

No. 648,397.

Patented May 1, 1900.

J. B. EAVES.
CAR COUPLING.

(Application filed July 8, 1899.)

(No Model.)

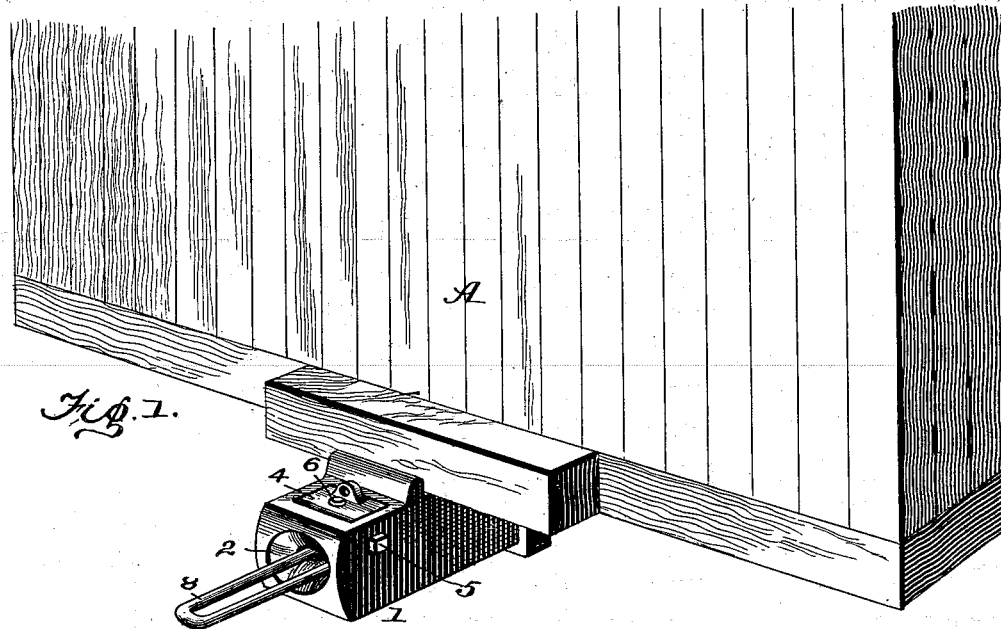


Fig. 2.

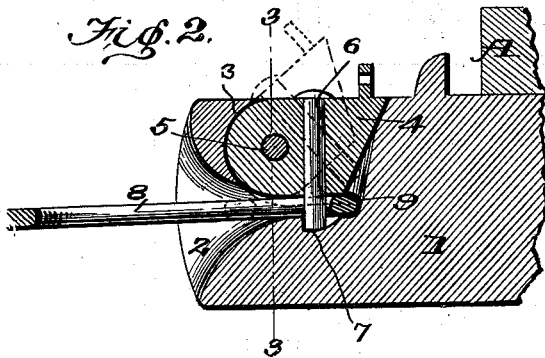


Fig. 3.

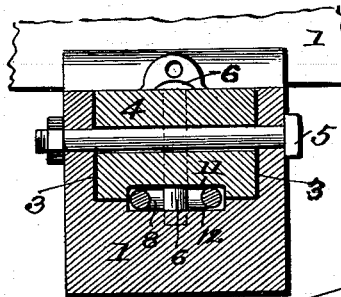


Fig. 5.

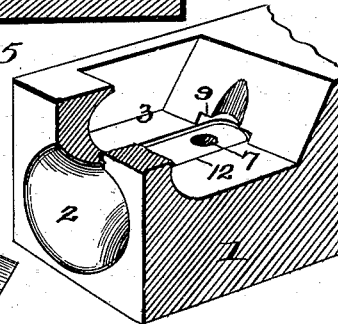
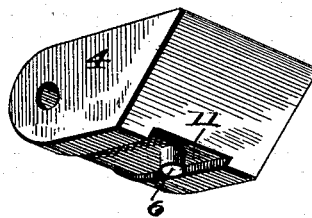


Fig. 4.



WITNESSES:

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JOHN BAXTER EAVES, OF FOREST CITY, NORTH CAROLINA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 648,397, dated May 1, 1900.

Application filed July 8, 1899. Serial No. 723,179. (No model.)

To all whom it may concern:

Be it known that I, JOHN BAXTER EAVES, of Forest City, in the county of Rutherford and State of North Carolina, have invented a new and Improved Car-Coupling, of which the following is a specification.

My invention is an improvement in that class of automatic car-couplings in which the coupling device proper is locked by means of a block or jaw pivoted within a chamber or recess in the coupling-head or draw-bar and adapted to swing vertically for engaging or releasing said coupling device.

The invention is more particularly an improvement upon the coupling for which I have obtained Letters Patent of the United States, No. 598,500, dated February 8, 1898.

The construction, arrangement, and combination of parts are as hereinafter described, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view showing a draw-head of my improved coupling applied to a car. Fig. 2 is an enlarged central longitudinal section of a draw-head, showing the link supported in position to engage another draw-head. Fig. 3 is a cross-section on line 3 3 of Fig. 2. Fig. 4 is a perspective view of the hinged block or jaw. Fig. 5 is a perspective view of the draw-head, a portion being broken away.

The iron draw-head or draw-bar 1 is arranged and supported beneath a car A in the usual way. It is constructed solid or integral and provided with a flaring or conical mouth 2 and with a recess 3 (see Fig. 5) in its upper side for reception of the hinged block or jaw 4. The latter is pivoted at its front end by means of a transverse bolt 5, and said end is also rounded or constructed upon the arc of a circle which fits and seats in a like-shaped cavity in the front end of the aforesaid recess 3. The jaw 4 is provided with a removable pin 6, which passes vertically through it and when the jaw is closed projects below it, as shown in Figs. 2 and 3, and enters a cavity 7, formed at the inner end of the conical mouth 2 and extending below the same. This pin 6 engages the slotted link 8 when the latter enters the draw-head 1—that is to say, as the link 8 enters the conical mouth 3 it strikes against the projecting lower end of

the pin 6 and thus raises the jaw 4, as shown by dotted lines, Fig. 2, and passes beyond the pin into the cavity 9, formed at the rear end of the recess 3 in the draw-head. When the jaw 4 drops back to its normal position, the pin 6 enters the slot in the link 8, thereby automatically locking the latter and completing the coupling operation.

To uncouple, it is obviously requisite to raise the jaw 4 to the position shown by dotted lines, Fig. 2, which may be effected by any suitable means.

As shown in Fig. 4, the under side of the block or jaw 4 is provided with a broad lengthwise channel or groove 11, which coincides with a similar channel 12 in the bottom of the recess 3 of the draw-head. The passage thus formed by the coincident channels 11 and 12 serves to guide the link 8 when entering the draw-head and to hold it in due alinement with the latter, as shown in Figs. 1 and 2, when coupling is to be effected.

In case cars are of different heights a bent link may be employed. The pin 6 may be removed and replaced by another in case of injury. The pins used with ordinary slotted link-and-pin couplings may be employed. Thus my coupling is adapted to utilize such pins and links, so that a considerable economy may be effected.

The pivot rod or bolt 5 fits somewhat loosely in the transverse bore of the jaw 4, so that the latter has sufficient play to allow the circular head of the jaw to seat firmly against the adjacent portion of the draw-head. Hence when draft is applied through the medium of the link 8 the strain is borne by the solid draw-head and not by the pivot.

When the jaw 4 is raised, the shoulder of the draw-head prevents it being thrown beyond an angle of about forty-five degrees. When closed, it lies flush with the top of the draw-head and fills the recess in the latter quite accurately, so that dust and cinders are to a great extent excluded.

In case of an accident whereby cars are overturned the jaw 4 will open by gravity, releasing the link and uncoupling the cars.

It is apparent that the strength and solidity of the draw-head will enable it to withstand the shock of impact when the cars meet, so that supplemental buffers may be dispensed with.

The draw-head 1 may be chambered in rear of the jaw-recess 3 for the purpose of reducing the weight of the same.

My coupling is distinguished by simplicity, strength, durability, the small number of parts, and cheapness of construction, as well as by adaptation for automatic coupling and easy uncoupling.

What I claim is--

1. In a car-coupling, the combination with the draw-head having, in its upper side, a recess which is rounded at the front end, and a channel in its lower side, of the jaw pivoted in said recess and having a channel in its under side, which coincides with that in the head and thus forms a passage adapted to receive and inclose the link, and the coupling-pin held in said jaw and projecting below the same, as shown and described.
2. The improved coupling appliance, comprising the draw-head having a funnel-shaped mouth, a bottom cavity and a recess in its upper side whose front end is rounded, the jaw pivoted removably in said recess, its top surface being normally flush with that of the draw-head, a pin held removably and vertically in said jaw and projecting below

it into the said cavity, the adjacent or meeting portion of the jaw and bottom of the recess in draw-head having coincident channels 11 and 12, as shown and described, for the purpose specified.

3. A car-coupling substantially as described comprising the draw-head having a flaring mouth and in rear thereof a recess for the jaw, such recess being provided in its lower wall with a longitudinal channel of less width than the recess and arranged in line with the flaring mouth, and the jaw operating within said recess, such jaw being arranged at its lower side to overlap and extend laterally beyond the channel in the draw-head and being provided in its said lower side with a channel coinciding with that in the draw-head, the coupling-pin carried by said jaw and projecting below it, and a coupling-link lying partly in the channel in the draw-head and partly in that of the jaw and being secured by said jaw, substantially as set forth.

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Witnesses:

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