F. L. WANKLYN.

RAILWAY SIGNAL FUSEE.

APPLICATION FILED MAR. 18, 1920.

1,367,903. Patented Feb. 8, 1921.

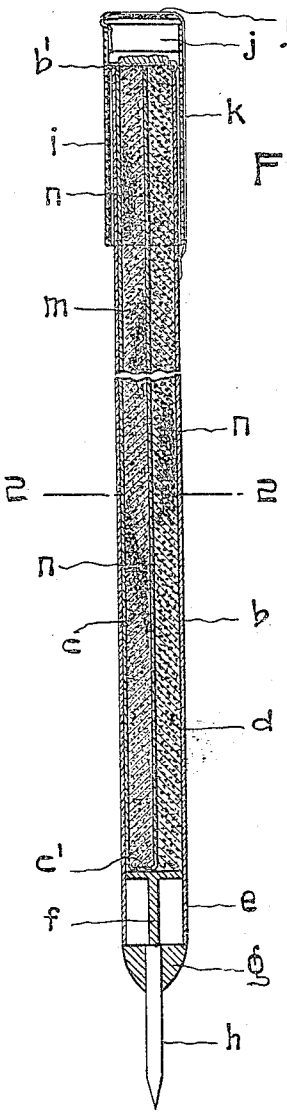
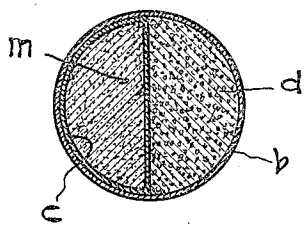


Fig-1.

Fig-2.



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RAILWAY SIGNAL-FUSEE.

1,367,903. Specification of Letters Patent. Patented Feb. 8, 1921.

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To all whom it may concern:

Be it known that I, FREDERIC L. WANKLYN, of the city of Montreal, county of Hochelaga, Province of Quebec, Dominion of Canada, financier, have invented certain new and useful Improvements in Railway Signal-Fusees; and I do hereby declare that the following is a full, clear, and exact description thereof.

The invention relates particularly to fusees of the time burning type adapted to produce an intermittent flare of light or a continuous light. Fusees of this type have been more or less effective in foggy weather and after dark, but during the daytime and particularly when there is sunlight they are not efficient. To overcome this defect is the object of my invention and to this end I supplement the flaring or illuminating fusee with a smoke producing element.

For full comprehension however of my invention reference must be had to the accompanying drawings in which similar reference characters indicate the same parts and wherein:

Figure 1 is a longitudinal vertical sectional view of a fusee constructed according to my invention, and

Fig. 2 is a transverse sectional view thereof taken on line 2—2 Fig. 1.

My improved fusee consists of a tubular case *b* containing a half round chamber *c* preferably consisting of sheet metal, tin coated or galvanized, for instance, closed and perforated at one end c^1 while the opposite end is open. The balance of the interior of the case is also, consequently, of half round form and presents a chamber *d*. This casing *b* is extended upwardly beyond the chamber *c* sufficiently to be closed over the circumferential edge of the chamber *c*, as at b^1, while the opposite end of the casing projects beyond the closed end of the chamber *c* to serve as a sleeve *e* adapted to fit over and be fastened upon the reduced portion *f* of a relatively heavy head *g* carrying a spike *h*. The end of the device opposite to the spike carries a detachable cap *i* having a wooden head *j* provided with an igniting substance g^1. This cap is held in place by a sealing tape *k*.

The chamber *c* is charged with a slow burning smoke producing mixture *m* while the chamber *d* is charged with any well known light producing mixture. After the chambers *c* and *d* are charged and the cap *j* is sealed in place the flare is ready for distribution. When using the flare the cap is displaced by ripping off the ribbon *k* and pulling off the cap which is struck on the end of the flare, thus igniting the substance g^1 by which the smoke and light producing mixtures are in turn ignited. The flare is then thrown to the track, the weighted spiked end sticking into the tie or ballast and causing the flare to stand erect with the effect that in addition to a strong light being produced a column of smoke readily visible in the daylight also appears, thus providing an effective signal for both daylight and dark. In order to produce a pungent odor a small quantity of red arsenic or other inflammable substance is mixed with either the smoke or light producing mixture or both as indicated at *n*.

What I claim is as follows:

1. In a fusee for the purpose set forth the combination with a carrier having a weighted spike end, of a chamber of refractory material and containing a slow-burning smoke-producing substance, and a chamber containing an inflammable light-producing substance.

2. In a fusee for the purpose set forth the combination with a carrier having a weighted spike end, of a chamber of refractory material and containing a slow-burning smoke-producing substance, and a chamber containing an inflammable light-producing substance, and an odor-producing substance in one of said chambers.

In testimony whereof I have signed my name to this specification in the presence of two witnesses.

FREDERIC L. WANKLYN.

Witnesses:

GORDON G. COOKE,

WILLIAM J. C. HEWETSON.