing fluid is forced through the nozzle of

the hose L. It will be seen that the plunger rod O or O' opens and closes the respective valve N⁴ and by the latter actuates the entire plunger, it being understood that when the valve N⁴ is in an open position, as shown to the left in Fig. 2, its upper end rests against the under side of the spider N⁵. By this special construction of the pump the usual air-chamber is entirely dispensed with.

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

15 The combination, with the wheeled tank, of the cylinders mounted at the rear end thereof, of pipes leading from the bottom of the tank into the upper ends of the cylinders, pipes K K', leading from the lower ends of the cylinders and having check-valves and a discharge-

pipe common to both of the pipes K K', the hollow plungers N N' within the cylinders, each having an opening N³ in its bottom, a spider or cross-piece across its upper end, a downward-closing valve N⁴, hinged at its edge within the plunger to close over the opening N³ and limited in its upward movement by said spider or cross-piece, the rods O O', extending down into the cylinders and pivoted to the upper faces of the respective valves N⁴, the operating-lever R, and links connecting the rods with the said lever, substantially as shown and described.

LAFAYETTE D. FULLER.

Witnesses:

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