

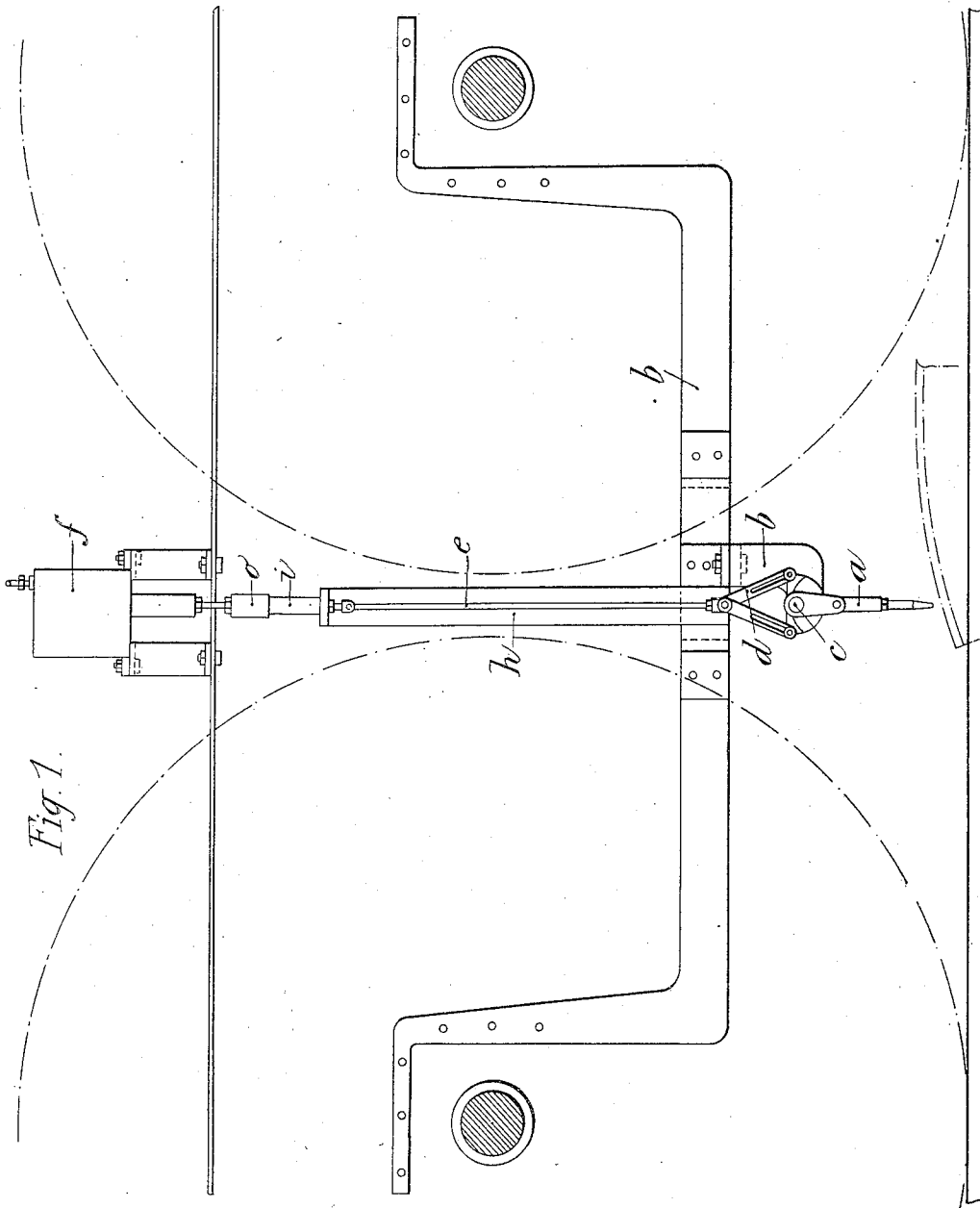
J. P. DE BRAAM.
 APPARATUS ON RAILWAY VEHICLES FOR THE PURPOSE OF PREVENTING THE PASSING OF
 SIGNALS WHEN AT DANGER.

1,064,701.

APPLICATION FILED SEPT. 28, 1911.

Patented June 17, 1913.

3 SHEETS—SHEET 1.



WITNESSES

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3 SHEETS-SHEET 2.

Fig. 3.

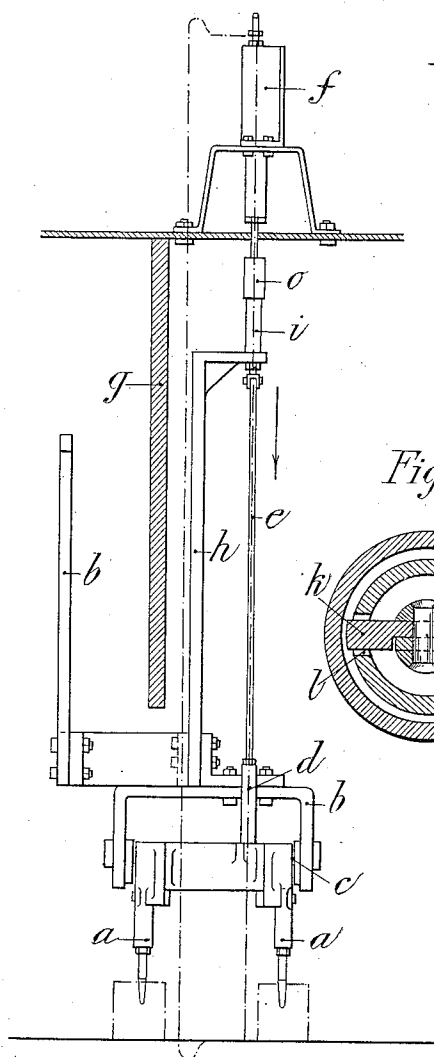
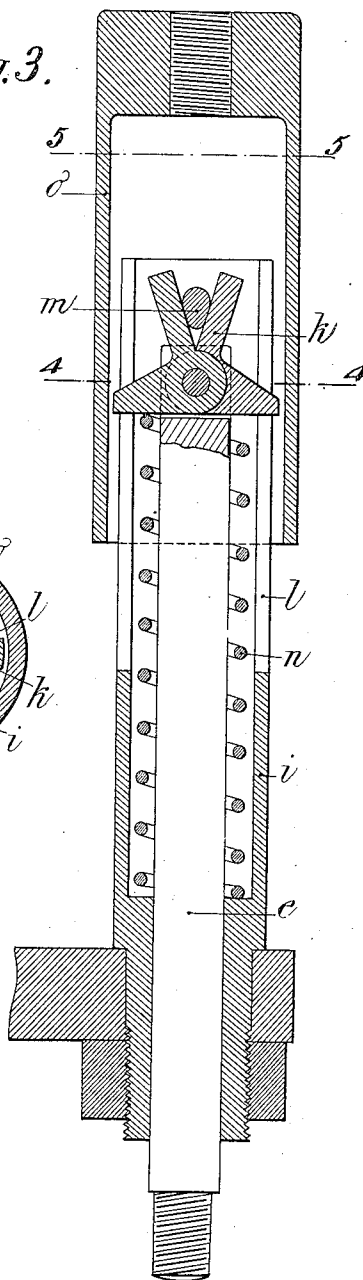


Fig. 4.



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Technical drawing of a mechanical assembly in cross-section. The assembly consists of a central shaft passing through a housing. At the top, there is a component labeled o (possibly a cap or seal). Below it, a component labeled m is shown. A component labeled h is positioned below m . The central shaft is labeled l . The housing is labeled n . The shaft is surrounded by a component labeled i . The shaft is secured by a component labeled e . The shaft has a threaded section at the bottom.

A technical drawing of a cross-section of a mechanical component, likely a valve or plug. The drawing shows a circular outer shell with a central vertical passage. A horizontal crossbar is positioned across the center. Various parts are labeled with letters: 'o' at the top, 'k' on the left and right sides, 'l' on the left and right sides, 'm' at the bottom left, and 'i' at the bottom right. The drawing uses hatching to indicate different materials or sections.

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APPARATUS ON RAILWAY-VEHICLES FOR THE PURPOSE OF PREVENTING THE
PASSING OF SIGNALS WHEN AT DANGER.

1,064,701.

Specification of Letters Patent. Patented June 17, 1913.

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To all whom it may concern:

Be it known that I, JACQUES PIERRE DE BRAAM, subject of the Queen of Holland, residing at 5 Rue Davioud, Paris, France, have invented certain new and useful Improvements in Apparatus on Railway-Vehicles for the Purpose of Preventing the Passing of Signals when at Danger, of which the following is a specification.

The apparatus provided hitherto on railway vehicles for operating safety devices for preventing the passing of danger signals have the drawback that on account of their arrangement on spring-supported parts of the vehicle they are forced to participate in the vibrations and jerks caused by the spring suspension. It may therefore happen that the tappet levers for operating the safety device can pass over the tappets placed on the track or along rails when the signal is at danger without touching said tappets.

This invention has for its object to provide an improved apparatus of the above type in which this drawback is absent. For this purpose according to this invention the elements (levers or the like) for operating the safety devices are not mounted on a spring-supported part of the vehicle, so that they always remain at the same height above the rails, without being forced to share the vibrations of the spring-supported parts of the vehicle. It is obvious that with this arrangement care must be taken that the connection between the tappet members for operating the safety device and the safety device itself, which latter must be arranged on spring-supported parts, is such that the safety device can move relatively to the elements which are not mounted on spring-supported parts without damaging the various parts and without affecting the functions of the safety device.

In the accompanying drawings:—Figure 1 is a side elevation of the general arrangement of the improved apparatus mounted on a railway vehicle. Fig. 2 is an end elevation and Figs. 3 and 4 are sections of details of the same, Fig. 4 being a section on the line 4—4 of Fig. 3. Fig. 5 is a sectional view taken on the line 5—5 of Fig. 3, and Fig. 6 is a view similar to Fig. 3 showing the parts in the position which they occupy when the rod *e* has been actuated.

As shown in Figs. 1 and 2, the pivoting

tappet levers *a* serving for releasing the safety device are mounted on a frame *b* which in the example illustrated is secured to the axle boxes (not shown) of the driving wheels of the locomotive. The levers *a* are mounted in the ordinary way on a shaft *c* which, according to the direction of travel, of the vehicle acts as one of the two slotted levers *d* through the intermediary of arms, to pull down the rod *e* when the levers *a* strike the tappet placed along the track as shown in dashed and dotted lines in Fig. 1. The rod *e* releases by its pull the safety device such as a brake or signal on the driver's stand. The release is effected through any suitable motion transmission means from a device *f* the design of which does not form any part of the invention so that it is not necessary to give any further details of the same. This device *f* is mounted on frame *g* of the vehicle, which frame rests on springs so that it becomes necessary for the device *f* and the rod *e* to be able to move in relation to each other, insuring at the same time that the pull exerted on the rod *e* is transmitted to the device *f*. In the example shown this requirement is met by attaching a sleeve *i* (Figs. 3 and 4) in which the end of the rod *e* moves, to the bracket *h* mounted on the frame *b* which is not supported on springs. The upper end of the rod *e* is provided with tongs *k* the jaws of which extend through slots *l* provided in the sleeve *i*. The tongs are normally held in the position shown in Fig. 3 by a wedge *m* secured in the upper end of the valve sleeve *i*. A spring *n* holds the rod *e* in its raised position.

The movable part of the device *f* which if required is to be operated by the rod *e* loosely engages by means of a sleeve *o* (Figs. 2, 3 and 4) with the upper end of the sleeve *i*, so that normally there is no connection between the rod *e* and the device *f* and both parts can freely move in relation to each other. As soon however as the rod *e* is pulled downward by the lever *a* striking on a tappet placed along the track, the spring *n* is compressed thus exerting a pressure on the jaws of the tongs *k*. As these tongs are moved down with the rod *e*, thus moving more and more out of the range of the wedge *m*, the tong jaws are forced outward by the pressure of the spring *n* and are thus pressed against the inside of the

sleeve *o*. By this means the rod *e* is coupled to the sleeve *o* and transmits its downward movement thereto and to the movable parts of the device *f* connected therewith, whereby
 5 the safety device is released in the usual manner.

The tongs *k* may be so arranged and constructed that the rod *e* will be coupled to the sleeve *o* immediately after the commencement of the pull on the rod *e*, thus insur-
 10 ing an immediate transmission of the pull to the device *f*. With increase of the pull the coupling between these two parts becomes more secure. When the pull on the
 15 rod *e* ceases, the spring *n* forces the rod upward again and the wedge *m* enters between the upwardly extending expanded arms of the tongs so that the tongs are caused to disengage from the sleeve *o*. The
 20 safety device is then ready for further operation.

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

25 1. In railway controlling apparatus of the character described, in combination, a member adapted to be actuated by a track device, said member being mounted on a portion of the vehicle which is free from spring
 30 support, safety mechanism a second member operatively connected to said safety

mechanism, said member being mounted on support, safety mechanism, a second member said members being normally disconnected from one another, and means adapted to be
 35 actuated by the movement of said first member for operatively connecting it to said second member, whereby movement of said first member will cause said second member to move, thereby actuating said safety mechanism.
 40

2. In railway controlling apparatus of the character described, in combination, safety mechanism, a rod adapted to be actuated by a track device, a sleeve operatively connected to said safety mechanism, said rod and
 45 said sleeve being normally disconnected from one another, tongs connected to said rod and positioned within said sleeve, means normally holding said tongs out of engagement
 50 with said sleeve, whereby said rod and said sleeve are free to move relatively to one another, and a spring adapted to force said tongs into engagement with said sleeve upon
 55 actuation of said rod, whereby said rod and said sleeve will be coupled together.

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

JACQUES PIERRE DE BRAAM.

Witnesses:

LOUIS GARDET,
 HENRI MONIN.