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PORTABLE FIRE FIGHTING APPARATUS

Filed Dec. 13, 1935

2 Sheets-Sheet 1

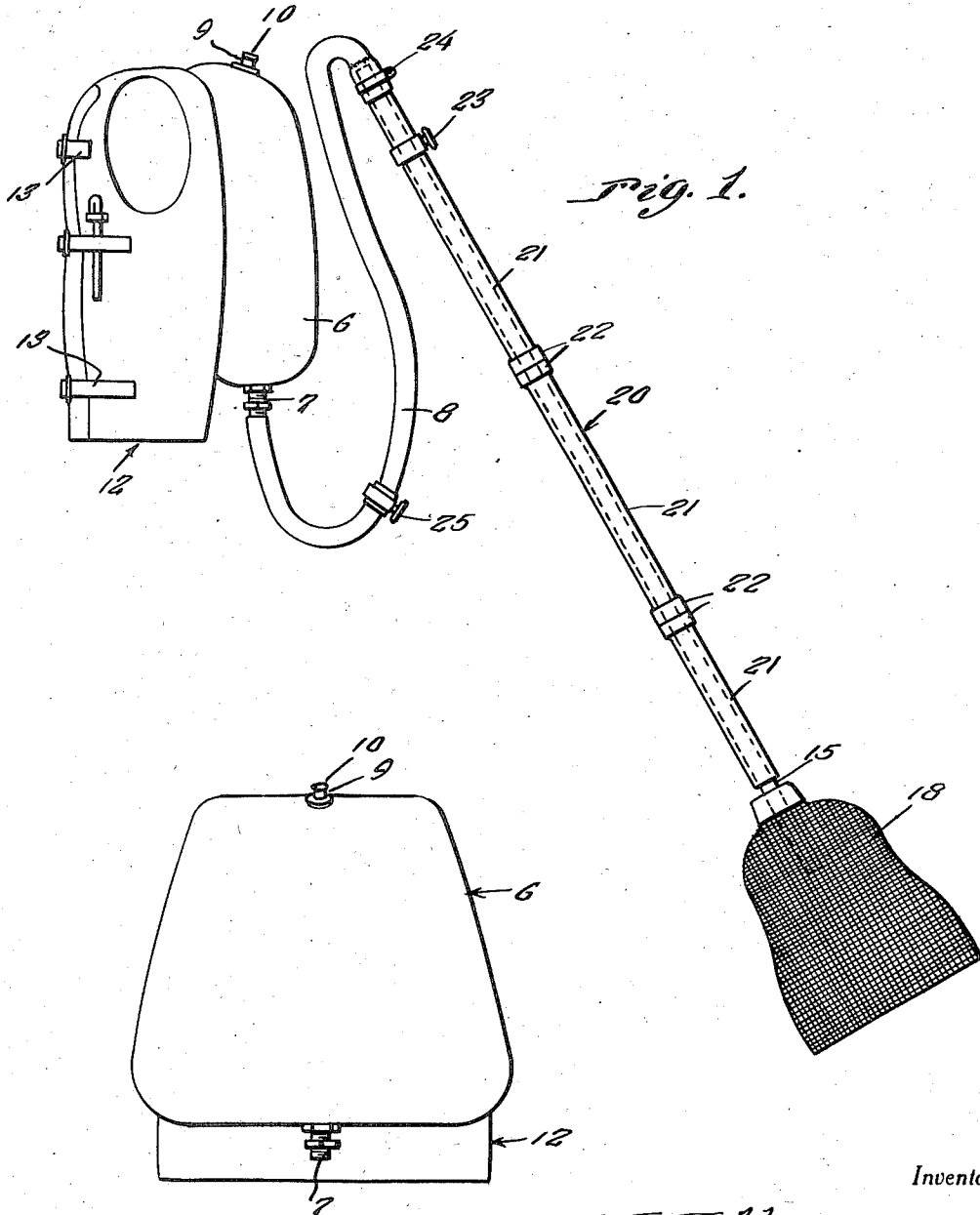


Fig. 1.

Fig. 2.

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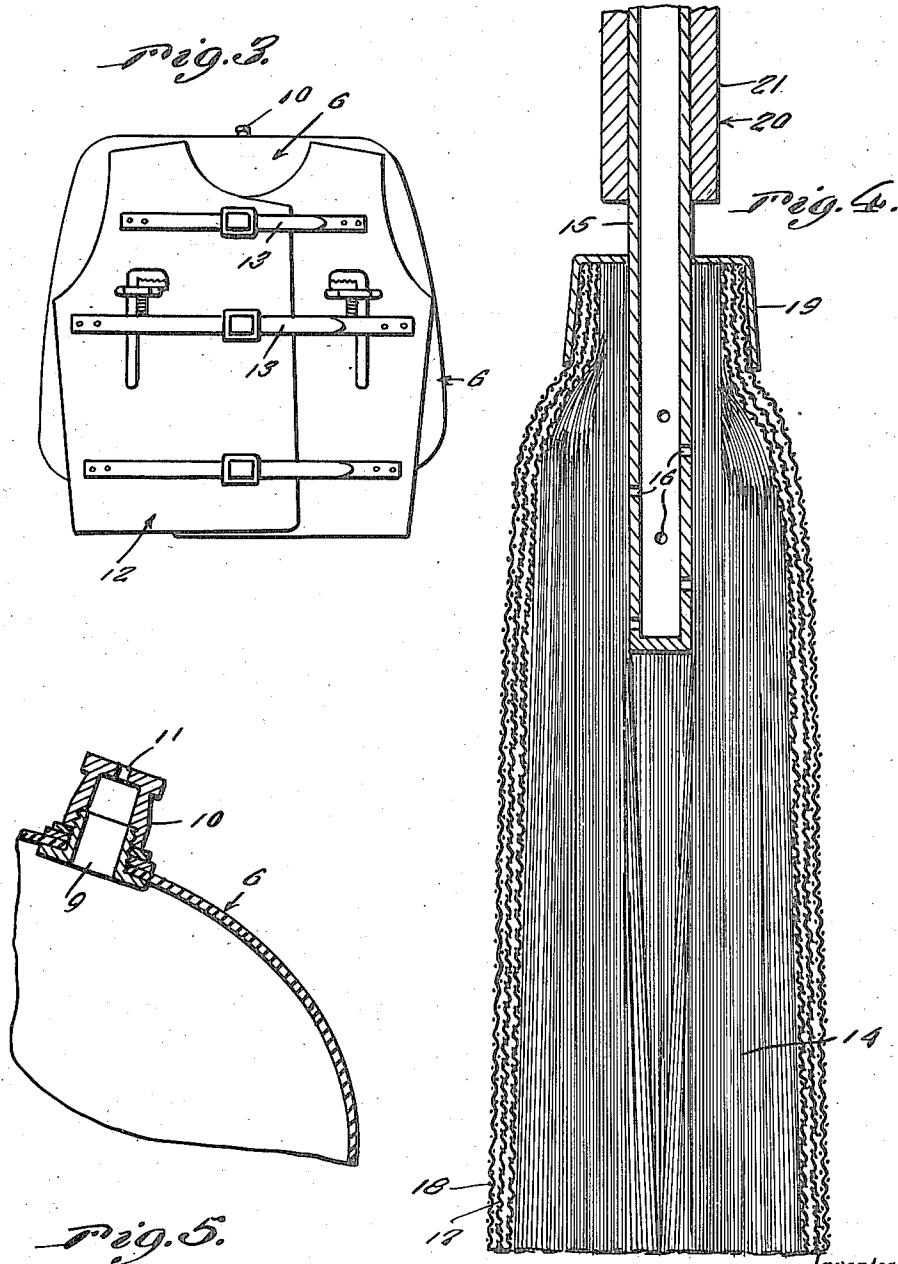
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UNITED STATES PATENT OFFICE

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PORTABLE FIRE FIGHTING APPARATUS

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Application December 13, 1935, Serial No. 54,345

5 Claims. (Cl. 169—1)

This invention relates to an ingenious safety-type fire fighting apparatus, constructed to be temporarily worn and utilized by a walking attendant while attempting to extinguish certain types of fire generally classified as forest fires.

Men of voluntary local brigades, as well as those of that class referred to as firemen, are hopelessly and inadequately equipped for the task encountered in many localities. Various improvised and make-shift accessories and apparatuses are utilized. Under the circumstances, effective fire control, especially in the hands of novices, leads to no end of trouble and promotes danger to those so engaged.

Conversant with many of the structures utilized for these purposes, and well acquainted with the unreliable results attained, I have now perfected what I believe is an innovation in this special line of endeavor, and something which may be unqualifiedly endorsed in the industry and trade in general.

Briefly, the preferred embodiment of the invention is characterized by a portable fire extinguisher, a harness for conveniently carrying it on the back of the wearer, a manually manipulated fountain type broom or equivalent assemblage, and an appropriate valved conduit affording appropriate connection between said device and extinguisher.

Novelty apparently resides in the special adaptation and coordination of these features collectively, as well as in the component parts, the essential novelty being predicated upon the manually actuated broom-like device and its flexible connection with the extinguisher.

Other features and advantages will become readily apparent from the following description and the accompanying illustrative drawings:

In the drawings, wherein like numerals are employed to designate corresponding parts or details throughout the same:

Figure 1 is a view primarily of an elevational character showing the parts partially in perspective.

Figure 2 is a rear view of the extinguisher reservoir or tank and the carrier harness.

Figure 3 is a top view of the harness in particular showing the armless vest-like construction.

Figure 4 is an enlarged sectional view through the nozzle-equipped or fountain-type broom device.

Figure 5 is a fragmentary sectional view of the filler means on the extinguisher tank.

The structure may be systematically defined by

referring first to the extinguisher unit. This comprises an appropriate fire-proof reservoir or tank 6 of suitable shape and capacity. It is intended to contain plain water, or a special chemical fluid, whichever is found to be most practicable. At its bottom it is formed with a gravity discharge nipple 7 appropriately constructed to accommodate the rubber delivery hose 8, forming a part of the unitary conduit. As shown in Figure 5 at the top is a filler neck 9, threaded and provided with an external closing cap 10 having an air vent 11. This constitutes the means to facilitate charging the extinguisher with the extinguishing agent.

The extinguisher tank is attached to the back of a carrier 12 which may be conveniently described as an armless vest or jacket. This is made of asbestos or equivalent fire-resisting sheet material. The over-lapping portions of the vest may be conveniently joined together by buckle-equipped straps 13. If desired accessories or tools may be carried on the jacket for convenient use in repairing couplings and tightening nuts, etc.

As before implied, one of the outstanding features of the complete assemblage is the manually manipulated fountain head device, this being expressly made for raking, sweeping and otherwise disseminating brush and entangled undergrowth. Primarily, however, the device is in the nature of a handle-equipped broom so that it can be conveniently utilized as a fire beater. That is to say, the user will no doubt employ this part of the structure in divers ways, instinctively, or according to prescribed instructions, as is obvious. The broom is a self-contained safety structure and includes a broom head 14 such as may be constructed of regular broom corn or wire bristles, if necessary. It has a more or less conventional shape and is mounted on a tubular stem of shank 15. The part 15 is in the form of a metal pipe and has the lower end protruding into the broom and formed with fluid discharge ports 16. This provides the desired fountain or spray action. The bristles may be said to be encased or housed in a protective cover. This comprises a reticular member or fabric 17 confined within a screen sheath or jacket 18. The bristles, as well as the parts 17 and 18, are fashioned into a unit which is held on the nozzle stem 15 by a ferrule or cap 19.

The tube or pipe 15 may form a part of the broom handle 20. The broom handle is preferably made up of a series of outer sleeves or pipes 21 suitably coupled together for repair and adjustment as indicated at the points 22. The pipe 15 may extend entirely through the sectional sleeve-

handle or it may be relatively short and project only into the lower section thereof if found sufficiently practical. At the upper end of the handle is a cut-off valve 23 of any appropriate type.

5 The adjacent end of the hose is clamped or otherwise secured to the handle as indicated at 24. In the hose line itself is a regulating valve 25. Manifestly, the hose is sufficiently long to provide for the requisite flexibility of handling of the broom
10 and the hose together with the handle and its parts may be unitarily described as the valved conduit.

It is submitted that a structure of this type is ideal for the purposes intended. It provides a
15 structure which may be adequately used by the novice or the experienced fire-hand as the case may be. Little or no teaching is required to enable the user to obtain satisfactory results and intuition in handling is frequently a satisfactory
20 guide. As before stated, however, the principal idea is to provide a fire-proof extinguisher, a fire-proof harness for mounting it on the person, a valved conduit possessing appropriate flexibility, and a fire beater of the fountain type. The retic-
25 ular jacket structure around the broom head itself gives it the necessary durability for successive pounding, yet is sufficiently flexible to allow the broom to be swept back and forth, so to speak, for loosening burning under-brush in
30 order to permit the extinguishing fluid to penetrate and satisfactorily extinguish the flames.

It is thought that persons skilled in the art to which the invention relates will be able to obtain a clear understanding of the invention
35 after considering the description in connection with the drawings. Therefore, a more lengthy description is regarded as unnecessary.

Minor changes in shape, size and the arrangement of details coming within the field of invention claimed may be resorted to in actual practice,
40 if desired.

I claim:

1. In a structural assemblage of the class described, a manually manipulated fire beating im-
45 plement, said implement being of a fountain type and constructed to apply a fire extinguishing agent directly to the fire, a fire extinguishing

agent container, and means operatively connecting said implement with said container.

2. In a structural assemblage of the class described, a manually manipulated fire beating im- 5 plement, said implement being of a fountain type and constructed to apply a fire extinguishing agent directly to the fire, a fire extinguishing agent container, and means operatively connect-
10 ing said implement with said container, said means including a flexible valved conduit.

3. In a structural assemblage of the class described, in combination, a fire extinguishing agent container of a fire-proof character, fire-proof
15 harness connected therewith for conveniently mounting said agent container on the body of the user, a fire pounding and scattering im-
20 plement, and an operating connection between said implement and agent container to deliver the extinguishing agent from the extinguisher to the effective working end of said implement.

4. A fire-fighting implement constituting a part of a structural assemblage of the class described, comprising a broom head embodying flexible
25 bristles, a liquid supply nozzle mounted in said bristles, a laminated guard jacket completely surrounding the exterior of the broom head in a manner to expose the free sweeping ends of the
30 bristles, a hollow liquid chemical supply and delivery handle operatively connected with said nozzle, and a valved hose associated with the
35 handle in the manner and for the purposes described.

5. In a fire fighting apparatus of a portable type, a fireproof quick attachable and removable
40 jacket designed to be worn by the user, an extinguisher tank of a fire-proof character attached to the back of said jacket, said tank being adapted to contain a fire extinguishing liquid and being
45 provided with a gravity discharge nipple at its bottom and at its top with a vented liquid filler device, a fire pounding and scattering implement including a liquid spray nozzle and a hollow operating handle connected with said nozzle, and a flexible hose connection between said handle and the discharge nipple at the bottom of said tank.

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