PATENT SPECIFICATION

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Complete Accepted: May 7, 1931.

COMPLETE SPECIFICATION.

Automatic Coupling for Toy Railways.

I, LYNWOOD FERDINAND GARDNER, of 173, 174 and 175, Fleet Street, London, E.C. 4, British Subject, do hereby declare the nature of this invention (which has been communicated to me from abroad by Bing Werke vorm Gebruder Bing Aktiengesellschaft, of 215, Regensburger-Strasse, Nuremberg, Germany, a Joint Stock Company registered under the Laws of Germany), and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

The invention relates to an automatic double-acting coupling for toy railways, in which each half of the coupling is provided with a locking member adapted to be lifted by the coupling hook of the other half and to drop down automatically behind it. The invention differs from such known couplings in that each locking member is in the form of a link, which is made of sheet metal and is mounted for pivotal movement in a plane parallel to the coupling hook of the same half, the long front edges of which hooks are directed obliquely upward, being provided at the upper ends with latching noses. Moreover, each locking member is so arranged that it can swing upwards or downwards, but not drop below the horizontal, so that the loose link cannot hang down and in the case of electric toy railways give rise to short-circuiting through coming in contact with the live central rail.

The invention will be clearly understood from the following description aided by the annexed drawings in which a typical embodiment of the new coupling is illustrated and in which Figures 1, 2 and 3 represent one half of the coupling in side elevation front elevation and plan respectively.

Figure 4 shows an opened half of the coupling in side elevation and Figure 5 shows two interengaging half couplings of two toy railway cars in side elevation whilst Figure 6 is a perspective view of half of a coupling.

A half coupling consists of a strip 2, which is pivotally mounted on the frame 1 or 1*a* (Figure 5) of a car and is provided with a downwardly bent hinge strap 3 or 3*a*, stop 4 or 4*a* and hook 5 with a nose 6 and oblique striking edge 7. A locking member 8 in the form of a link is pivotally mounted in the hinge strap 3 and is provided with a lateral flange 9, an upright arm 10 and a slot 11 (Figure 3).

The coupling operates in the following manner: The strips 2 and 2*a* (Figure 5) are pivotally mounted in known manner about the pins 12, 12*a* on the frames 1, 1*a* of the railway cars. When the two cars come together, the locking member 8*a* strikes against the oblique edge 7 of the hook 5, and the locking member 8 strikes against the oblique edge 7*a* of the hook 5*a*, so that as the cars continue to converge the members 8, 8*a* are swung upwards until they drop behind the hooks 5*a* and 5. In so doing, the upper noses 6, 6*a* of the hooks enter the slots 11 of the members 8*a*, 8 and lock them. The members 8, 8*a* are prevented from hanging down against the live rail of the track when uncoupled by the action of the arms 10, 10*a* the bent upper limbs of which bear against the edges of the stops 4, 4*a*. The lateral flanges 9, 9*a* prevent the members 8, 8*a* from slipping off the hooks 5*a*, 5 during the operation of coupling.

The couplings are detached in a simple manner, by pushing the cars as closely together as possible taking hold of the bent upper limbs of the arms 10, 10*a* in each hand respectively and swinging them back, the members 8, 8*a* thus turning up away from the coupling noses.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, as communicated to me by my foreign correspondent, I declare that what I claim is:—

1. Automatic coupling for toy railways, each half of the coupling having a locking member adapted to be lifted by the coupling hook of the opposite coupling half, and to drop down automatically behind the latter, characterised in that each locking member is in the form of a link of sheet metal, mounted to pivot in a plane parallel with the coupling hook of the same half, the long front edge of

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the latter which slopes in the upward direction, being provided at the top with a latching nose.

2. Automatic coupling for toy railways according to Claim 1, characterised in that each locking member mounted in the hinge strap of the coupling hook is provided with a downwardly directed lateral guide flange and with an upwardly extending arm, the upper limb of which strikes against the edge of a stop provided behind the associate coupling hook and thus prevents the link from hanging down against the live rail.

3. The automatic coupling for toy railways, constructed substantially as described with reference to the annexed drawings.

Dated this 25th day of June, 1930.

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Agent for the said Applicant.

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[This Drawing is a reproduction of the Original on a reduced scale]

Fig. 1

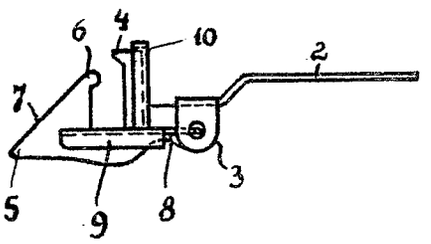


Fig. 2

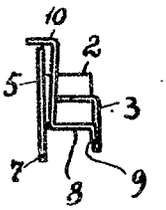


Fig. 3

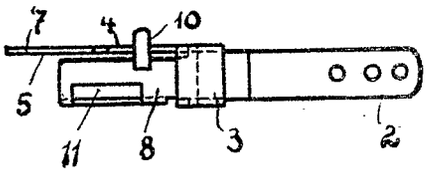


Fig. 6

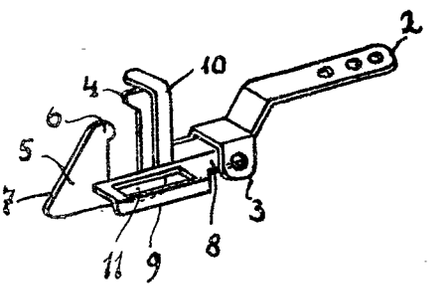


Fig. 4

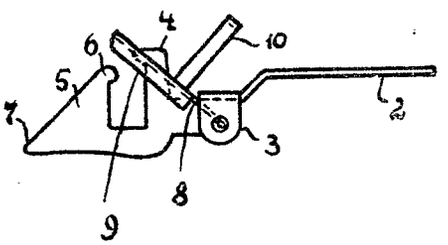
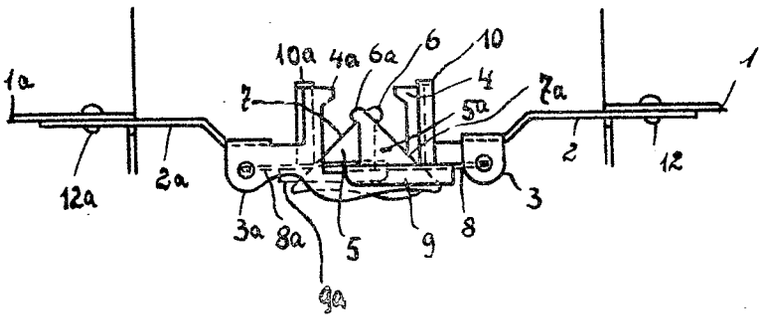


Fig. 5



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