

(No Model.)

J. M. GRAHAM.  
DETONATING RAILROAD SIGNAL.

No. 307,293.

Patented Oct. 28, 1884.

FIG. 1.

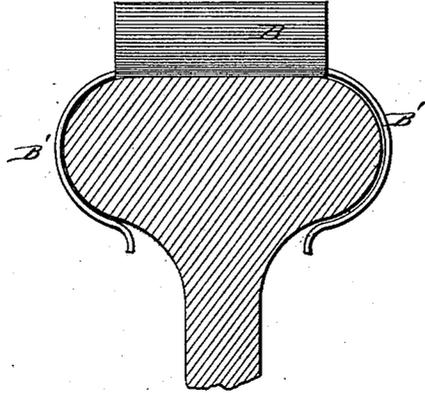
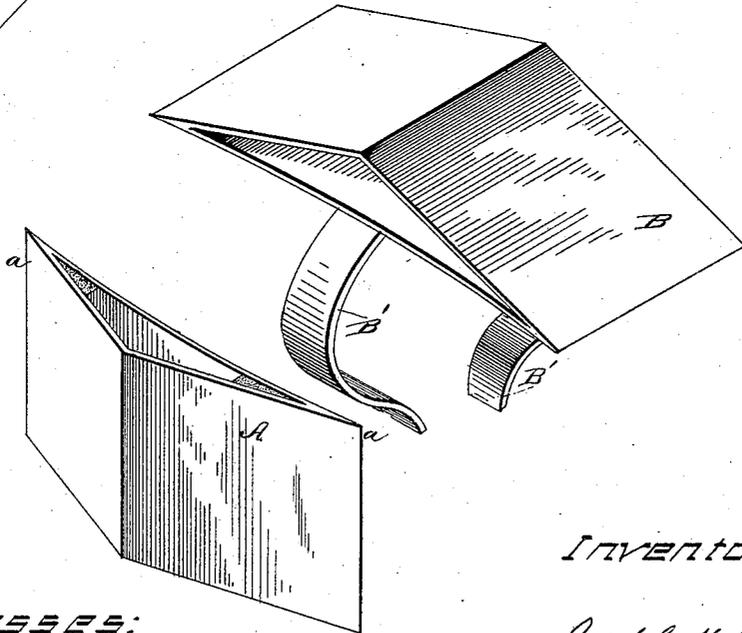


FIG. 2.



WITNESSES:  
*H. C. McArthur,*  
*Chas Kressmann*

INVENTOR.  
*Joseph M. Graham*  
*per*  
*H. Harrison*  
ATTORNEY.

# UNITED STATES PATENT OFFICE.

JOSEPH M. GRAHAM, OF FARGO, DAKOTA TERRITORY.

## DETONATING RAILROAD-SIGNAL.

SPECIFICATION forming part of Letters Patent No. 307,293, dated October 28, 1884.

Application filed December 11, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH M. GRAHAM, a citizen of the United States, residing at Fargo, in the county of Cass and Territory of Dakota, have invented certain new and useful Improvements in Detonating Railroad-Signals, of which the following is a specification, to wit:

This invention relates to an improvement in railroad-torpedoes; and it consists in the peculiar construction and arrangement of the same, substantially as and for the purposes hereinafter more fully set forth and claimed.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction, referring to the accompanying drawings, in which—

Figure 1 is a cross-section of a railroad-rail with one of my torpedoes attached, and Fig. 2 is a perspective view of the separate parts of the device.

A represents a box or receptacle made of sheet metal, in the form of a double wedge having a thin edge at each end, as at *a a*. B is a similarly-shaped case or cover made to fit the box closely, and provided with a strip of spring metal, B', which is formed to fit and tightly clasp the head-flange of the rail, as clearly shown in Fig. 1. The detonating material—preferably a small strip of detonating-tape—is placed in each end of the box A in the points of the wedges *a a*. The cover or case B is then

placed over it and sealed with cement or other material to render it water-tight.

In placing the device upon a track the ends of the spring B' may be sprung aside and over the rail; but I prefer to place it against the edge of the head-flange, and by a slight push the shape of the rail forces apart the springs and allows the device to slip to place, where it is securely held. It cannot be blown off by heavy winds, and the wedge form of the ends prevents its being caught and swept aside by a snow-plow, brush, or other devices used upon trains, while the detonating material, being all contained in the thin ends of the case, will always be exploded as soon as a wheel passes over it.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

In a detonating railway-signal, the box A, formed in the shape of a double wedge having the fulminating material placed in its points, in combination with a case or cover, B, of similar form, having the spring-clip B', substantially as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JOSEPH M. GRAHAM.

Witnesses:

W. C. McARTHUR,  
CHAS. KRESSMANN.