Dec. 29, 1942. A. R. HOLMES 2,306,442

FUSEE

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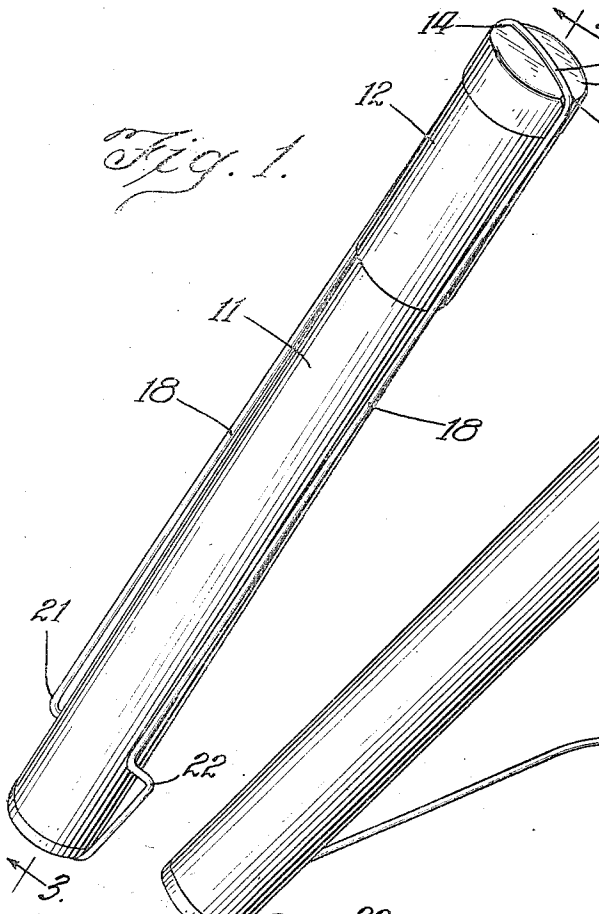


Fig. 1.

Fig. 2.

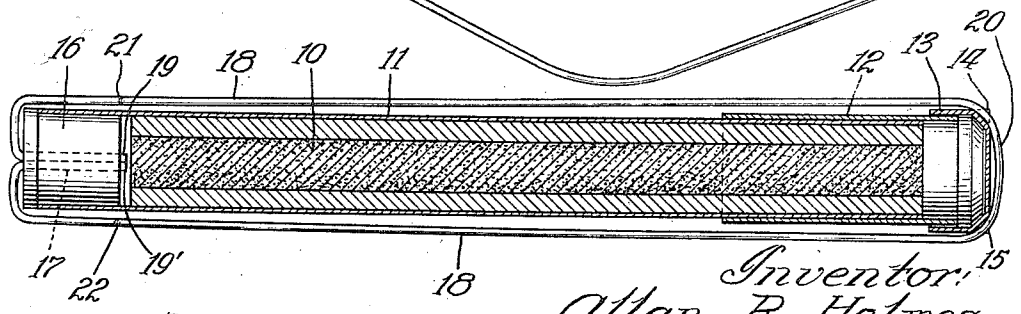


Fig. 3.

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FUSEE

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6 Claims. (Cl. 102—36)

This invention is concerned with fusees of the type used in giving warning signals. It is more particularly directed to fusees used by trucks which have stopped on the highway. Under regulations in numerous jurisdictions, such trucks are required immediately to set out a fusee as a warning signal.

It is desirable, for the satisfactory functioning of the device, that the fusee when burning be tilted at an angle of approximately 45°, and some means must be provided to hold it thus semi-erect.

This has usually been accomplished by a spike fixed in the base of the fusee, but as, when the fusee is burned out, such a spike may remain as a possible traffic hazard, and as the majority of highways used by trucks are of concrete construction, some substitute for the spike is necessary. Some jurisdictions, indeed, have regulations precluding the use of a spiked fusee.

One of the objects of my invention lies in improved means for capping the fusee. As an article of commerce the fusee ordinarily comprises a cardboard tube, filled with pyrotechnic material, having a base portion, usually of wood, and a cap for the other end of the tube with means on its top for igniting the fusee through friction. As the striking medium is exposed, means must be provided to protect it from damp and abrasion. This is usually accomplished by covering the striking end of the cap with a paper protector under which a cambric tape is positioned. The tape is pullable to remove the paper and expose the strikeable end of the cap, so that it may be removed and rubbed against the combustible material in the fusee. The described arrangement is expensive to manufacture, and in my invention I have provided simple means to hold the cap in place and protect its strikeable end. These means form a part of the support when the fusee is in use.

Another object of my invention is to provide cheap and easily attached and adjustable means for supporting the fusee at the desired angle when it is in use.

Other and further objects of my invention will be more particularly described and disclosed in the appended drawing and the specification and annexed claims.

In the drawing:

Fig. 1 is a perspective view of my fusee with the cap in place, prior to its being made ready for use.

Fig. 2 is a perspective view of my fusee ready for use.

Fig. 3 is a sectional view along the line 3—3 of Fig. 1.

Referring to Fig. 3 of the drawing, 10 comprises the pyrotechnic filler of the fusee and 11 is the tubular container therefor. At one end of the tubular container is a cap 12, the end thereof being impregnated with igniting material to be rubbed across the top layer of pyrotechnic material in the open end of the fusee when the cap is removed. Over the end of the cap is a small drawn metal cup 13, provided with a pair of notches 14, 15, particularly observable in Fig. 1.

The base of my fusee is a wooden plug 16, having a hole 17 drilled partially into the outer end thereof. My support 18 comprises a wire member, the two ends 19—19' of which are centered in the hole 17, the loop 20 thereof being bent around the end of the cup 13 and being held in position by the notches 14, 15 thereof. The support 18 is of such a length that when drawn up in assembly, as hereinafter described, it will hold the cap 12 and cup 13 tightly in position through engagement of the support 18 with the notches 14, 15.

To use the fusee, a little manual pressure should be applied to remove the loop end 20 of the support 18 from the notches 14, 15 of the cup 13, and the support 18 is then bent away from the fusee to the desired angle as shown in Fig. 2. The operator then grasps the support in either hand about half way between its ends and pulls outwardly, the support taking the lozenge shape shown in Fig. 2. It will thus be seen that I provide a substantial supporting base or framework capable of maintaining the fusee in the desired position and at the desired angle against any ordinary disturbance, as wind.

At 21 and 22, Fig. 1, are a pair of elbows in the support. These are formed in drawing the loop of the support tightly over the cap in assembly, and they also provide means for adjusting the support 18 to any variations in the ground so that the fusee can be set properly to retain an erect position.

While I have shown and described a construction which admirably fulfills the objects of my invention primarily enumerated, it is to be understood that the above description is given by way of illustration and not of limitation, and numerous changes in details of construction and arrangement may be effected without departing from the spirit of the invention, especially as defined in the appended claims.

Having fully described my invention, I claim:

1. A spikeless fusee, comprising a tubular con-

tainer, a plug permanently affixed to one end thereof, pyrotechnic material within said container, a removable cap at the other end thereof, and supporting and retaining means affixed to said plug and tautly encircling said cap when said fusee is not in use, said supporting and retaining means being manually bendable away from said cap and outwardly to increase its shortest dimension into a frame support for said fusee.

2. An article of manufacture comprising a tubular container having a permanent base and removable cap, a retaining means for said cap comprising a loop of wire or the like encircling said cap and affixed to said base, and constructed so as to form a supporting framework when removed by manual pressure from its retaining position by bending the same away from the axis of said container and outwardly to increase the shortest dimension of said retaining means.

3. A spikeless fusee comprising a cylindrical container, a loop-shaped structure of wire or the like, one end of said loop being affixed to one base of said container, the other end of said loop encircling the opposite base of said container and being held thereagainst by pressure resulting from the formation of offset portions therein to shorten the effective length of said loop after it has been placed in position around said container in assembly, said loop being manually removable from said opposite base and being constructed to permit expansion thereof into a framework for supporting said cylindrical container in a semi-upright position.

4. A spikeless fusee comprising a tubular container, a plug for one end thereof, a striking medium at the other end thereof, a removable protective cap for said striking medium, and a wire loop having its ends anchored in said plug, the major portion of said loop being of a configuration to form a coplanar stable support for said container, said wire loop being constructed of a readily deformable material formed originally in a position wherein it engages the side walls of said container and said cap to hold the latter in place, and from which original position it may be manually bent into its desired supporting configuration.

5. A spikeless fusee comprising a cylindrical container, a notched metal protecting cap for the striking end thereof, and a wire loop affixed to the base thereof, the major portion of said loop being offset from that portion adjacent to said base to form a coplanar support for said fusee, the plane of which support will not intersect said container, said wire loop being originally in a position wherein it engages the notched portions of said metal protecting cap to hold the latter in place, and from which original position it may be manually bent into its desired supporting configuration.

6. A spikeless fusee comprising a tubular member, a protective cap for the striking end thereof, a centrally apertured plug for the base thereof, and a support comprising a wire loop normally disposed adjacent said tubular member and having its ends extending into said apertured plug, those portions of said loop adjacent the under surface of said plug being disposed to permit of torsional deformation thereof when said loop is angularly displaced from a position wherein it engages said protecting cap and holds the same securely against said tubular member, into a position wherein it serves as a framework to support said tubular member in a semi-upright position on a horizontal surface.

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