

Oct. 26, 1926.

1,604,290

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APPARATUS FOR DISTRIBUTING A FIRE PREVENTING
AND EXTINGUISHING COMPOSITION
Filed July 23, 1925

Fig. 1.

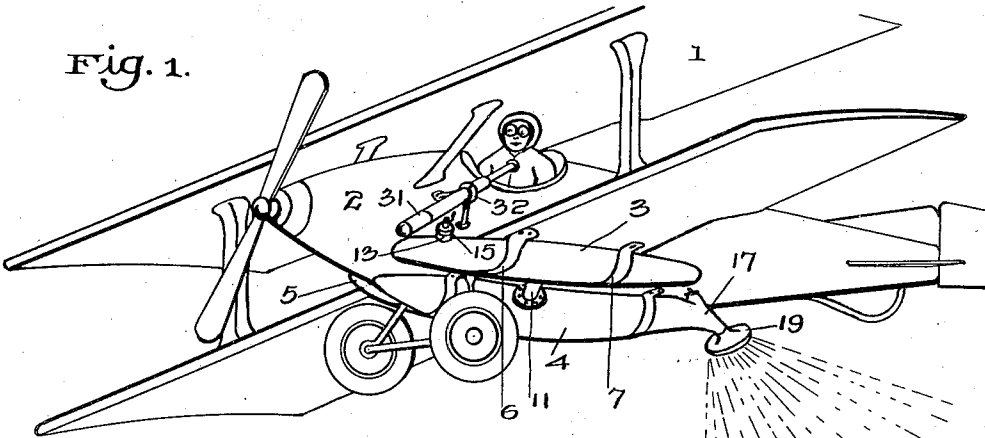


Fig. 2.

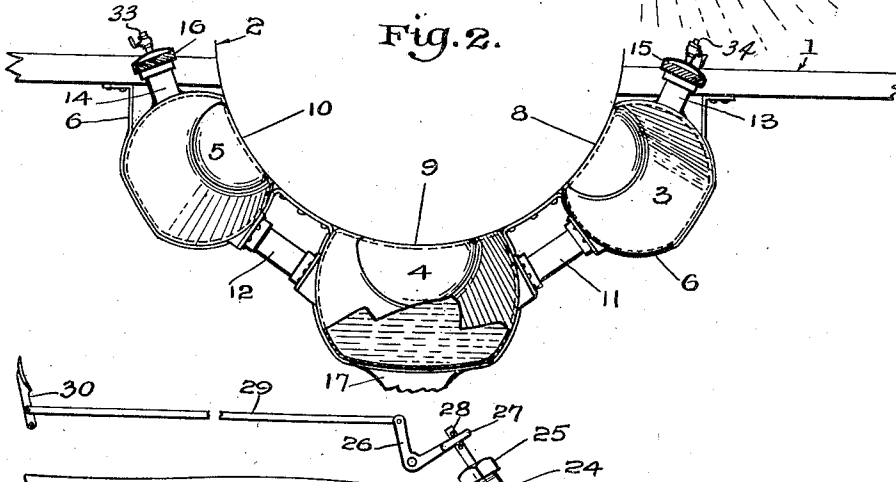
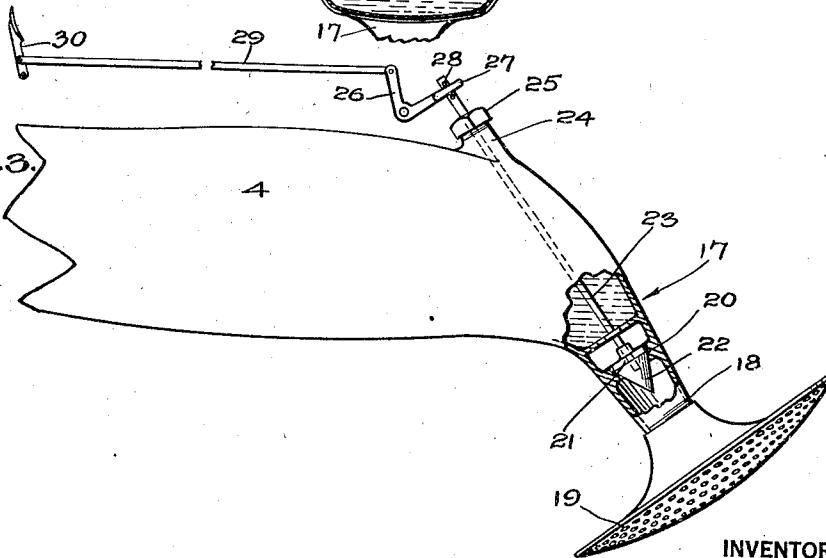


Fig. 3.



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APPARATUS FOR DISTRIBUTING A FIRE PREVENTING AND EXTINGUISHING COMPOSITION.

Application filed July 23, 1925. Serial No. 45,477.

This invention relates to apparatus for distributing a fire preventing and extinguishing composition.

Broadly the present invention consists of a means for spraying a fire-extinguisher from the air, by means of storage tanks borne by airplanes, these tanks being situated below and at the sides of the fuselage in such a manner as to affect but slightly, if at all, the gravity of the machine under flying conditions, the tank arrangement being preferably three in number, with the largest in the center flanked upon either side by a smaller, these two being of equal size and connected with the central one by passages permitting the liquid to flow from one to the other in maintenance of equilibrium, the central tank being provided with a spraying nozzle directed rearwardly and downwardly from the fuselage and controlled by a valve operable by the pilot of the airplane, for the government of liquid distribution.

This means of fire-fighting, especially forest, grass, or grain fires, has many and decided advantages over the ordinary ones usually employed in such emergencies, providing the fire-fighter with an elevated point of observation, a speedy means for change of field of action, and the facilities for covering speedily large areas with an effective anti-pyro composition, this efficiency being of equal value in fire prevention and fire extinguishment.

The principal object of this invention is the provision of means for showering, or spraying, a fire preventing and extinguishing element upon wooded, or other areas, either as a precaution against fires or for their extinguishment once started.

Other objects and advantages of this invention will appear as this specification progresses and be brought out more clearly in the claim hereto appended.

In the accompanying drawings, forming a part of this specification, and in which similar characters of reference refer to like parts, throughout,

Figure 1 is a perspective view of an airplane in flight, showing an embodiment of my invention in the form of elongated tanks, preferably three in number, secured in place below the lower wing of the plane and connected together by passages, the central tank carrying a spraying nozzle at its rear extremity adapted to spray liquid from the

tanks in a fan-like shower directed rearwardly from the plane to fall in shower upon the area to be covered and controllable by the pilot of the machine;

Figure 2 is an enlarged front elevation, showing the arrangement of the several tanks, together with their connections; and

Figure 3 is an enlarged side elevation, partly in section, of the rear portion of the central tank, showing its reduced neck at its rear end carrying the valve and spraying nozzle, and the valve operating mechanism.

Referring in greater detail to the drawings, and with reference more particularly to Figures 1 and 2, 1 indicates an ordinary airplane comprised of wings and fuselage 2, to which are attached a plurality of elongated tanks 3, 4 and 5 by means of straps, or like supports, 6 and 7, the tanks being constructed to conform as nearly as may be to the contour of the fuselage and fitted tightly thereagainst, as represented at 8, 9 and 10, in Figure 2, and extending therealong with stream-line effect and central diameters greater than those of their extremities.

The smaller tanks 3 and 5 are oppositely disposed along the sides of the fuselage, with the larger tank 4 intermediate these but directly beneath the fuselage and extending in a direction paralleling its longitudinal axis, with capacities, respectively, of 75 gallons each for the smaller ones and 100 gallons for the larger one.

The flanking tanks 3 and 5 are connected, respectively, to the central one 4 by short pipe-line connections 11 and 12, forming a common passageway between all three tanks, permitting the liquid content to flow freely from flanking tanks into the central one when flying in an approximate horizontal plane, or from tank to tank seeking the lower level, when banking, to maintain stable equilibrium.

The smaller tanks 3 and 5 are provided with filling necks 13 and 14 bearing caps 15 and 16, as a means through which the three tanks may receive their liquid charges.

The posterior extension of the tank 4 projects downwardly at an angular inclination to that of the longitudinal axis of the tank, terminating in a goose-neck 17 threaded at its lower end 18 for the reception of a spraying-nozzle 19, as shown in Figures 1 and 3, the neck being provided with a valve-

seat 20 adapted to receive a valve 21 having a weighted lower end 22 adapted to normally hold the valve closed. The valve 21 is actuated by means of a stem 23 extending through a neck 24 and gland-nut 25 to a position to be engaged by and operated through any convenient mechanism, such as a bell-crank lever 26 having a forked end 27 adapted to engage pins 28 extending from the stem 23, the bell-crank being actuated by means of a link connection 29 and foot-lever 30, located within the fuselage and conveniently reached by pilot or observer.

A telescope may be mounted on the fuselage at any point convenient for observation, as indicated by 31, and suitably supported by swiveled bearing and braces 32, for the ready detection and location of fires in areas being flown over.

The filling caps may be provided with valves 33 and 34, through which pressure may be supplied the tanks, if it be desired to employ this means as a force in their discharge, or, through their opening, to provide breathing vents for the admission of atmospheric pressure to facilitate the flow of the contained liquid.

Having thus described my invention, I claim, and desire to secure by Letters Patent:

In a device of the character described, the combination of an airplane, three liquid bearing tanks attached to the outer surface of the fuselage of the airplane and extending longitudinally thereof, the inner walls of said tanks being so shaped as to conform to the contour of the walls of said fuselage and triangularly positioned relative to each other, the flanking tanks being of like form and equal in capacity and positioned in a common plane below and paralleling that of the horizontal plane of the longitudinal axis of the airplane's fuselage, the central tank being of a capacity not less than that of a flanking tank and positioned below the fuselage, the said flanking tanks having connecting passageways leading to said central tank to permit the free flow of liquid from tank to tank to maintain equilibrium, the central tank being provided with a rearwardly projecting neck bearing a valve-controlled spraying nozzle, and valve-actuating connections extending from said spraying nozzle to the cockpit of the airplane for controlling the fluid discharge through said nozzle.

In testimony whereof I have affixed my signature.

JOHN C. KING.