

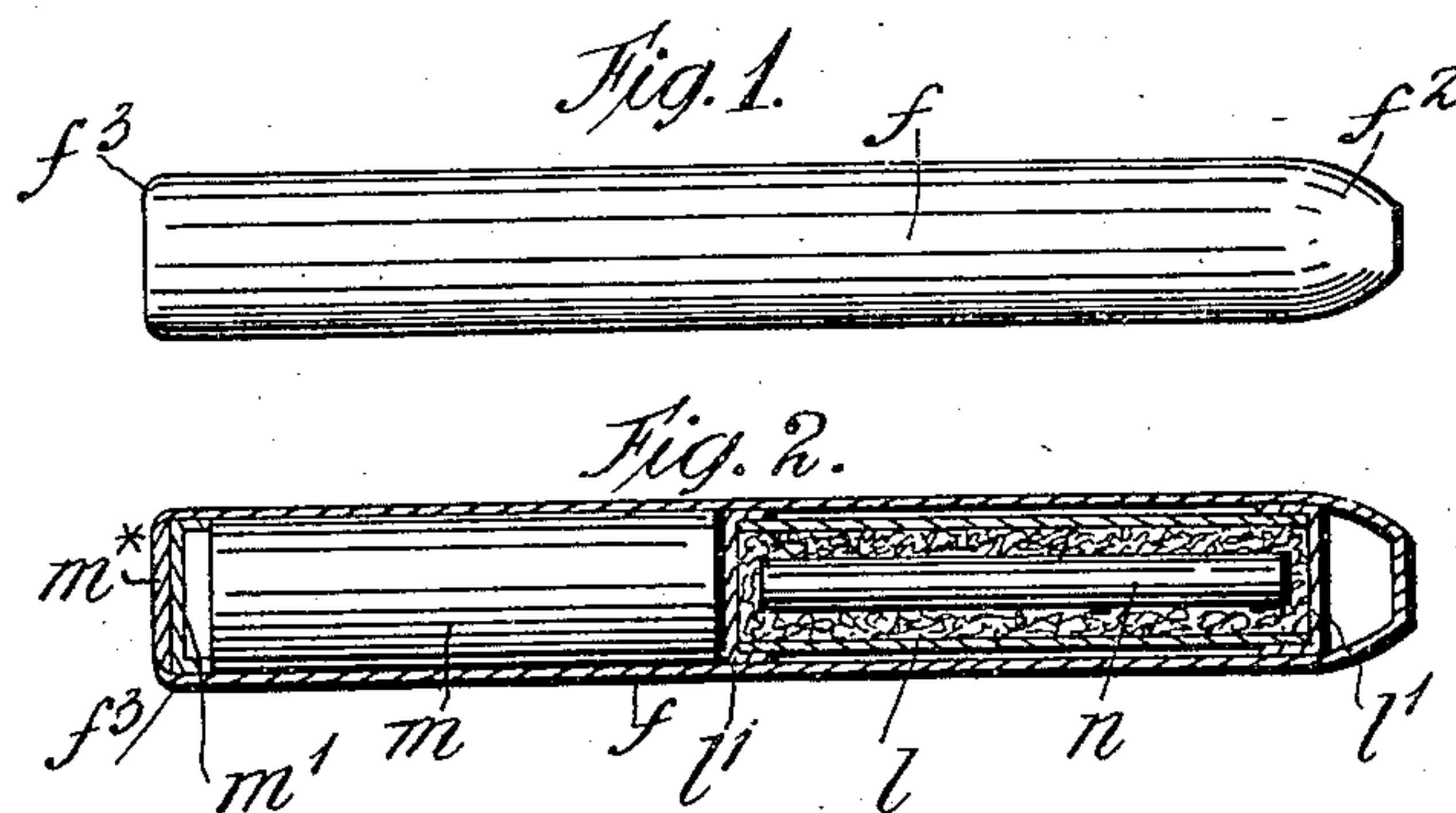
No. 845,116.

PATENTED FEB. 26, 1907.

J. PARKER.

DETONATOR FOR RAILWAY SIGNALING PURPOSES.

APPLICATION FILED SEPT. 10, 1906.



Witnesses.

Ferry M. Goodwin.
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Inventor John Parker.

by His Attorney.

Benj. V. King

UNITED STATES PATENT OFFICE.

JOHN PARKER, OF HONOR OAK PARK, LONDON, ENGLAND.

DETONATOR FOR RAILWAY SIGNALING PURPOSES.

No. 845,116.

Specification of Letters Patent.

Patented Feb. 26, 1907.

Application filed September 10, 1906. Serial No. 334,032.

To all whom it may concern:

Be it known that I, JOHN PARKER, a subject of the King of Great Britain and Ireland, and a resident of 27 Agnew road, Honor Oak Park, in the county of London, England, have invented certain new and useful Improvements in Detonators for Railway Signaling Purposes, of which the following is a specification.

10 This invention of improvements in detonators is characterized by the same being cylindrical in shape and of a pencil or cartridge form in outward appearance. It is preferably made of brass, and to obtain a perfect detonating action there is located centrally and longitudinally therein a suitable priming—such, for instance, as fulminate of mercury or equivalent—inclosed in a glass tube or other suitable protective covering, surrounded or
20 not by powder, the open end of the casing being closed by a wood or equivalent plug and the end of the brass tube clenched thereon, or the sparking or explosion of the detonator can be rendered sensitive by having the central priming material so adapted that the slightest action of the passing wheels of a train will cause the necessary explosion.

In the accompanying drawings, Figures 1 and 2 illustrate a preferable form of detonator or cartridge. The same is formed cylindrical in shape and consists of a metal (preferably brass) case f with a taper nose or head f^2 and flat base f^3 . Within said case and toward the front part thereof is arranged a
35 metal case closed at the ends by caps l' l' , said case l being kept in position by a wooden plug m , covered at its outer end with a metal cap m' , round the edge of which is bent the edge or end f^3 of the case f , leaving a slight
40 space, which is then filled up with solder m^*

or equivalent material, rendering the casing air and water tight.

Within the case l is a small glass tube n , closed at its ends and filled with a mixture of chlorate of potash and sulfid of antimony in 45 the proportions of three of chlorate of potash to one of antimony or with a mixture of chlorate of potash and sulfur in equal proportions, the space between the glass tube n and case l being filled with powdered sulfur 50 or ordinary gunpowder.

In some cases the outside powder (gunpowder or sulfur) may be dispensed with and the glass tube containing the priming made the full interior size of the metal case, the detonator in either method of construction being exploded by the friction set up by the smashing of the glass tube when the forward end of the detonator is under compression—
60 for instance, the weight of the passing train or when struck a heavy blow.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

A detonator or cartridge for use in railway 65 signaling apparatus characterized by a pencil-shaped case, a sealed glass tube located therein at the forward end containing a priming composition, a wooden plug at rear end of said outer case to keep the glass tube in position and means whereby the detonator is rendered air and water tight substantially as described with reference to the accompanying drawings.

In testimony whereof I have affixed my 75 signature in presence of two witnesses.

JOHN PARKER.

Witnesses:

BENJ. THOS. KING,
ROBT. HUNTER.