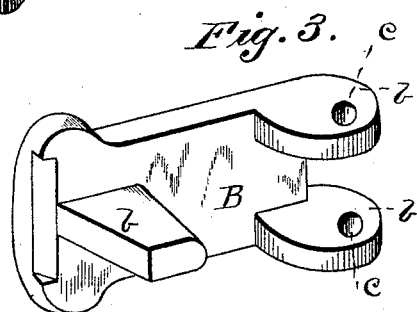
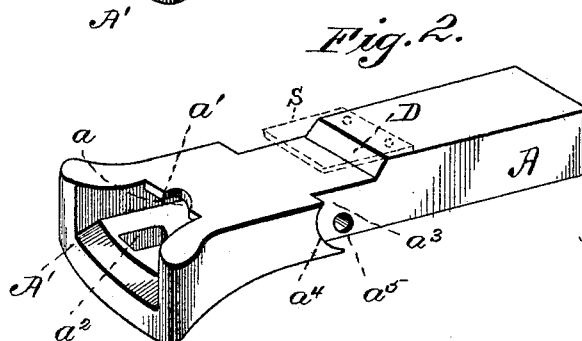
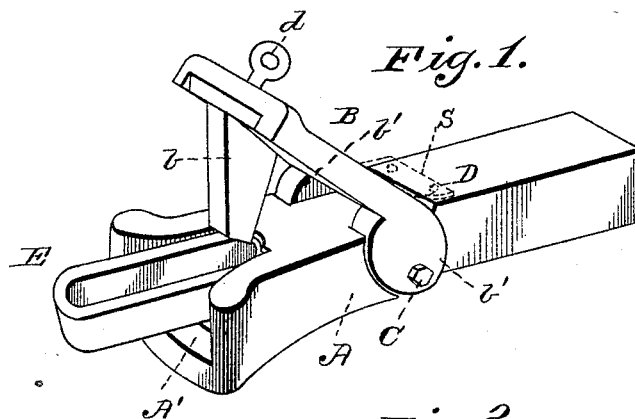


(No Model.)

E. A. GALLUP.
CAR COUPLING.

No. 459,177.

Patented Sept. 8, 1891.



Witnesses

J. M. A. McKenna
J. S. Flannery

Inventor
Elijah A. Gallup
By Wm. H. Brereton
Attorney.

UNITED STATES PATENT OFFICE.

ELIJAH ALLEN GALLUP, OF HANCOCK, IOWA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 459,177, dated September 8, 1891.

Application filed March 23, 1891. Serial No. 386,009. (No model.)

To all whom it may concern:

Be it known that I, ELIJAH ALLEN GALLUP, a citizen of the United States, residing at Hancock, in the county of Pottawattamie and State of Iowa, have invented certain new and useful Improvements in Car-Couplings; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

My invention is a car-coupling; and my said invention consists in certain details of construction of the parts composing the same whereby a simple, practical, and durable car-coupling is produced that is easy of operation and automatic in action, and in carrying out my invention I proceed as follows, reference being had to the accompanying drawings, forming a part thereof, wherein—

Figure 1 is a view in perspective of a car-coupling constructed according to my invention, the movable jaw that effects the coupling being shown as in its elevated position. Fig. 2 is a detailed view in perspective of the stationary member of the coupling in illustration of the construction of the same and Fig. 3 is a similar view of the movable member.

This coupling is designed as an improvement upon the car-coupling for which Letters Patent of the United States were granted to me on October 14, 1890, No. 438,372, and it is composed of a stationary member A, secured to the bed-frame of the car in the usual or any desired manner, having a flaring mouth A', whose outer edge is made curved to allow for play between the draw-heads of opposing cars in going around curves and the rear of which mouth terminates in a recess a , having an overhanging front edge a' , for the purpose as will presently appear, and through the bottom of which mouth is a slot a^2 to receive the tooth of the movable jaw. Just behind the draw-head and upon opposite sides thereof is formed a recess or socket a^3 , having a curved front edge, as at a^4 , and transversely through the draw-head centrally of these sockets is a hole a^5 . Such constitute the stationary mem-

ber of the coupling, united to which is the movable or hinged jaw B, which said jaw has at its front central portion a tooth b , whose front edge tapers toward the lower end and is received into the opening a^2 when effecting a coupling, and upon each side of the rear extremity of which movable jaw is formed integral therewith lugs or ears b' b' , which fit the recess or sockets a^3 upon each side of the part A of the draw-head, and are secured in position by a pin C, that passes through the said ears b' b' and the hole a^5 of the part A. As will be noted, the ears b' b' of the hinged jaw B straddle the member A and are rounded, the curved front edge of which, when the jaw B is down and the car coupled, comes flush against the correspondingly-curved shoulders a^4 of the sockets a^3 , while the pivot-hole c through said ears b' for the pivot-pin C is near the lower edge and near the rear edge of said ears, so that the line of draft through the draw-head is below the center line thereof, and because of said pivot being at the rear edge of the jaw the entire gravity of the jaw when raised to its full extent is forward of the pivot-pin.

To prevent the too far vertical movement of the jaw B, a shoulder D is provided, against which the rear end of said jaw B will impinge when elevated, and such stop D is so arranged that the jaw B cannot be raised to a position at right angles to the part A.

To provide for the lifting of the jaw B from either the top or sides of the car through suitable connection, an eye d is provided.

When desired to effect a coupling, the link E, which is of the usual construction, is placed in the mouth of the draw-head and rests beneath the overhanging front edge a' of the recess a , and is so held in a proper horizontal position to enter the mouth of the approaching draw-head. The link, coming against the beveled front edge of the tooth b , lifts the jaw B, and passing behind the said tooth the jaw B drops of its own gravity and automatically effects the coupling of the cars together. No going between the cars to direct the link is therefore necessary in this case, and to uncouple the cars the jaw B is simply lifted by any proper means.

Owing to the front edge of the ears b' b' of

the jaw B, as before stated, impinging against shoulders on the draw-head, all strain is removed from the pivot-pin, and as the front edge of the tooth *b* also impinges against the front edge of the socket *a*³ when said jaw is in its closed position a point of bearing for the strain of draft is also located at this point, so that the draft of the link will be exerted upon the tooth of the movable jaw and said tooth against the front edge of its socket upon the pivot-pin and the curved shoulders of the draw-head and ears, making four separate points of bearing, so that the pivot may be made light, and danger of breakage is not likely to occur, and durability is insured.

Aside from the cap but three pieces constitute the coupling—the stationary jaw, the movable jaw, (each of which may be cast and requires little fitting,) and the pivot-pin—so that a cheap and strong coupling is produced. As the hinged jaw straddles the stationary jaw, should the pivot-pin break the parts will not become detached.

To prevent the entrance of snow or ice or the lodgment of dirt between the jaws of the coupling, a cap or shield, as at S, is provided,

that is attached to the rear top edge of the jaw A and covers the hinge-opening between the members of the draw-head. This shield may be of sheet metal, leather, rubber, or any other suitable material and attached to either jaw.

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

In a car-coupling, in combination, the stationary member A, having curved flaring mouth with recess *a*, having overhanging edge *a'*, slot *a*², sockets *a*³ *a*³ at each side, with curved shoulders *a*⁴, hole *a*⁵, and shoulder D, forming a single casting, and movable jaw B, forming the upper half of the draw-head, with tapered tooth *b* and curved ears *b'* *b'* at each side of its rear end, forming a single casting, and pin C for uniting the two members together, as described and shown, for the purposes specified.

ELIJAH ALLEN GALLUP.

Witnesses:

J. M. FLAGLER,
NEWTON GALLUP.