No. 731,718. PATENTED JUNE 23, 1903.

E. F. STECK.

FIRE APPARATUS.

APPLICATION FILED OCT. 4, 1901.

NO MODEL. 3 SHEETS—SHEET 1.

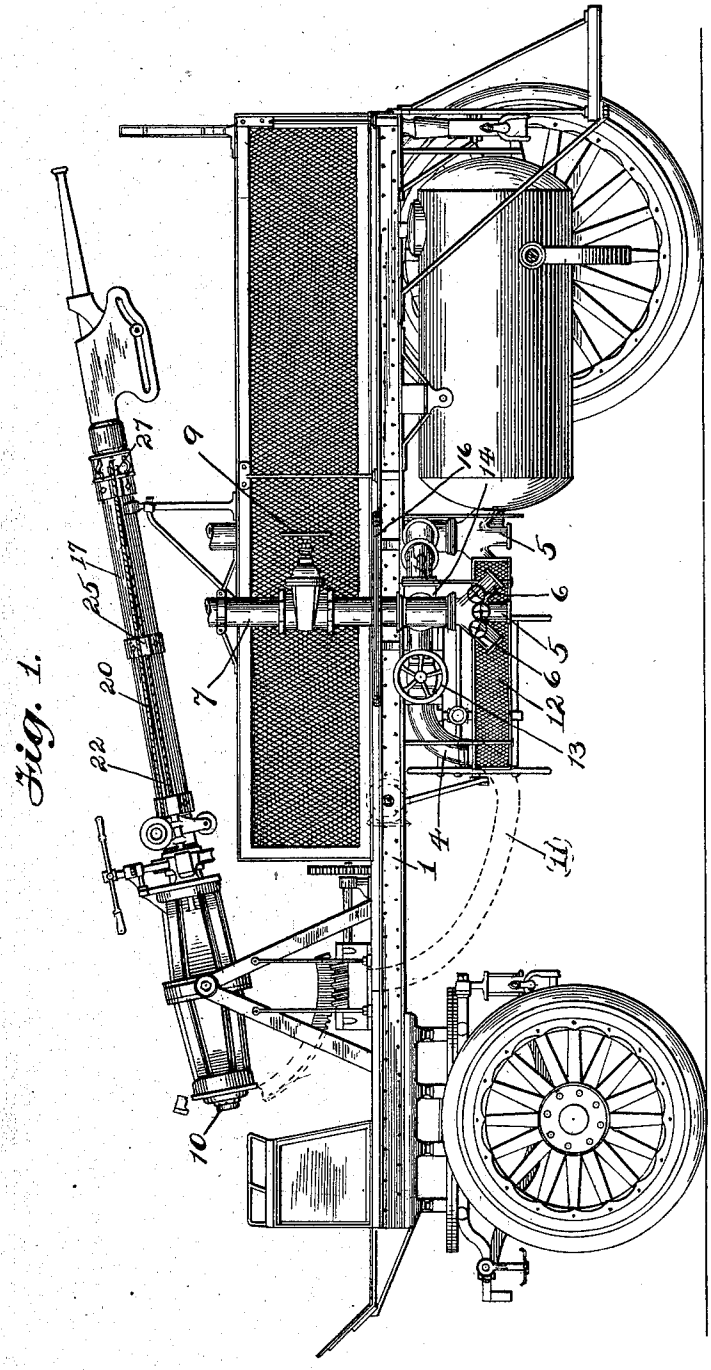


Fig. 1.

Witnesses:
J. B. Weir
Ira C. Perry

Inventor:
Edmund F. Steck
by Ellis & Hopkins
Attys

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

No. 731,718. PATENTED JUNE 23, 1903.

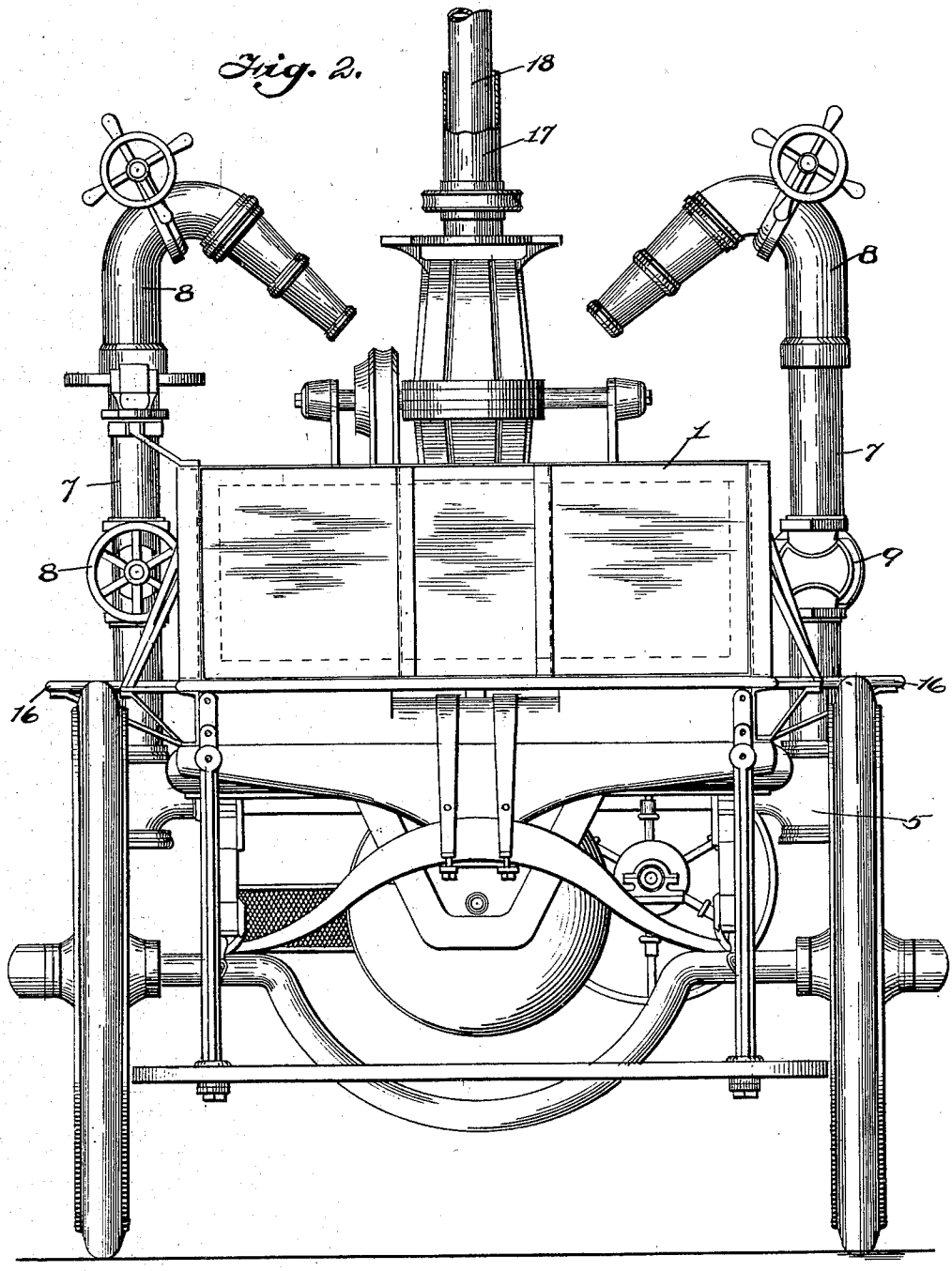
E. F. STECK.

FIRE APPARATUS.

APPLICATION FILED OCT. 4, 1901.

NO MODEL. 3 SHEETS—SHEET 2.

Fig. 2.



Witnesses:
J. B. Weir
Ira D. Perry

Inventor:
Ernst F. Steck
by Eckstatt & Hopkins
Attys

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

No. 731,718. PATENTED JUNE 23, 1903.

E. F. STECK.

FIRE APPARATUS.

APPLICATION FILED OCT. 4, 1901.

NO MODEL. 3 SHEETS—SHEET 3.

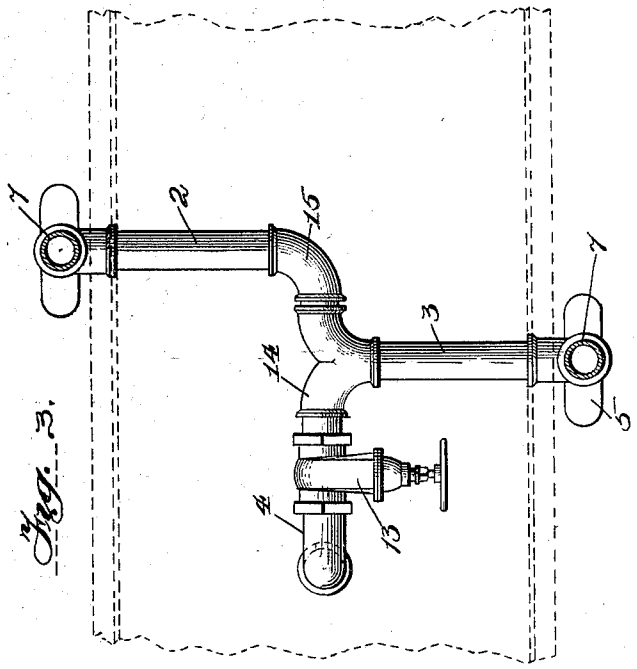


Fig. 3.

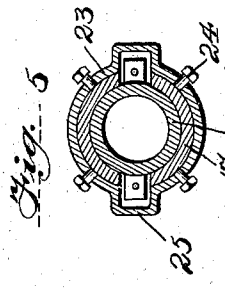


Fig. 5

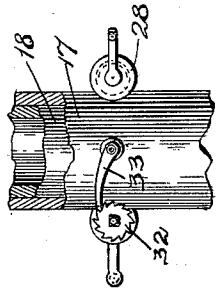


Fig. 6.

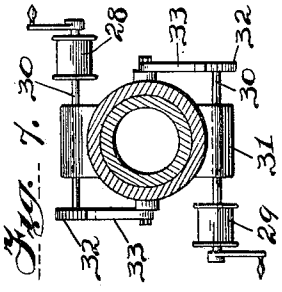


Fig. 7.

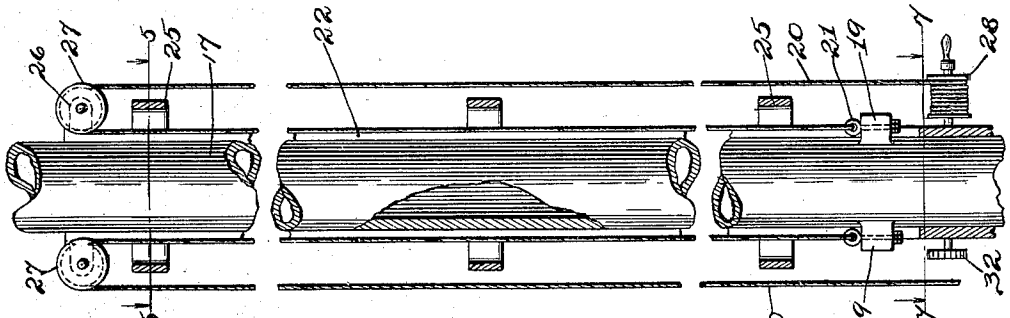


Fig. 4.

Witnesses:
J. B. Weir
Ira C. Perry

Inventor:
Ernest F. Steck
by Elliott & Hopkins
Attys

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

No. 731,718. Patented June 23, 1903.

UNITED STATES PATENT OFFICE.

ERNST F. STECK, OF CHICAGO, ILLINOIS, ASSIGNOR TO INTERNATIONAL FIRE ENGINE COMPANY, OF CHICAGO, ILLINOIS, AND NEW YORK, N. Y., A CORPORATION OF NEW JERSEY.

FIRE APPARATUS.

SPECIFICATION forming part of Letters Patent No. 731,718, dated June 23, 1903.

Application filed October 4, 1901. Serial No. 77,546. (No model.)

To all whom it may concern:

Be it known that I, ERNST F. STECK, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Fire Apparatus, of which the following is a full, clear, and exact specification.

My invention relates to that class of fire apparatus designed to carry a major nozzle, variously termed "water-towers" or "turrets," adapted to receive the supply from one or more steamers or engines, whereby their combined force may be concentrated in a single stream; and my invention has for its primary object to provide a portable apparatus with means whereby a plurality of nozzles, such as a plurality of water-towers or turrets, or both or either of them, may receive the supply from either a single or from a plurality of steamers or engines independently of each other or whereby any one or all of a plurality of such nozzles may be played from a common supply, as desired.

With these ends in view my invention consists in certain features of novelty in the construction, combination, and arrangement of parts by which the said objects and certain other objects hereinafter appearing are attained, all as fully described with reference to the accompanying drawings and more particularly pointed out in the claims.

In the said drawings, Figure 1 is a side elevation of my improved fire apparatus, partly broken away. Fig. 2 is an enlarged rear view thereof, showing the tower elevated and partly broken away. Fig. 3 is a plan view of the turret and tower connections, showing the body of the vehicle in dotted lines. Fig. 4 is a side elevation of a part of the tower, partly sectioned and partly broken away, illustrating the mechanism for elevating it. Fig. 5 is a transverse section thereof, taken on the line 5 5, Fig. 4. Fig. 6 is a detail side elevation showing the windlass mechanism; and Fig. 7 is a transverse section thereof, taken on the line 7 7, Fig. 4.

1 is a truck or vehicle which may be of any suitable construction and utilized also as a hose-cart and a vehicle for carrying the firemen and various devices or apparatus used in extinguishing fires, as well as a vehicle for the plurality of nozzles, turrets, or towers in which my invention is embodied. In applying my invention to a vehicle of this character I secure to the frame thereof or to any other suitable part, and preferably below the floor of the vehicle-body, a three-way pipe (better shown in Fig. 3) comprising three sections or branches 2 3 4, and on each side of the vehicle, at the outer end of each of the branches 2 3, is attached a siamese 5 or other suitable device whereby the discharge from one or more steamers or engines may be connected to each of the branches 2 3. In the example of the invention shown in the drawings three sources of supply or three different engines or steamers may be connected to each siamese independently of each other, and either of the steamers may be disconnected without interfering with the operation of the other, each branch of the siamese having the usual check-valve 6 for preventing retrograde movement. Each of the siamese 5 is also connected with an upwardly-extending pipe 7, which carries the water to a turret 8, projecting above the side of the vehicle 1, one of these turrets being arranged on each side of the vehicle and both being connected with both of the siamese, so that either may be utilized for throwing the stream coming from either or both siamese. When it is desired to discontinue the use of one of the turrets, that one may be shut off by means of a gate-valve or other suitable valve 9, located in each of the pipes 7.

The outer end of the branch 4 is adapted to be connected to the lower end 10 of a water-tower, which is also carried on the vehicle 1 and held in place and operated in any suitable manner. This connection between the branch 4 and end 10 of the tower is preferably effected by means of a flexible hose 11, which when not in use may be carried in a suitable basket 12 on the under side of the vehicle, the end of branch 4 being curved downwardly, as shown in Fig. 1, so that the hose-section 11 may hang in an easy curve with its upper end attached to the end 10 of the tower when the latter is raised to its perpendicular position, according to the usual

method of use. The branch 4 is also provided with a gate-valve or other suitable means for closing it, so that when desired either or both of the turrets may be utilized independently of the tower.

The branch 3 is connected to the branch 4 by a Y 14, which is also connected to the branch 2 by elbow 15, thus throwing the branch 2 out of direct line with branch 3 and preventing the stream which passes inwardly through branch 3 from directly opposing the incoming stream along branch 2, whereby the two incoming streams along branches 2 3, respectively, will meet in the Y at an angle to each other and continue as one resultant force outwardly through the branch 4 to the tower, the water in the branches 2 3 being dead when the gate 13 is closed unless the turret on that side opposite the siamese to which the steamer is connected be alone utilized, and then there will be but one current passing in one direction, as will be understood. These turrets, together with their operating mechanism and controlling-valves 9, are located on the sides of the vehicle-body adjacent to the side platforms or running-boards 16 in convenient positions to be manipulated by firemen standing either inside or outside the body, so that either may be used for playing on a fire on either side of the vehicle, as well as to the front or to the rear, or both may be turned in the same direction at once, as the exigencies of the case require.

With a fire apparatus thus constructed it will be seen that either of the turrets may be utilized independently of the other, regardless of the side to which the steamer or the supply is connected, and it is also apparent that the water-tower may be utilized in connection with or independently of either or both of the turrets without necessitating any change in the connection of the steamer or steamers with the apparatus, and these are features of considerable importance, because it is frequently the case that a change in the character of the fire or the breaking out of a fire in another quarter will make it necessary to detach one or more of the steamers from the turrets or the water-tower for use elsewhere, while it is also necessary to maintain one or more of the turrets or the water-tower in operation.

The water-tower utilized in my improved apparatus may be of the usual or any suitable construction, but preferably of the form shown in the drawings, which consists of a number of telescoped pipes or tubes 17 18, fitted together in the usual way, so as to be reduced to a length approximately within the length of the vehicle-body, and the inner tube or pipe 18 at or near its lower end is provided with a pair of lugs 19, to which the lower inner ends of a pair of cables 20 are attached by means of eyebolts 21 or other suitable devices. The inner ends of these cables 20 pass upwardly along longitudinal slots 22, formed in the outer pipe-section 17, and which slots provide for the vertical movement of the lugs 19, while also constituting a guide for said lugs for holding the inner pipe against independent rotation within the outer one. The outer pipe being thus weakened by the side slots 22, it is desirable to brace or reinforce it at short intervals by means of collars or bands 23, secured thereto by screws 24 or other suitable devices and having loops or enlargements 25 on opposite sides, through which the cables 20 and lugs 19 pass during the reciprocating movement of the inner pipe member 18. The upper end of the outer pipe member 17 is provided with a cross-tree 26 or other suitable support for a pair of sheaves 27, over which the cables 20 pass and are brought downwardly to winding-drums or windlasses 28 29, respectively, the shaft 30 of each windlass being journaled in boss 31 on the side of pipe-section 17 or other suitable support, and each shaft having a ratchet 32, engaged by pawl 33, which holds the inner section at the elevation to which it is placed by the winding of the cables. The construction of the water-tower in other respects and the mechanism for operating the same may be of the usual or any suitable form.

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

1. In an apparatus for the purpose described, the combination of a vehicle, turrets mounted on opposite sides thereof, a connection between said turrets, connections for said turrets respectively, whereby they may be connected with independent sources of supply, means for shutting off either of said turrets independently of the other, a water-tower, and a valved branch connection communicating with the connection between said turrets and the water-tower, substantially as set forth.

2. In an apparatus for the purpose described, the combination of a vehicle, turrets mounted on opposite sides thereof, a water-tower carried by said vehicle, branch connections between said turrets arranged out of direct line with each other, and a third branch connection for said water-tower communicating with the first said branch connections, and means for shutting off said turrets and water-tower independently of each other, substantially as set forth.

3. In an apparatus for the purpose described, the combination of a vehicle, a pair of turrets mounted on opposite sides thereof, a siamese connected with each of said turrets, a connection between said siamese, valves located in each of said turrets between the discharge-nozzle thereof and said connection, a water-tower carried by said vehicle and a valved connection leading from the aforesaid connection and adapted to be connected to said water-tower, substantially as set forth.

4. In an apparatus for the purpose described, the combination of a vehicle, a pair

of turrets mounted on opposite sides thereof diagonally opposite each other, a water-tower, the connection or branch 3, the Y 14 connected to the end thereof, the branch 2 connected to one branch of said Y and to the other turret, and the valved branch 4 connected to the other branch of the Y and to said tower, said turrets having valves located between their discharge-nozzles and the branches 2 3, substantially as set forth.

5. In an apparatus for the purpose described, the combination of two telescoped pipe-sections, the outer one of which is provided with longitudinal side slots, lugs secured to the inner section and running in said slots, respectively, sheaves supported on said outer sections, cables secured to said lugs and passing over said sheaves, means for winding said cables and moving the inner section with reference to the outer section, and a reinforcing-band encircling said outer section and having the loops 25 for the passage of the cables and lugs, substantially as set forth.

ERNST F. STECK.

Witnesses:
F. A. HOPKINS,
W. D. CROSS.