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LANYARD

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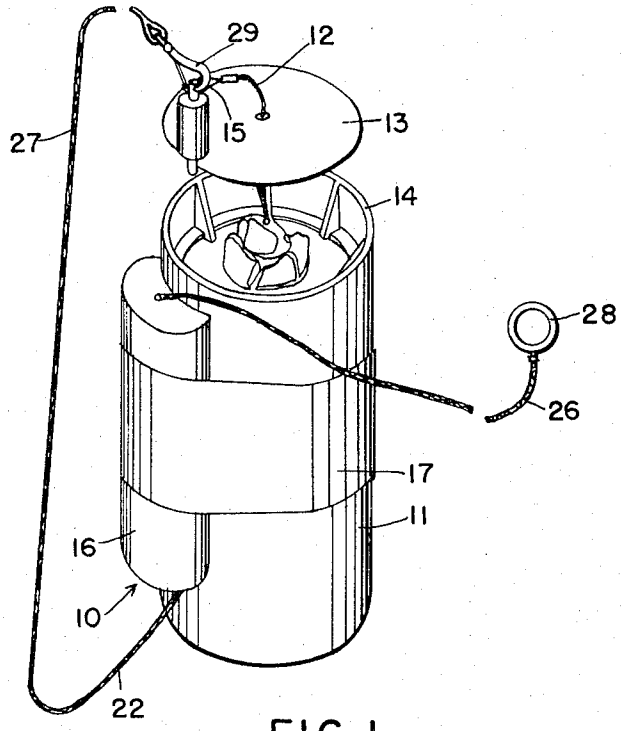


FIG. 1.

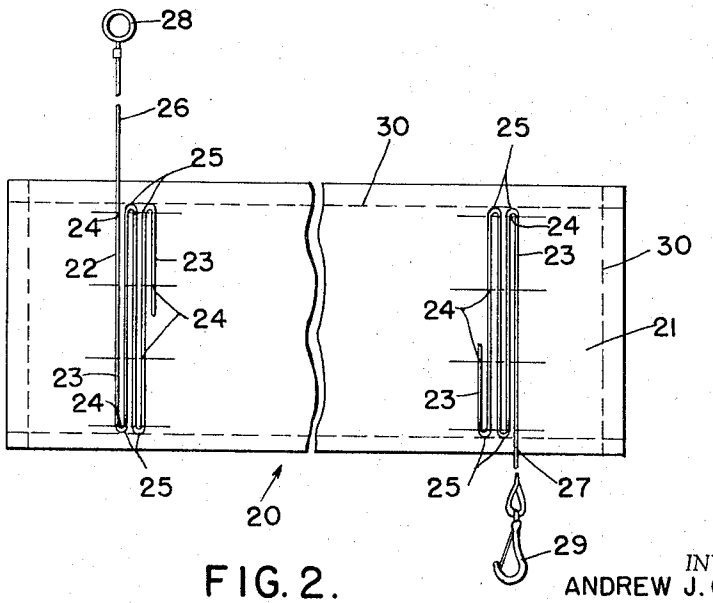


FIG. 2.

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LANYARD

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5 Claims. (Cl. 89—1.5)

This invention relates to lanyards and, more particularly, to a munition launching arrangement that facilitates launching a munition such as a flare from an aircraft, particularly from helicopters with which extensive flare use has developed in the present-day conflict.

The use of conventional wire spools to enable pay-out for such flare use has been unsatisfactory in that a particular launchh orientation of the flare was required.

One of the objects of the invention is to provide a munition launching arrangement in which the pay-out characteristics of a compactly arranged cable are not dependent upon launch orientation of the munition.

Another object of the invention is to provide such a launching arrangement which may be safely operated at random launch or discharge orientation.

In one aspect of the invention a belted lanyard is provided to launch munitions from an aircraft and in which there is a flexible belt with a substantial length of wire threadedly stitched thereto, the wire having a substantial central portion, including a plurality of return bends threadedly secured to the belt, and a pair of end portions one of which having means for connection to and actuation of a munition igniting means, and the other end portion having means for connecting the wire to an aircraft frame member.

These and other objects, advantages and features will become more apparaent from the following description and accompanying drawings in which:

FIG. 1 is an exploded perspective view of a munition launching arrangement embodying the principles of the invention.

FIG. 2 is a plan view of an opened belted lanyard of the FIG. 1 arrangement.

In the munition lanuching arrangement shown generally at **10** (FIG. 1) a flare **11** has an ignition line **12** extending upwardly from the central portion of the flare body through a centrally apertured existing disc **13** that upon assembly is suitably secured to the top outer wall portion **14** of the flare **11**. One end of the ignition line **12** is appropriately secured to a fuze arming train (not shown) and the free end passing through disc **13** terminates in an appropriate loop **15**.

A heat sealed package **16** of plastic tubing containing a belted lanyard which will be more fully described hereinafter, is secured to the flare or munition **11** by a pressure sensitive adhesive tape **17**.

The belted wire lanyard, shown generally at **20** (FIG. 2) comprises a lightweight flexible canvas **21** to which a substantial length of braided wire **22** is belted or sewn by cotton thread **24** rated at 4 to 12 pounds test. The wire **22** has a substantial central portion **23**, including a plurality of continuous return bends **25** arranged in zig-zag

formation, threadedly secured to the canvas belt **21** and a pair of end portions **26, 27** that respectively have an attachment means such as a quick disconnect loop **28** for securing or connecting the pay out wire **22** to an aircraft anchoring member or static line (not shown) and a fastener **29** that in turn is secured to the ignition line loop **15** to actuate the munition or flare igniting means.

The canvas belt is hemmed at **30** on the back face along its edges, and the belted lanyard is folded in half three times prior to packaging with the wire end portions **26, 27** protruding at corresponding ends of the sealed package.

By virtue of the foregoing, trouble free pay out of the lanyard is obtained and by which the arming distance of the munition or flare can be substantially increased to meet existing requirements.

Various modifiactions, changes or alterations may be resorted to without departing from the scope of the invention as defined in the appended claims.

I claim:

1. A belted lanyard for launching munitions from aircraft and the like, comprising

a flexible belt with a substantial length of wire threadedly stitched thereto, said wire having a substantial central portion, comprising a plurality of return bends threadedly secured to said belt, and a pair of end portions,

means on one of said wire end portions for connecting said wire to a munition igniting means to actuate the same, and

means on the other of said end portions for connecting said wire to an aircraft anchoring member,

so constructed and arranged that pay-out characteristics of the lanyard are not dependent upon launch orientation of the munition.

2. In a munition launching arrangement having a munition and means for igniting said munition,

a belted lanyard comprising a flexible belt with a substantial length of wire threadedly stitched thereto, said wire having a substantial central portion, comprising a plurality of return bends threadedly secured to said belt, and a pair of end portions,

means on one of said wire end portions connected to said igniting means for actuating the same, and

means on the other of said end portions for connecting said wire to an aircraft anchoring member,

so constructed and arranged that pay out characteristics of the lanyard are not dependent upon launch orientation of the munition.

3. The arrangement of claim **2** wherein said munition is a flare.

4. The structure of claim **3** in which said wire central portion comprises a plurality of continuous return bends arranged in zig-zag formation.

5. The structure of claim **1** wherein said wire central portion comprises a plurality of continuous return bends arranged in zig-zag formation.

No references cited.

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