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G. D. McKOWN

2,807,208

FUSEE LIGHTER

Filed May 15, 1956

FIG. 1

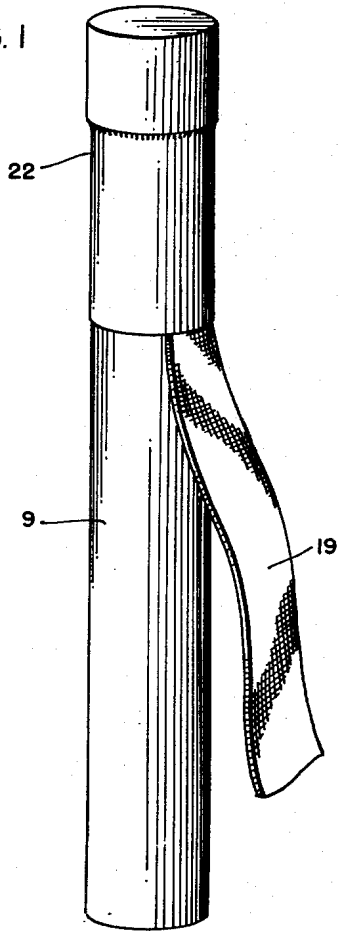


FIG. 2

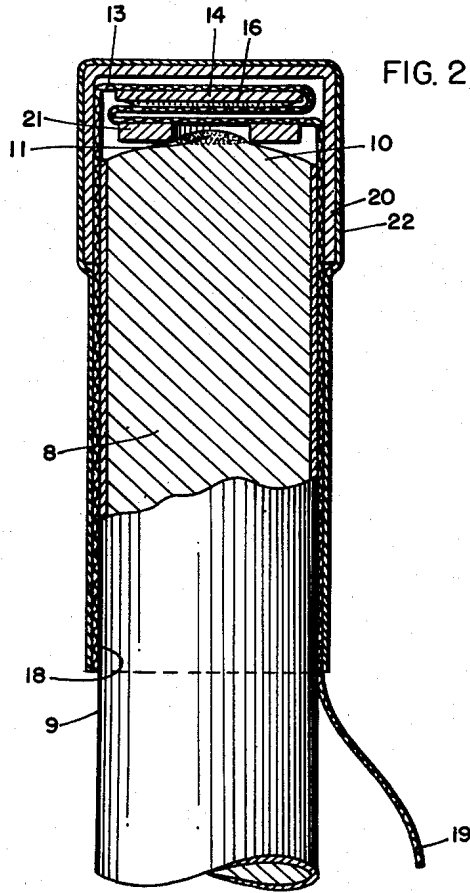
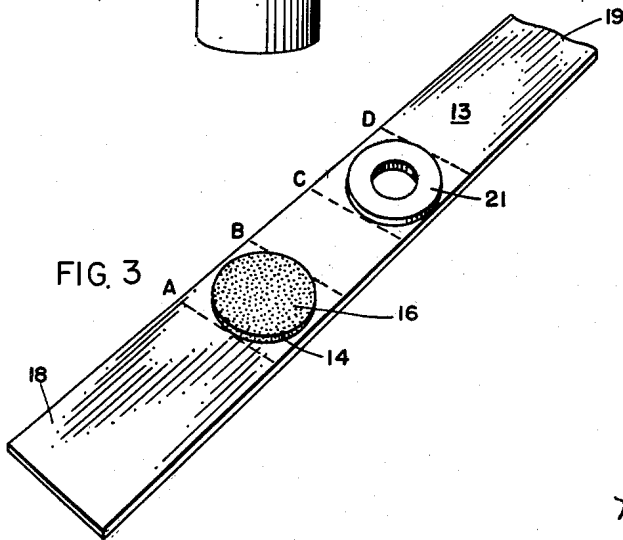


FIG. 3



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2,807,208

FUSEE LIGHTER

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2 Claims. (Cl. 102—37.8)

This invention relates to an improved means for igniting or lighting fuses of the type described in Patent No. 2,470,358, and generally employed for producing a colored fire utilized as a visual warning signal.

It is an object of the invention to provide an improved lighting or igniting attachment adapted to form a part of the fusee and which can be more quickly actuated for igniting the fusee body to permit the visual warning signal produced thereby to be rendered operative in a minimum of time.

It is another object of the invention to provide an improved lighter or actuating means for a fusee which can be more quickly actuated with safety and which is so constructed that prior to use there is no danger of the fusee body being inadvertently ignited due to negligence or improper handling.

It is a further object of the invention to provide an igniting means for a fusee having a safety device or protective member which in the event of accidental displacement can be easily and conveniently replaced.

Various other objects and advantages of the invention will become apparent from the following description and drawing. The latter illustrates a preferred embodiment of the invention in which:

Fig. 1 is a perspective view showing the fusee body with the igniting attachment fully assembled thereon;

Fig. 2 is a longitudinal, central sectional view of the igniting attachment fully assembled on the fusee body; and

Fig. 3 is a plan view of the igniting attachment.

In accordance with the invention the aforementioned objects are accomplished by an improved lighter or igniting means for a fusee comprising a flexible tape, one end of which is bonded to the fusee and which carries thereon a striking element and a protective member, said tape being folded so as to interpose the protective member between the striking element and the ignitable head of the fusee.

Referring to the drawings, the numeral 8 designates generally a fusee body which is formed of a slow burning composition characterized by the emission of a colored light and which is molded into an elongated cylindrical form and enclosed, except for its upper end, in a tube or coating of a suitable protective material 9 which will likewise burn or melt readily when the body 8 is ignited. As seen in Fig. 2, the fusee body 8 has a convex upper end 10 which protrudes slightly above the open upper end of the tube 9 and at least the top central portion of which is coated or otherwise provided with a match head or similar igniting material 11.

The lighting attachment includes an elongated strip of a relatively strong and flexible fabric 13 such as muslin. A disk 14 is secured by a coating of glue or other bonding means to one side of the strip or tape 13 so as to be closer to one end than to the other end thereof. The outer or exposed side of the disk 14 has a coating 16 suitably secured thereto of a striking material such as red phosphorus which when scraped across the match head material 11 will cause the latter to ignite.

A protective member such as an annular ring or washer 21 of cardboard, wood, fabric or other nonsparking material is secured by a coating of glue or other bonding

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means to the side of the tape 13 which carries the disk 14 but at a distance more remote from the end 18. The washer 21 is preferably the same diameter as the disk 14, and the space on the tape 13 between the two peripheries is about the same as that diameter. The hole in the washer 21 is large enough to enclose the match head material 11.

The washer 21 is fitted over the match head material 11 and the tape 13 is folded on the lines A, B, C, and D so that the disk 14 is aligned above the washer 21 and the ends 13 and 19 depend therefrom along opposite sides of the tube 9. The shorter end 13 is suitably secured to the tube 9 by an adhesive or by the subsequently described paper bonnet 22.

The top of the fusee and parts thereon are covered by a cylindrical cap 20 of paper or the like. The cap 20 is held in place by a wrapper or bonnet 22 of paper or the like which is bonded to the tube 9 and cap 20 with an adhesive. The bonnet 22 extends down over the end 18 of the tape 13 but leaves the end 19 exposed so as to provide a tab readily grasped between the fingers.

To ignite the fusee it is held in one hand of the operator near its base, pointed away from the operator's face and body. The exposed end 19 of the tape is then grasped with the other hand and pulled upward to remove the cap 20. This action also results in the disk 21 being pulled from its protective position between the elements 11 and 16. The tape 19 is then pulled towards the operator's body, and held firmly while the fusee is given a slight twist so as to scrape the igniting material 11 against the striking surface 16, thus igniting the igniting material 11 and in turn the fusee body 8. The ignited fusee is held for 5 to 10 seconds before dropping.

The invention provides an improved lighting or igniting attachment for a fusee which can be quickly actuated. A single outward pull on the exposed tab of the tape not only removes the wrapper and cap but also removes the protective member between the ignitable end of the fusee and the striking material. Furthermore, since the protective member is attached to the tape, it is conveniently and easily replaced in its protective position in the event of accidental displacement.

The invention is hereby claimed as follows:

1. In a fusee lighter, in combination with a fusee body having igniting or match head material fixed to one end thereof, a flexible tape having one end bonded longitudinally to the fusee body, a striking element carried by said tape and disposed over the end of the fusee body containing the igniting or match head material and disposed in opposed relationship thereto, a protective member carried by said tape and interposed between the striking material and match head material, and a wrapper of a readily tearable material enclosing said end of the fusee body and the portions disposed therebeyond, the opposite end of said tape being longer than the first mentioned secured end thereof to fold with said member in the interposed position and to protrude beyond the open end of said wrapper to form a tab adapted to be manually engaged and pulled in a direction away from the fusee body and for removing said member interposed between the striking surface and igniting material whereby said tab end of the tape may be swung relatively to the fusee body for scraping the striking element across the igniting material for igniting the latter and the adjacent portion of the fusee body.

2. A fusee lighter according to claim 1 in which said protective member is in the form of a washer, one face of which is secured to the tape.

No references cited.