

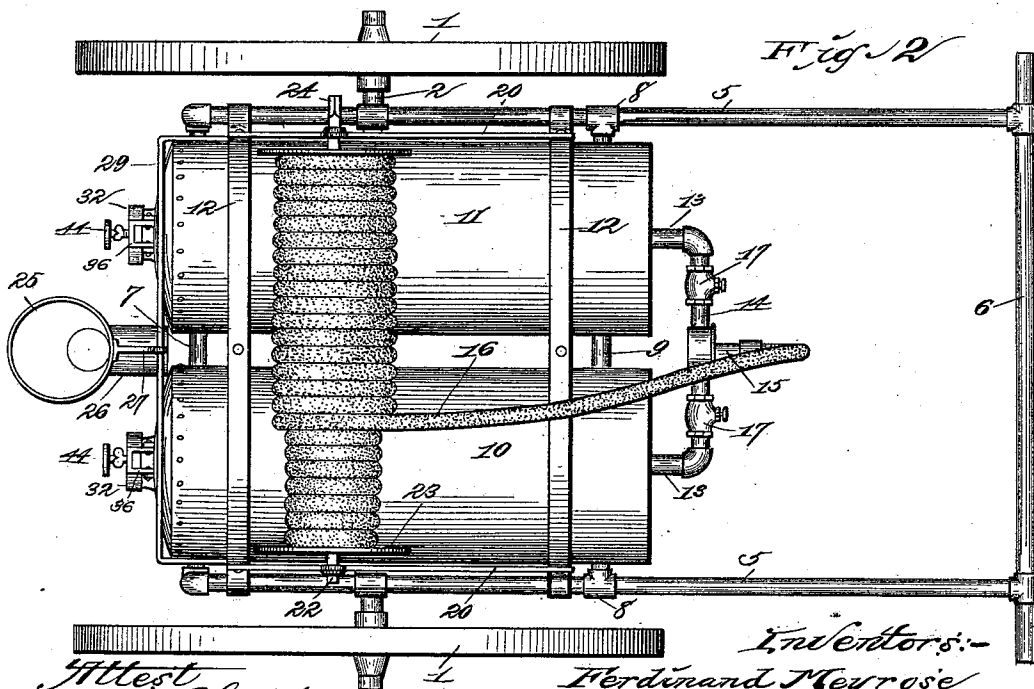
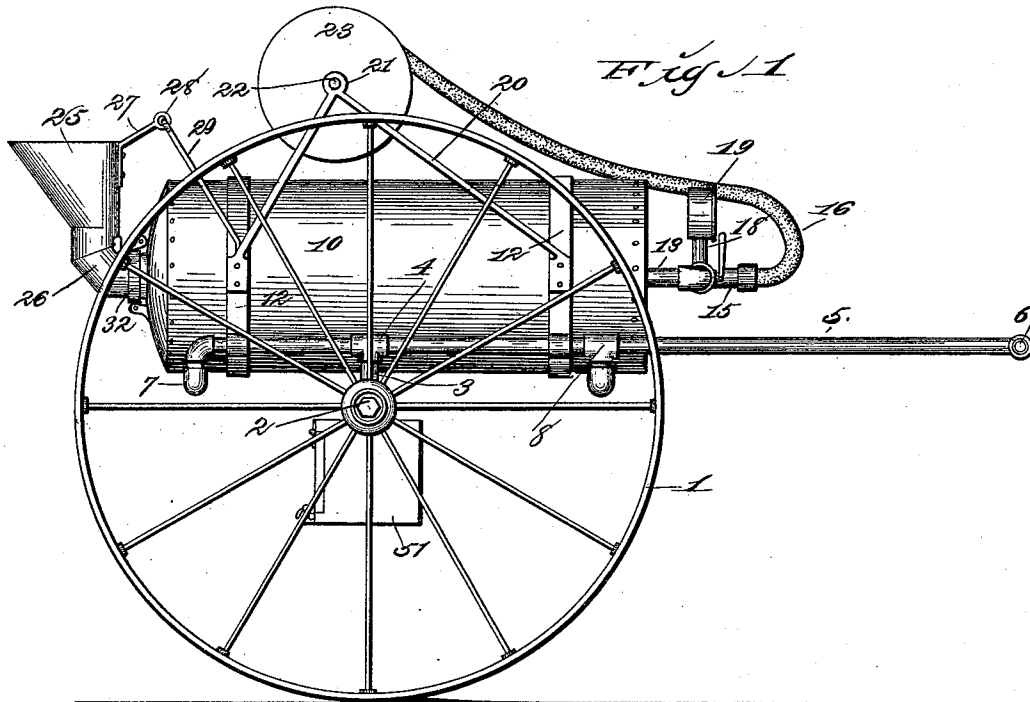
(No Model.)

2 Sheets—Sheet 1.

F. MEYROSE & J. L. BRADLEY.
FIRE EXTINGUISHER.

No. 534,480.

Patented Feb. 19, 1895.



Attest
M. P. Smith,
John L. Tunisow,
Inventors:
Ferdinand Meyrose
and Jay L. Bradley,
by Higdon & Higdon Longan, Attys.

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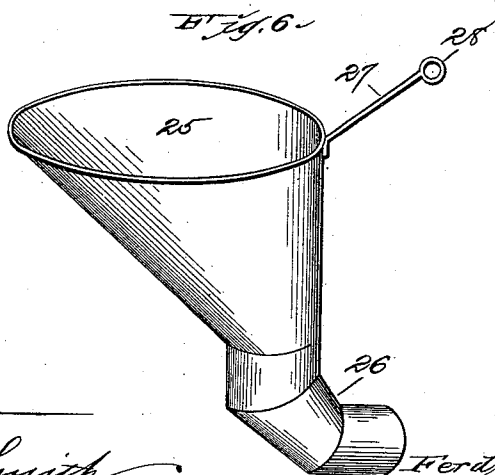
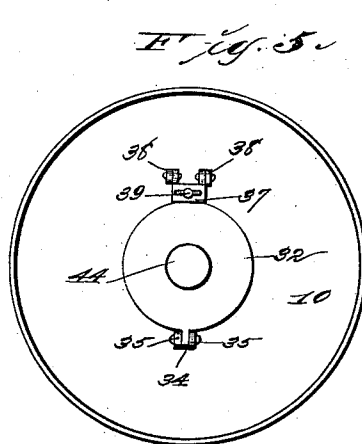
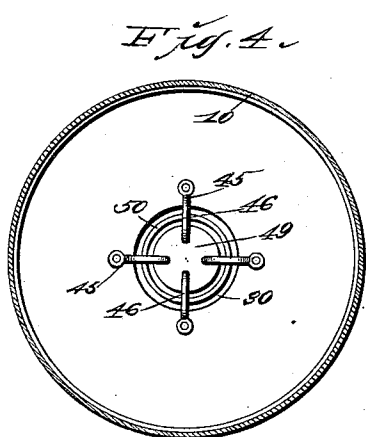
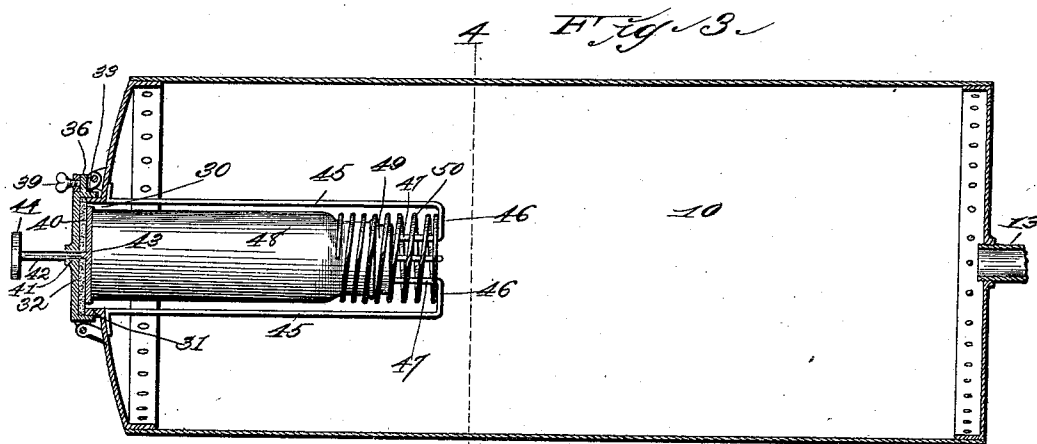
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John L. Munison

Inventors
Ferdinand Meyrose,
Jay L. Bradley.
by Higdon & Higdon & Longan
Attys.

UNITED STATES PATENT OFFICE.

FERDINAND MEYROSE AND JAY L. BRADLEY, OF ST. LOUIS, MISSOURI.

FIRE-EXTINGUISHER.

SPECIFICATION forming part of Letters Patent No. 534,480, dated February 19, 1895.

Application filed December 10, 1894. Serial No. 531,416, (No model.)

To all whom it may concern:

Be it known that we, FERDINAND MEYROSE and JAY L. BRADLEY, of the city of St. Louis, State of Missouri, have invented certain new and useful Improvements in Fire-Extinguishers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

Our invention relates to a fire extinguisher and consists in a plurality of tanks carried by a frame work that is mounted upon wheels, a reel and hose mounted upon the tanks, chemical-containing receptacles located within the tanks, means for breaking the seal of said chemical-containing receptacles, and various other novel features of construction, combination and arrangement of parts, hereinafter described and claimed.

The object of our invention is to construct a fire extinguisher of this class that can be easily and expeditiously moved from one place to another, is quickly filled, is simple and inexpensive in construction and efficient in use.

In the drawings: Figure 1 is a side elevation of a fire extinguisher constructed in accordance with our invention. Fig. 2 is a top plan view thereof. Fig. 3 is a longitudinal sectional view of one of the liquid containing tanks. Fig. 4 is a cross-sectional view taken approximately on the indicated line 4—4 of Fig. 3. Fig. 5 is a front elevation of one of the liquid containing tanks. Fig. 6 is a view in perspective of a specially formed funnel of which we make use in refilling the liquid containing tanks.

Referring by numerals to the accompanying drawings, 1, 1 indicate wheels, the axle 2 of which consists of a length of ordinary gas-pipe. Fixed to and extending upwardly from the axle 2 near the wheels 1 are short sections of pipe 3 that are connected by T-couplings 4 to longitudinally extending pipes 5, the same being connected at their forward ends to a transversely positioned handle 6. The rear ends of the longitudinally extending pipes 5 are connected by a transversely positioned pipe 7.

At a suitable distance in front of the T-couplings 4 on the longitudinal pipes 5 are T-couplings 8 that are connected to a trans-

versely positioned pipe 9. Positioned upon the transversely positioned pipes 7 and 9 is a pair of tanks 10 and 11, the same being rigidly held upon the frame work of pipes by bands 12 passing entirely around said tanks and the longitudinal pipes 5.

Extending forward from the centers of the tanks 10 and 11 are short sections of pipe 13 that are connected by a transverse pipe 14, from the center of which projects a discharge pipe 15, to the outer end of which is connected one end of a flexible tube or hose 16. Located in the transverse pipe 14 on each side of the discharge pipe 15 are cut-off valves 17. Extending upwardly from the juncture of the discharge pipe 15 and the transversely positioned pipe 14 is a pipe 18 that is fitted at its upper end with an ordinary pressure indicator 19.

Brackets 20 have their lower ends rigidly fixed to the bands 12 on the sides of the tanks 10 and 11, and have their upper ends formed into bearings 21. Mounted for rotation in these bearings 21 is a shaft 22, upon which is mounted a drum 23. One end of the shaft 22 extends through one of the bearings 21 and is squared as indicated by 24, for the purpose of positioning a crank-handle thereon. The flexible tube or hose 16 previously mentioned is wound upon the drum 23.

A funnel 25 has its tube 26 so bent that said tube discharges at right angles to the body portion of the funnel. Rigidly fixed to the upper edge of the funnel 25 is an arm 27, the upper end of which is formed into an eye 28. A transverse rod 29 passes through this eye 28 across the rear ends of the tanks 10 and 11, and has its ends rigidly fixed to the rear one of the bands 12. This arrangement allows the funnel to be moved transversely the entire length of the rod 29. Said funnel may also be turned up and out of engagement with the rear ends of the tanks 10 and 11.

In the rear end of each of the tanks 10 and 11 is formed an aperture 30, a flange 31 extending outwardly and around the entire edge of said aperture. A cap 32 is provided with a flange 33 and is adapted to fit directly over the flange 31 of the aperture 30. The lower edge of this cap 32 is provided with a lug 34 that engages between ears 35 that are formed

integral with the face of the rear end of the tank. By this means the cap 32 is hinged to the rear face of the tank.

Formed integral with and extending upwardly from the flange 33 of the cap 32 and directly opposite the lug 34 is a lug 36 over which is adapted to engage a yoke 37 that is hinged to ears 38 formed integral with the face of the tank, said yoke also being provided with a set-screw 39. When the yoke 37 is properly positioned upon the lug 36, the set-screw 39 is adapted to engage directly upon the face of said lug. A layer of suitable packing 40 is located within the cap 32.

Passing through a centrally arranged aperture 41 in the cap 32 is a rod 42, on the forward end of which is a disk 43, and on the rear end of which is a smaller disk 44.

Arranged oppositely from one another on the interior of the tank and adjacent the aperture 30 are fixed longitudinally extending rods 45, the ends of which are bent toward each other as indicated by 46, and then longitudinally as indicated by 47. A bottle or chemical containing receptacle, such as 48, is adapted to be positioned longitudinally within the rods 45, said receptacle being provided with an ordinary cork 49. An expansive coil-spring 50 is interposed between the bent portions 46 of the rods 45 and the shoulder of the bottle or chemical receptacle 48. A box 51 adapted to contain bottles of chemicals, tools, &c., is carried by the axle 2 of our improved extinguisher.

The operation is as follows: When it is desired to break the seal of the chemical-containing receptacle 48 to allow the contents thereof to mingle with the contents of the tank, the operator forces the disk 44 on the outer end of the rod 42 forward. The disk 43 on the inner end of the rod 42 engaging directly on the base of the chemical containing receptacle 48 forces said receptacle forward, thus compressing the coil-spring 50 and causing the cork 49 of the bottle or receptacle to contact with the ends 47 of the rods 45. As this forward movement is continued, the cork 49 will be forced into the bottle or receptacle 48, the seal broken and the contents of said receptacle allowed to mingle with the contents of the tank. The hose 16 is now unreeled, and when the valve 17 in the transversely arranged pipe 14 is opened, the contents of the tank are free to discharge through said hose. The chemicals and liquids within the tanks may be very thoroughly and quickly mingled by giving said tanks an oscillating movement by means of the handle 6. The function of the coil-spring 50 is to cause the base of the chemical-containing bottle or receptacle to contact with the disk 43 on the forward end of the rod 42. When the contents of the tank have been exhausted and it is desired to refill said tank and position a bottle or receptacle containing chemical within said tank, the operator manipulates the set-screw 39 until the yoke 37 can be removed from the lug

36. This having been done the cap 32 carrying the rod 42 and disks 43 and 44, is swung downwardly on its hinge. The empty chemical receptacle or bottle 48 is now removed and the funnel 25 moved along the transversely positioned rod 29 until the lower end of the tube 26 of said funnel is in direct alignment with the aperture 30 of the tank. The end of said tube is now passed into the tank and the suitable liquid passed through the funnel and into the tank. The funnel 25 is now removed from the aperture 30 and a full bottle properly corked and sealed inserted between the horizontally arranged rods 45 in such a manner as that the coil-spring 50 will engage with the shoulder of said bottle or receptacle. The cap 32 is now re-positioned upon the flange 31 and the yoke 37 passed over the lug 36 and there securely positioned by means of the set-screw 39.

By providing a cut-off valve on each side of the discharge pipe 15, the contents of the tanks may be discharged at the same time, or either one of the discharge pipes of said tanks cut off. By this construction a continuous discharge is obtained, as the contents of one tank may be discharged while the other tank is being filled.

By our improved construction, it will be seen how the seal of the chemical containing receptacle or bottle may be broken without breaking the bottle or receptacle itself. The coil-spring pressing the bottle or receptacle 48 against the disk 43, the packing 40 between said disk 43 and the cap 32 will effectually prevent any leakage of the contents of the tank through the aperture 41 in which the rod 42 operates. By mounting the tanks upon wheels, said tanks can be readily moved from one place to another, and they can also be moved backward and forward and also oscillated, thereby agitating the chemical in said tanks and causing the same to become thoroughly mingled.

A fire extinguisher of this construction possesses superior advantages in point of simplicity, durability and general efficiency.

What we claim is—

1. A fire extinguisher having a plurality of tanks positioned upon a frame work mounted upon wheels, a reel mounted above said tanks, discharge pipes leading from the ends of the tanks to a single discharge pipe, a rod transversely positioned above the rear ends of the tanks, and a funnel mounted to slide upon said transversely positioned rod, the discharge of said funnel being at right angles to the body portion thereof.

2. A fire extinguisher, comprising a plurality of tanks mounted upon trucks, discharge pipes from said tanks connected to a single discharge pipe, a plurality of horizontally arranged rods extending inwardly from apertures in the rear ends of the tanks, the forward ends of said rods being bent toward one another and then rearwardly, chemical containing receptacles or bottles located between

said horizontal rods, coil-springs located between the ends of the rods and the shoulders of the bottles or receptacles, and hinged caps carrying plungers, said caps adapted to close the apertures in the rear ends of the tanks.

3. In a fire extinguisher, a liquid containing tank provided with an aperture at one end, a cap hinged to the end of the tank and adapted to cover said aperture, a rod provided with disks on its ends passing through said cap, a series of rods extending longitudinally within the tank from the aperture in the end thereof, the rear ends of said rods being bent toward each other and toward the aperture, a chemical containing receptacle or bottle positioned between the longitudinal rods, and a coil-spring positioned between the ends of the longitudinal rods and the shoulder of said receptacle or bottle, the function of said coil-spring being to force the receptacle or bottle against the disk on the inner end of the rod passing through the cap that covers the aperture.

4. In a fire extinguisher, a tank provided with an aperture at one end, a cap adapted to cover said aperture, and a plunger comprising a rod having disks mounted on the ends thereof, said rod passing through the cap and adapted to force a liquid containing recepta-

cle or bottle forward in order to disengage the cork of said bottle or receptacle, thereby breaking the seal and allowing the contents of the receptacle to discharge.

5. In a fire extinguisher, the combination of a plurality of tanks mounted upon wheels, discharge pipes from said tanks connected to a single discharge pipe, a hose-reel mounted upon and above said tanks, hinged caps covering the apertures in the rear ends of the tanks, rods provided with disks on their ends passing through said caps, longitudinally extending rods fixed to the edges of the apertures in the tanks, the forward ends of said rods being bent toward each other and rearwardly, a coil-spring located between the longitudinally extending rods and around the rearwardly bent ends thereof, and a chemical bottle or receptacle adapted to be positioned between the rear end of the coil-spring and the disk on the inner side of the cap that covers the aperture in the rear end of the tank.

In testimony whereof we affix our signatures in presence of two witnesses.

FERDINAND MEYROSE.

JAY L. BRADLEY.

Witnesses:

MAUD GRIFFIN,
JNO. C. HIGDON.