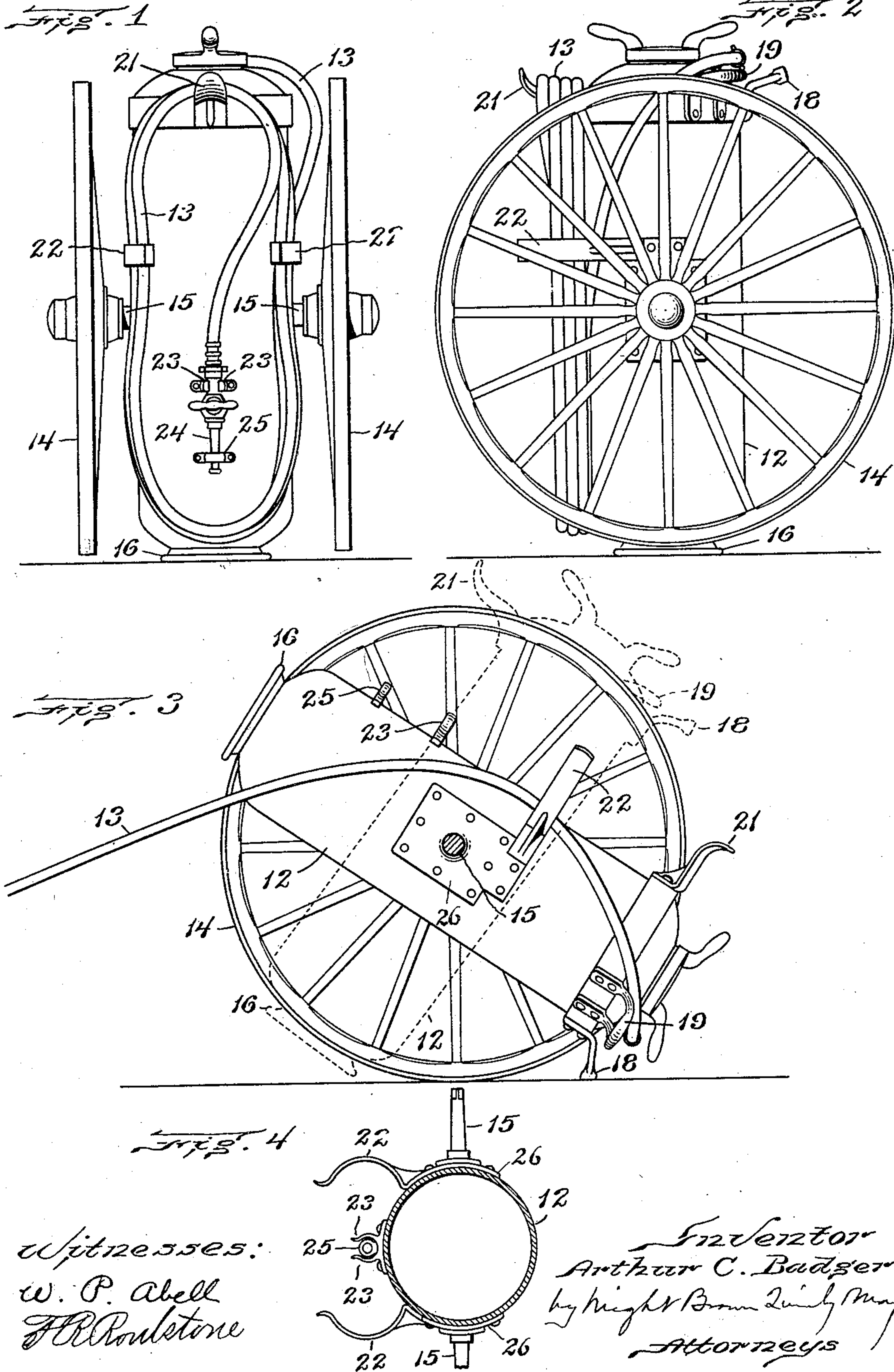


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FIRE EXTINGUISHER.  
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924,218.

Patented June 8, 1909.



Witnesses:  
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# UNITED STATES PATENT OFFICE.

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## FIRE-EXTINGUISHER.

No. 924,218.

Specification of Letters Patent.

Patented June 8, 1909.

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*To all whom it may concern:*

Be it known that I, ARTHUR C. BADGER, of Newton, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Fire-Extinguishers, of which the following is a specification.

This invention relates to a chemical fire extinguisher which is charged with an acid and a suitable ingredient, such as a soda solution, adapted to combine with the acid to form carbonic acid gas under pressure, the ingredients being separated from each other when the tank is in an upright position, and brought into union by the inversion or inclination of the tank.

The invention has for its object to provide an extinguisher of this class of large capacity capable of dealing with fires of considerable magnitude, and therefore of greater weight than the ordinary hand chemical fire extinguishers.

The invention is embodied in a chemical fire extinguisher comprising a tank, carrying wheels mounted on the tank, and adapted for use in transporting the same, and means for storing a hose upon the exterior of the tank between the wheels, the relative arrangement of the tank and wheels being such that the tank may rest upon its foot in an upright position with the wheels elevated above the supporting surface, or may be inclined to give the wheels a bearing on the supporting surface and permit the transportation of the apparatus without mixing the contents of the tank, the tank being adapted to be further tipped or inclined sufficiently to cause the mixture of the contents and the generation of gas under pressure.

Of the accompanying drawings forming a part of this specification, Figure 1 represents a front elevation of a fire extinguisher embodying my invention. Fig. 2 represents a side elevation of the same, the tank being shown in an upright position in Figs. 1 and 2. Fig. 3 represents a view similar to Fig. 2, one of the wheels being removed and the tank tipped to cause the mixture of its contents. Fig. 4 represents a transfer section of the tank without its carrying wheels.

The same numerals of reference indicate the same parts in all the drawings.

In the drawings, 12 represents a tank of suitable construction to withstand the pressure of gas generated within it by the union

of suitable ingredients such as sulfuric acid and a soda solution, the tank being provided with a hose 13 suitably connected with the head portion of the tank.

14, 14 represent carrying wheels which are suitably connected with the tank, the hubs of the wheels being preferably mounted and rotated on axle arms 15, 15, affixed to opposite sides of the tank and projecting in opposite directions therefrom substantially in the central vertical line of the tank. The relative arrangement of the tank and wheels is such that when the tank is in an upright position, as shown in Figs. 1 and 2, its base or foot 16 will rest upon a supporting surface or floor, the wheels being raised from said surface so that they are inoperative. When the tank is in this position, its gas generating ingredients are held separate from each other, so that the apparatus is inoperative, or in other words, is in an inoperative position. When the tank is to be used, it is tipped from its inoperative position either forward or backward to an inclined position such as illustrated by full lines in Fig. 3, this being the operative position of the tank, because it causes the escape of the acid element and its mixture with the soda solution. The head portion of the tank is provided with a suitable abutment adapted to bear on the supporting surface when the tank reaches its operative position, said abutment, as here shown, being an arm 18 projecting from the front side of the head portion of the tank. The tank is maintained in its inoperative position by the weight of its contents, and by the bearing of the abutment 18, and of the wheels 14 on the supporting surface.

If it is desired to transport the extinguisher for any considerable distance before making it operative, the tank is first tipped only sufficiently to move the wheels into contact with the supporting surface without mixing the contents of the tank, as indicated by dotted lines in Fig. 3. When the tank is in this position it may be readily transported, the wheels running freely on the supporting surface. Suitable handles 19 are provided at the front of the tank between the wheels to enable the operator to conveniently push or pull the apparatus to the desired spot.

The tank is provided preferably at the side opposite the handles 19 with means for storing the hose 13, said means, as here shown, including a bracket 21 attached to the head portion of the tank, and adapted to support



a plurality of convolutions of the hose, a pair of side arms 22, 22, projecting from the tank below the bracket 21, a pair of spring clips 23 projecting from the tank below the side arms 5 22, and adapted to engage the base portion of the hose nozzle 24, and an eye or socket 25 attached to the tank below the clips 23, and adapted to receive the tip of the nozzle. The side arms 22 confine the convolutions of 10 the hose against outward movement toward the wheels, as indicated in Fig. 1.

It will be seen that when the use of the extinguisher becomes necessary, the tank may be readily swung to the position shown by 15 dotted lines in Fig. 3, and moved to the place where its use is required, and then quickly moved to its operative position shown in full lines in Fig. 3, this causing an immediate generation of gas, the extinguisher being 20 ready for use by the time the hose can be uncoiled and extended. After use, the tank may be readily returned to the position shown in Figs. 1 and 2, and again charged.

The axle arms 15 are attached to the tank 25 by means of segmental plates 26, suitably affixed to the bases of the axle arms, and riveted to the tank. The hose-confining arms 22 are preferably integral parts of the plates 26, as shown in Fig. 4, provision being 30 thus made for attaching the axle arms and the hose-confining arms at one operation, and for reducing the number of separate parts to the minimum.

I claim:

35 1. A fire extinguisher comprising a tank and carrying wheels constituting a support on which the tank is adapted to swing forward or backward from an upright inoperative position to an inclined operative posi- 40 tion, said tank having a base or foot outside the circumference of the wheels.

2. A fire extinguisher comprising a tank and carrying wheels mounted substantially 45 in the line of the center of the tank and constituting a support on which the tank is

adapted to swing from an upright inoperative position to an inclined operative position, the foot of the tank projecting outside the circumference of the wheels, whereby when the tank is in an upright position, the wheels 50 are elevated above the surface which supports the extinguisher.

3. A fire extinguisher comprising a tank and carrying wheels constituting a support on which the tank is adapted to swing for- 55 ward or backward from an upright inoperative position to an inclined operative position, said tank having a base or foot outside the circumference of the wheels, the head of the tank having an abutment adapted to 60 bear on a supporting surface when the tank is in its operative position.

4. A fire extinguisher comprising a tank and carrying wheels constituting a support on which the tank is adapted to swing for- 65 ward or backward from an upright inoperative position to an inclined operative position, said tank having a base or foot outside the circumference of the wheels, hose-storing members at the rear side of the tank, and an 70 abutment at the front side of the tank adapted to bear on a supporting surface when the tank is in its operative position.

5. A fire extinguisher comprising a tank, segmental plates attached to opposite sides 75 of the tank, axle arms secured to said plates and projecting outwardly therefrom, carrying wheels engaged with said axle arms, and hose-confining arms formed integral with said plates and projecting from the rear side 80 of the tank between the wheels, the tank being provided with a hose-supporting arm or bracket above the said confining arms.

In testimony whereof I have affixed my signature, in presence of two witnesses.

ARTHUR C. BADGER.

Witnesses:

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