AUTOMATIC FIRE EXTINGUISHER FOR AEROPLANES

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INVENTOR

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The invention relates to improvement in fire extinguishers for aeroplanes, and the object of the invention is to provide for instantaneous distribution of fire-extinguishing fluid to any or all parts of an aeroplane in the event of a crash or dangerously heavy or abnormal landings. The shock of such a crash or landing would automatically and instantly cause the extinguishing fluid to be sprayed under pressure to any part of the engine or aeroplane. The amount of shock required to set the extinguisher in action can be adjusted by the size of the steel ball in glass cup.

I attain this object by the mechanism illustrated in the accompanying drawing, in which—

Figure 1 shows the exterior of the extinguisher and its bracket with the interior detail omitted.

Figure 2 is a sectional view of the interior details omitted from Figure 1.

Figure 3 is a sectional view of the air valve.

Figure 4 is a sectional view of the back of the bracket.

Similar letters refer to similar parts throughout the several views.

Referring to the drawing—

1 represents a round container for the fluid. 2 is a threaded rim permanently connected to container 1. 3 is a threaded cup which entirely closes container 1. 4 is a gasket between container 1 and cap 3. 5 is an outlet tube connected securely and permanently in cap 3. 6 is a valve to retain air pressure in container 1. 7 is an extra safety cap to valve 6. 8 is a bracket to receive bands 10 encircling container 1. 9 the bolt holes in bracket 8 to fix the whole container 1 to any suitable support. 10 the bands encircling container 1. 11 the bolts to tighten bands 10. 12 is a hole through bracket 8 to receive bands 10 and allow the same to be removable so that container 1 can be taken out when required.

In Figure 2, 13 is a threaded and perforated base of tube 5. 14 is a gasket between the threaded base 13 and glass cup 15. 16 is a threaded flange rim which holds securely glass cup 15 to base 13. 17 is a perforated guard or part of base 13 to prevent tube 5 from becoming choked with glass and to guard steel ball 18. 18 is a steel ball, free in glass cup 15 which breaks the glass cup 15 on receiving sufficient shock, and allows liquid to be forced through tube 5.

Figure 3. Air valve. 19 is a steel ball which acts under pressure of spring 20. 20 is a spring under ball 19 forming valve. 21 is a cap threaded to bottom of valve 5 which retains spring 20. 21 is a gasket between cap 7 and air valve 6.

Figure 4. End view of bracket 8, omitted in Figure 1.

I claim:

In a fire extinguisher, a container for a fire extinguishing medium under air pressure, a cap threaded to the container, a fluid outlet tube extending through the cap and extending into the extinguishing fluid, a base threaded to the outlet tube, a glass cup, a threaded flange rim which secures the open end of the said glass cup to the said base and seals the exit to the outlet tube, a steel ball within the glass cup and adapted to break the cup on severe shock to the extinguisher to vent the extinguishing fluid under pressure.

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