

S. SZNUTCHKO & E. W. STEVENSON.
CAR COUPLING.

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914,895.

Patented Mar. 9, 1909.

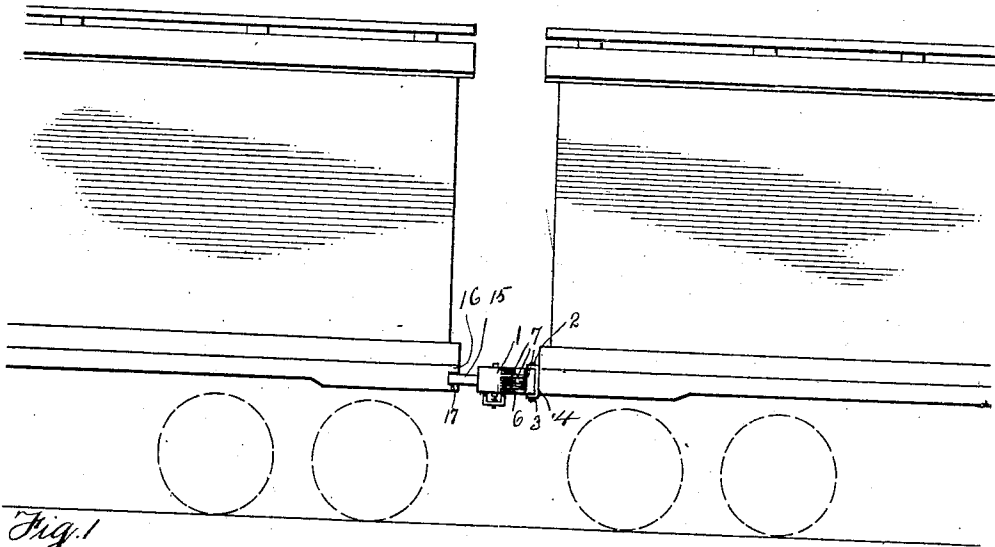


Fig. 1

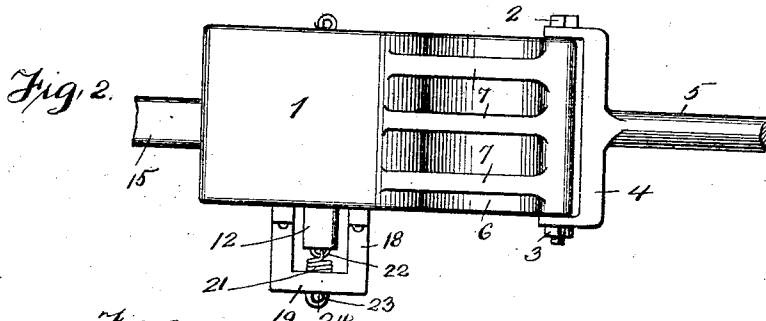


Fig. 2

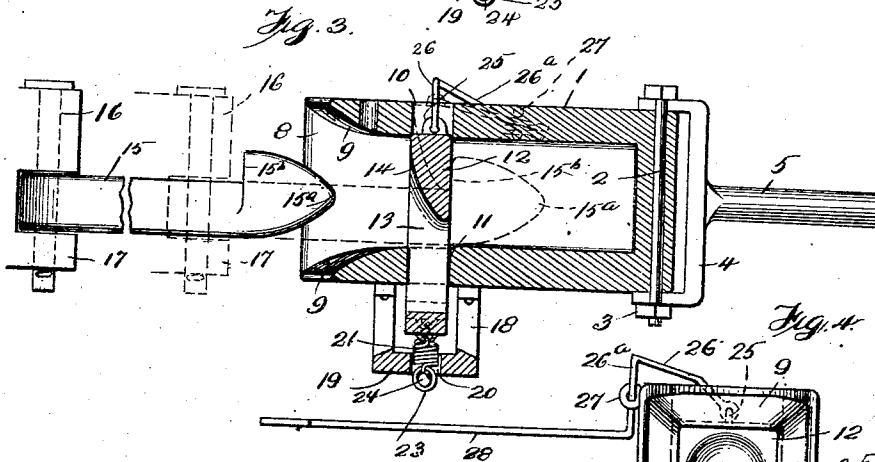


Fig. 3

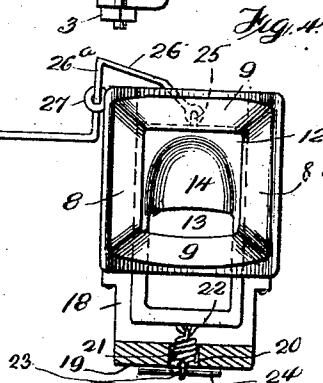


Fig. 4

Witnesses

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UNITED STATES PATENT OFFICE.

SAMUEL SZNUTCHKO AND ELLERSLIE W. STEVENSON, OF OAKDALE, PENNSYLVANIA.

CAR-COUPLING.

No. 914,895.

Specification of Letters Patent.

Patented March 9, 1909.

Application filed October 8, 1907. Serial No. 396,418.

To all whom it may concern:

Be it known that we, SAMUEL SZNUTCHKO and ELLERSLIE W. STEVENSON, citizens of the United States of America, residing at Oakdale, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Car-Couplers, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to car couplers, and its primary object is, to provide a coupling of novel construction which will automatically couple by the abutting contact of the coupling members, and be retained against accidental disengagement by a spring.

A further object of the invention is, to provide novel means for permitting a free play or movement of the coupling members when rounding curves.

The invention also includes means for raising the spring-controlled coupling member to uncouple the same from the cooperating member.

The construction of the improvement will be fully described hereinafter in connection with the accompanying drawing which forms a part of this specification, and its features of novelty will be set forth in the appended claims.

In the drawing: Figure 1 is a partial side elevation of two cars connected by our improved coupling, Fig. 2 is a side elevation of the coupler detached. Fig. 3 is a view partly in longitudinal vertical section, and partly in side elevation of the coupler, and Fig. 4 is a front elevation of the draw-head, partly in transverse section, containing one of the coupling members.

The reference numeral 1 designates a draw-head pivotally secured at its inner end by a bolt 2 and nut 3 between the perforated arms of a yoke 4 secured to a draw bar 5. The inner portions 6 of the side walls of the draw head are preferably contracted in width and formed with longitudinal reinforcing ribs 7. The outer end 8 of the draw-head is flared and formed with beveled surfaces 9 for the purpose hereinafter explained, and in rear of these beveled surfaces the top and bottom walls of the draw head are formed with vertical alining transverse slots 10 and 11 to receive a vertically movable gate 12. The gate 12 is formed with an opening 13, and a beveled surface 14 the latter being adapted to receive the

impact of a coupling hook 15 pivotally secured by a pin 16 to a draw head 17 and having a tapered end 15^a and a shoulder 15^b.

Secured to the under side of the draw head 1 below the slot 11 is a frame 18, the bottom 19 of which is formed with a central opening 20 to receive a coil spring 21, the upper end of which is secured to an eye 22 depending from the gate 12 and the other end to an eye 23 supported upon a rod 24 or other suitable securing device below the frame 18.

Projecting centrally from the upper end of the gate 12 is an eye 25 to which is loosely secured one end of a bell crank lever 26, the opposite end of which is connected to a crank arm 26^a supported by a loop or keeper 27 at one side of the draw head and provided with a handle or lever 28.

The utility and operation of the mechanism constructed as above described will be readily understood.

The gate 12 which serves as one of the coupling members, is normally held in the position shown in full lines in Fig. 3, by the spring 21. When two cars equipped with the coupling are brought together the tapered end of the hook 15 strikes the beveled surface 14 of the gate and enters the opening 13 thus elevating the gate sufficiently to pass behind the gate and engage against its rear surface as illustrated by dotted lines in Fig. 3. As soon as this coupling of the gate and hook is effected, the spring draws the gate down thus insuring a secure engagement of the two coupling members. It will be apparent that the tapered form of the hook, and the beveled surface 14 of the gate permit of the required vertical movement of the gate with little jar or friction. The draw head 1 and hook 15 being both pivotally supported, the required lateral play of the coupler is effected, and the beveled surfaces contribute to that end.

The gate 12 may be readily raised by the uncoupling lever 28 to effect the uncoupling from a position at one side of the cars.

Having fully described our invention what we claim as new and desire to secure by Letters Patent, is,

1. A car coupler comprising a pivoted draw head provided in its top and its bottom wall with a transverse slot, said slots arranged in alinement, a vertically disposed gate arranged within the draw head and extending in said slots, said gate provided with

an opening extending in the direction of the length of the draw head, the upper wall of said opening being beveled, a pivoted coupling hook having its free end beveled and further provided with a vertical shoulder in proximity to its beveled end, said gate arranged in the path of the hook whereby when the hook enters the draw head, the beveled end of the hook will engage the beveled portion of the gate elevating the latter during the passage of the hook through said opening, said gate adapted to sit upon said hook when the latter extends through the opening in the gate whereby the shoulder of the hook will be arranged against the inner face of the gate to prevent the separation of the hook from the draw head, a frame depending from the under side of the draw head, and having its bottom provided with a centrally disposed opening, a rod arranged below and engaging said frame, and a spring arranged within the opening in the frame and having one end connected to said gate and its other end formed with an eye through which extends said rod.

2. A car coupler comprising a pivoted draw head provided in its top and its bottom wall with a transverse slot, said slots arranged in alinement, a vertically disposed gate arranged within the draw head and extending in said slots, said gate provided with an opening extending in the direction of the

length of the draw head, the upper wall of said opening being beveled, a pivoted coupling hook having its free end beveled and further provided with a vertical shoulder in proximity to its beveled end, said gate arranged in the path of the hook whereby when the hook enters the draw head, the beveled end of the hook will engage the beveled portion of the gate elevating the latter during the passage of the hook when the latter extends through the opening in the gate whereby the shoulder of the hook will arrange against the inner face of the gate to prevent the separation of the hook from the draw head, a frame depending from the underside of the draw head and having its bottom provided with a centrally disposed opening, a rod arranged below and engaging said frame, a spring arranged within the opening in the frame and having one end connected to the gate and its other end formed with an eye through which extends said rod, and means engaging with the gate for elevating it to release the hook.

In testimony whereof we affix our signatures in the presence of two witnesses.

SAMUEL SZNUTCHKO.
ELLERSLIE W. STEVENSON.

Witnesses:

MAX H. SROLOVITZ,
A. J. TRIGG.