

[54] FIRE FIGHTING SYSTEM

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[51] Int. Cl. **A62c 3/00**

[58] Field of Search.....169/1, 24, 25, 2 A; 239/172

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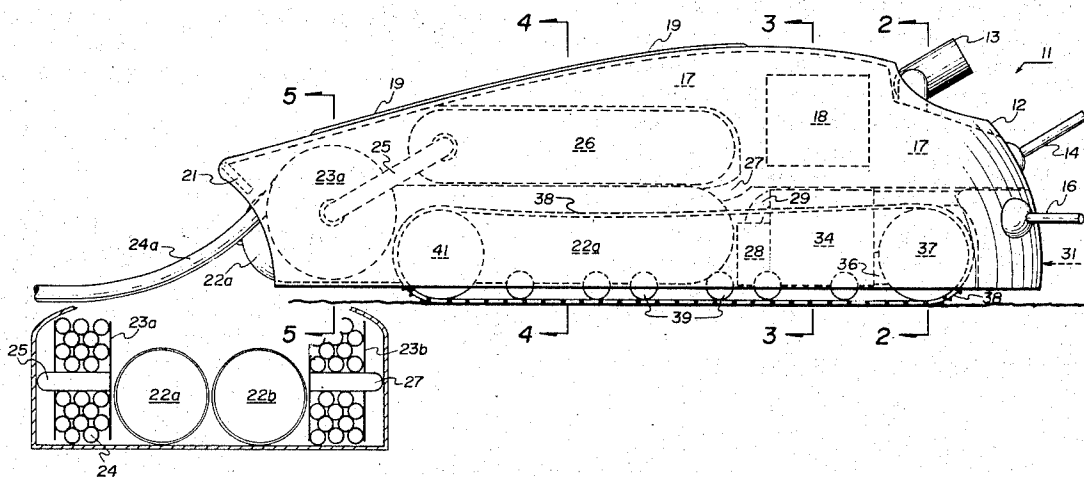
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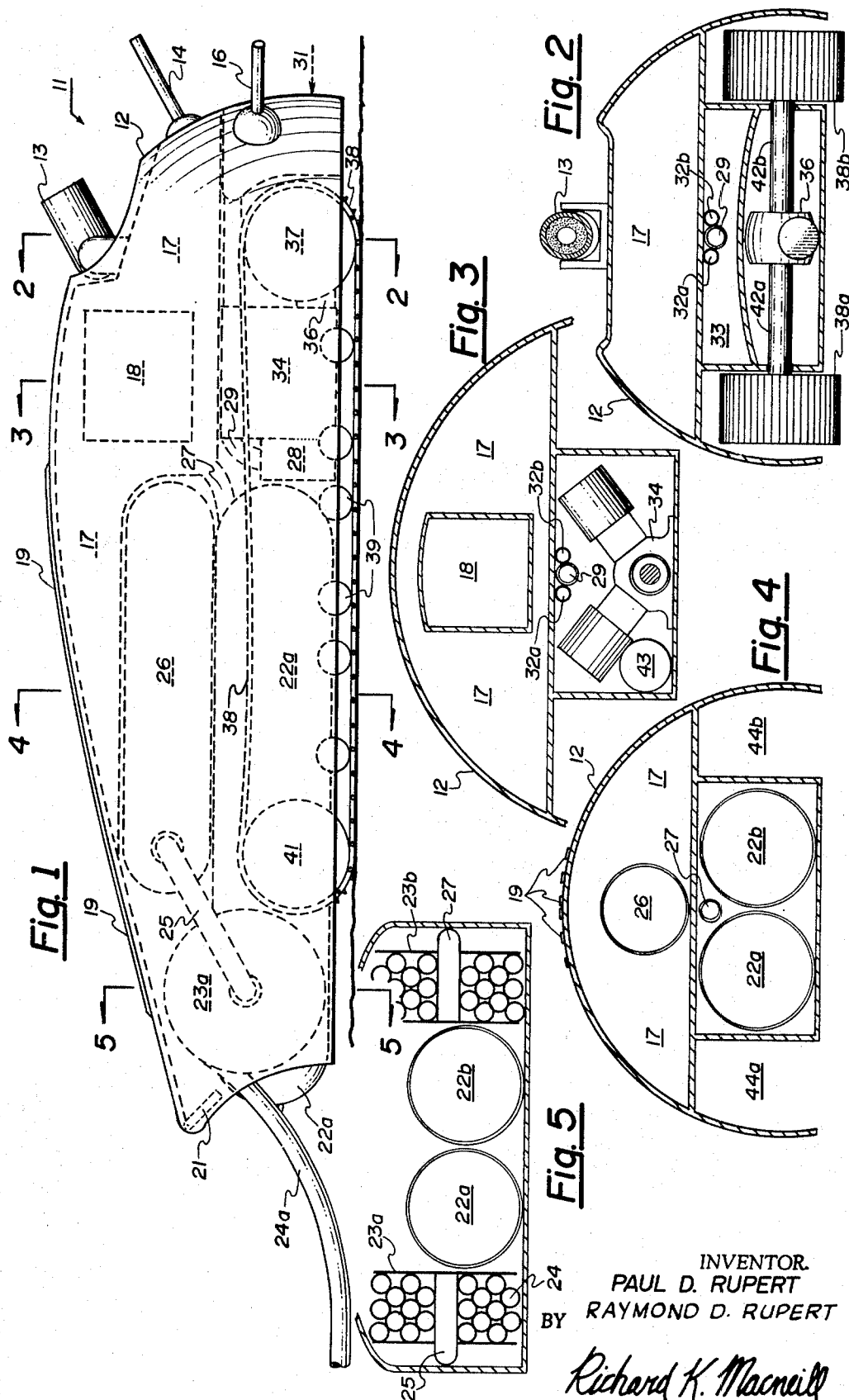
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ABSTRACT

A fire fighting system including a plurality of shielded vehicles which can be remote controlled and are propelled on tracks containing a water tank shield surrounding the remote controlled equipment or an operator and a pair of sweeping nozzles for discharging foam into the fire area together with a remote supply hose reel for reeling out hose as it advances, the hose being connected to a water supply; a TV camera with suitable transmitting equipment, and high pressure air tanks for powering the foamed water to the fire area together with a plurality of hurricane fans being supplied with a fogging agent for blowing fog into the fire area.

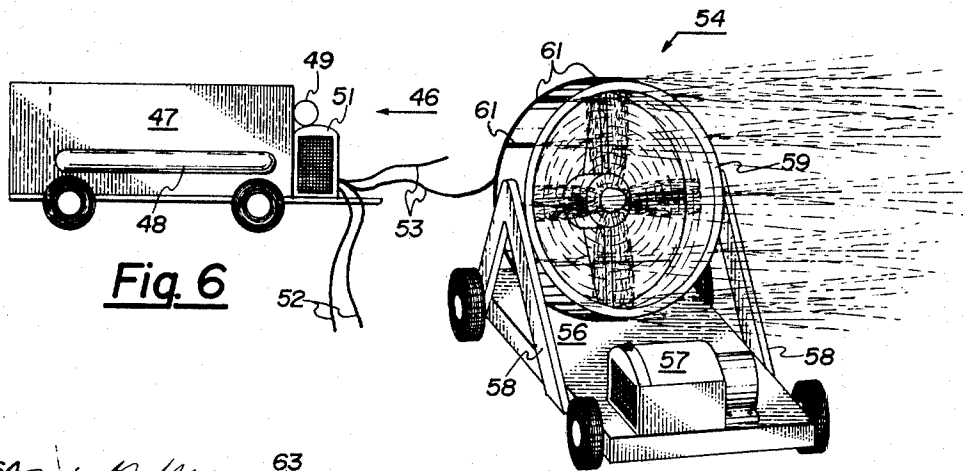
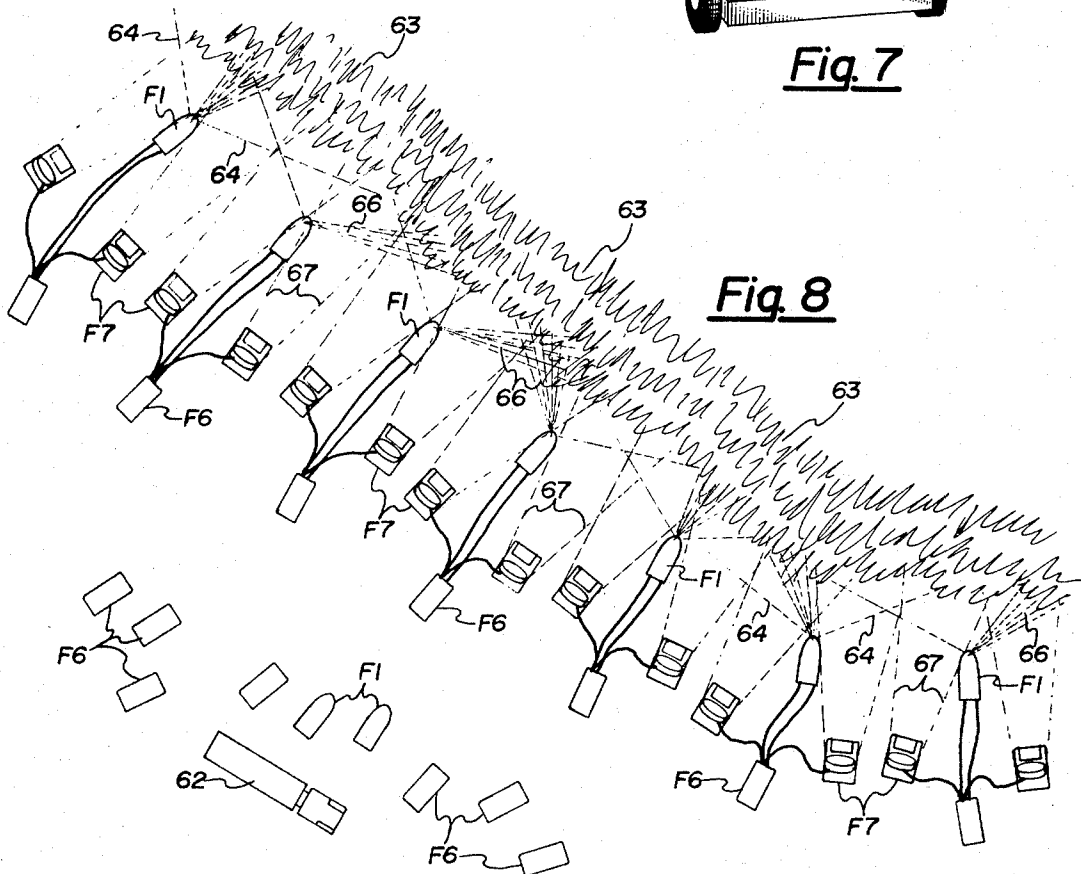
3 Claims, 8 Drawing Figures





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FIRE FIGHTING SYSTEM

BRIEF DESCRIPTION OF THE INVENTION

The present invention relates to a fire fighting system and more particularly to a fire fighting system which can remotely fight large fire areas.

According to the invention, a fire fighting system is provided in which a plurality of shielded vehicles are disbursed along the fire area edge. Each of the vehicles is supplied with water either remotely or from their own tanks which in turn is mixed with a foaming agent or other chemical and blown through sweeping nozzles into the fire area. The vehicle can include a television camera together with suitable transmitting equipment and in the case of remote control operation suitable remote control responding electronic equipment. A plurality of hurricane fans are disposed along with the shielded vehicles for blowing a fogging agent into the fire area to contain the fire storm.

An object of the present invention is the provision of an improved fire fighting system.

Another object of the invention is the provision of a fire fighting system for fighting large area fires.

Another object of the invention is the provision of a fire fighting system utilizing remote controlled vehicles.

Yet another object of the invention is the provision of a fire fighting system which is relatively simple and extremely effective.

Other objects and many of the attendant advantages of this invention will be readily appreciated as the same becomes better understood by reference to the following detailed description when considered in connection with the accompanying drawings in which like reference numerals designate like parts throughout the FIGS. and wherein:

FIG. 1 is a side elevation of the shielded vehicle of the present invention;

FIG. 2 is a cross-sectional view taken along lines 2—2 of FIG. 1;

FIG. 3 is a cross-sectional view taken along lines 3—3 of FIG. 1;

FIG. 4 is a cross-sectional view taken along lines 4—4 of FIG. 1;

FIG. 5 is a cross-sectional view taken along lines 5—5 of FIG. 1;

FIG. 6 is a side elevation view of the tanker unit of the present invention;

FIG. 7 is a perspective view of a hurricane fan utilized in the present invention; and

FIG. 8 illustrates the units of FIGS. 1, 6 and 7 disposed in fire fighting positions.

DETAILED DESCRIPTION OF THE DRAWING

Referring to FIG. 1, the shielded vehicle of the present invention is shown generally at 11 having a body 12. Weldable camera housing 13 is internally synchronized with a weldable nozzle 14. Sweeping nozzle 16 is symmetrically disposed with another sweeping nozzle (not shown). A water storage tank 17 surrounds the remote control responder and television transmitter 18 and acts as a heat shield therefor. Antennas 19 are coupled to remote control responder and television transmitter 18.

Control panel 21 is disposed above removable high pressure air tanks 22A and 22B which are inboard from 2 remote supply wheels 23A and 23B with windings of

remote supply hose 24A and 24B. Connecting tube 25 is coupled between foaming additive supply tank 26 and high speed pump 28. High speed pump 28 has an exhaust coupled through pump connection tube 29 to mixing and nozzle supply chamber 31. Supply chamber 31 is pressured for foam generation by air lines 32A and 32B (FIG. 2) from high pressure air tanks 22A and 22B which pass through fuel tank 33 (FIG. 2). Pump 28 and the entire vehicle is powered by compact engine 34 which is connected through transmission 36 to forward track drivers 37. Track rolls 38 under bogie wheels 39 transfer the weight of the vehicle through the track to the surface beneath the vehicle. The track returns around rear track drivers 41. Drive axles 42A and 42B are shown in FIG. 2. Generator 43 is driven by engine 34. Track channels 44A and 44B house tracks 38A and 38B.

Referring to FIG. 6, a tanker unit 46 consists of storage tanks 47, reserve air tanks 48, fuel 49 and high volume pump motor 51. Supply lines 52 are coupled to the vehicle of FIG. 1 and supply line 53 is coupled to a hurricane fan (FIG. 7).

Referring to FIG. 7, a hurricane fan which is utilized as a fog blower is shown at 54 having a platform 56 carrying motor generator 57 and support frames 48. Support frames 58 carry tiltable hurricane fan 59 which carries spray nozzles 61 around its periphery. Spray nozzles 61 are coupled to supply line 53 (FIG. 6).

Referring to FIG. 8, a general layout is shown of the units of FIGS. 1—7. F1 designates the vehicles of FIG. 1, F5 designates the tankers of FIG. 6 and F7 designates the fog blowers of FIG. 7. A command headquarters van 62 is shown adjacent to reserve tankers F6 and reserve vehicles F1. The fire front 63 is faced by a multiplicity of fire fighter system units each comprising one tanker, one vehicle and two blowers. The sweep pattern of the lower vehicle nozzle 16 is shown at 64. The directable pattern of upper vehicle nozzle 14 is shown at 66 which is augmented by the concentrated high velocity fog patterns 67 produced by fog blowers F6.

It should be understood, of course, that the foregoing disclosure relates to only a preferred embodiment of the invention and that it is intended to cover all changes and modifications of the example of the invention herein chosen for the purposes of the disclosure which do not constitute departures from the spirit and scope of the invention.

We claim:

1. A fire fighting system comprising:

a plurality of shielded vehicles;

at least one fire repellent fluid tank in each of said plurality of shielded vehicles;

a nozzle coupled to said at least one tank;

a high pressure air tank coupled to said at least one tank for powering said fluid repellent to a fire area; and

a plurality of hurricane fans disposed in proximity to said plurality of shielded vehicles, said hurricane fans being supplied with a fogging agent for blowing fog into a fire area.

2. The fire fighting system of claim 1 and further including:

a TV camera mounted in each of said plurality of shielded vehicles for transmitting to a remote area.

3. The fire fighting system of claim 1 wherein:

said nozzle comprises a sweeping nozzle.