(No Model.)

# J. AUSTIN & R. C. CHAMBERLAIN.

## CAR COUPLING.

No. 263,092. Patented Aug. 22, 1882.

Fig. 1.

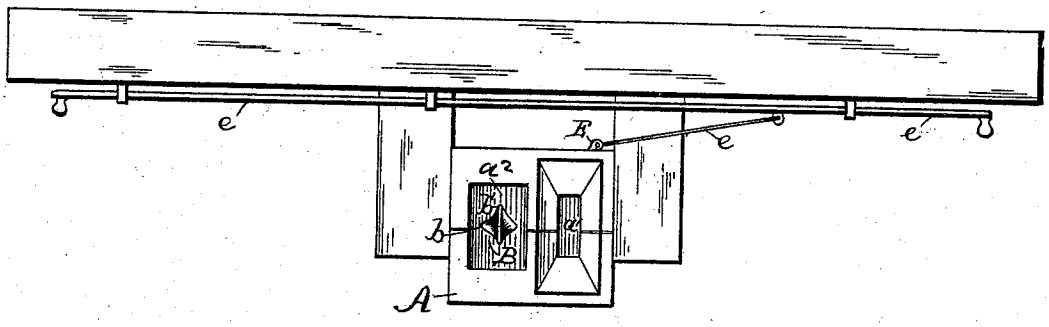



Fig. 2.

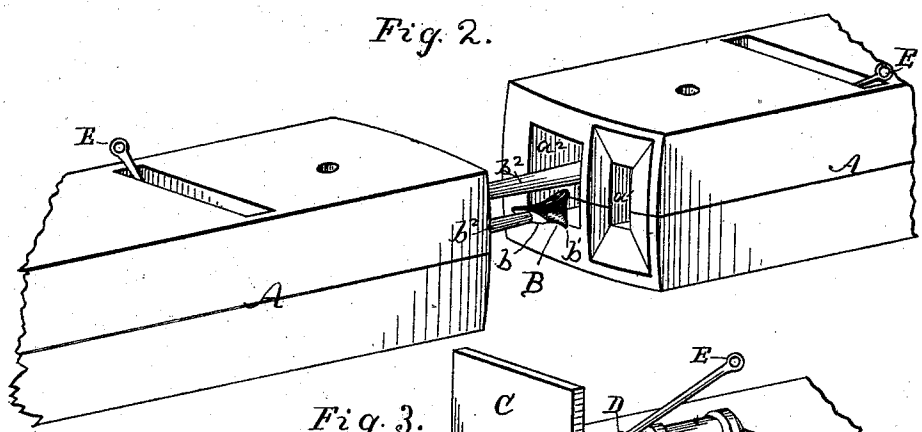
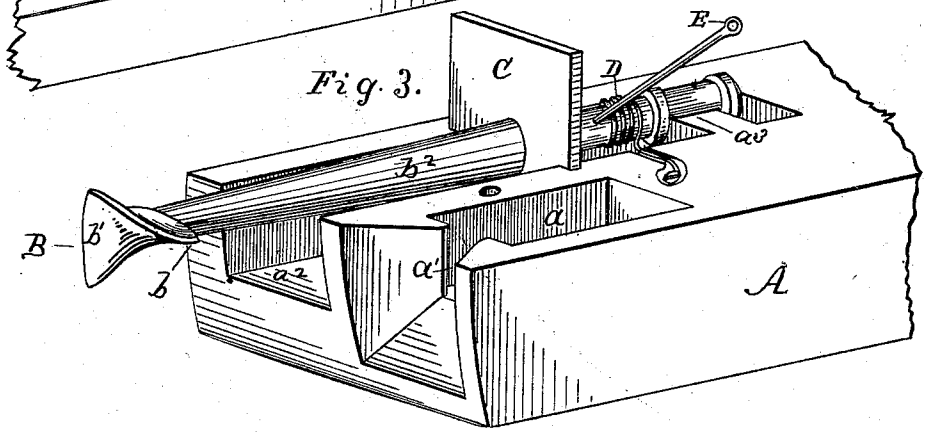



Fig. 3.




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# UNITED STATES PATENT OFFICE.

JOSIAH AUSTIN AND ROSSCO C. CHAMBERLAIN, OF EAST LIBERTY, OHIO.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 263,092, dated August 22, 1882.

Application filed March 13, 1882. (No model.)

*To all whom it may concern:*

Be it known that we, JOSIAH AUSTIN and ROSSCO C. CHAMBERLAIN, of East Liberty, Logan county, and State of Ohio, have invented a new and Improved Car-Coupling; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, in which—

Figure 1 represents a front elevation of an improved coupling applied to a car; Fig. 2, a perspective view of the coupling detached from the car; and Fig. 3, a perspective view of a single coupling, with the upper half removed to show the interior construction.

Our invention relates to improvements in that class of automatic car-couplings in which a screw-head having its shaft connected with one draw-head is adapted to be screwed into the contracted mouth of the opposite draw-head; and the invention consists in the peculiar arrangement and construction of the parts, as hereinafter more fully set forth.

In the drawings, A represents the draw-head, consisting of a cast or wrought metal block or frame, which is provided upon one side with the chamber *a*, having a mouth, *a'*, contracted to a narrow opening in a horizontal plane, but extended in a vertical plane, and upon the other side with the chamber $a^2$, adapted for the reception of the shank of the screw-head, as shown.

$a^3$ represents proper bearings, located at the rear end of the chamber, which are adapted to support the rear end of the shank, as shown.

B represents the screw-head, consisting of a rectangular plate twisted spirally in such manner as to have, when in its normal position, a horizontal portion, *b*, and a vertical portion, *b'*, as shown.

$b^2$ represents the shank of the screw-head, which is provided with a journal portion near its rear end, adapted to rest in the bearings $a^3$, as shown.

*c* represents a rubber or leather block or plate having an opening through it to receive the shank $b^2$, which block is held in proper recesses in the draw-head, as shown. By means of this block the shank is given proper support near its center, as shown.

D represents a coiled spring, one end of which is secured to the shank $b^2$ and the other to any proper point upon the draw-head, the tendency of which is, when free to act, to hold the shank $b^2$ in what may be termed its "normal position"—that is, in such position that the portion *b'* of the screw-head will be in a vertical plane.

E represents a lever attached to the shank $b^2$, and *e* a rod attached to the free end of the lever, which extends across the platform of the car, beneath the same, into position for convenient manipulation on either side by the brakeman.

The operation is substantially as follows: The parts being in their normal positions, the cars are brought together by the engine in the usual manner. The screw-head of each approaching draw-head enters the mouth of the opposite coupling and passes through the contracted opening into the space beyond, the passage of the horizontal portion of the head being effected by the partial revolution of the shank by the contact of the sides of the screw with the walls of the opening. This revolution is effected against the action of the spring D, and consequently when the screw-head has entered its chamber its shank is revolved to its normal position by the reaction of this spring. By this return of the parts to their normal position the horizontal portion of the screw-head is caused to lie across the narrow opening, so that disengagement is impossible until a change of position occurs. When it is desired to uncouple the cars the rod *e* is actuated to cause the lever to revolve the shank from its normal position and bring the horizontal portion of the screw-head into line with the opening, when the head, thus being permitted to enter the opening, passes through the same by a partial revolution, as before. Certain advantages result from this construction. The coupling, by virtue of its form, is always in position for use no matter which way

the cars may be turned. Its action is automatic, so that the brakeman is not required to go between the cars.

Having thus described our invention, what we claim, and desire to secure by Letters Patent, is—

The combination, with the draw-head A, provided with the chamber *a*, having contracted mouth *a'*, of the shank $b^2$, provided with the screw-head B, spring D, secured to the shank and draw-head, lever E, and rod *e*, substantially as described, and for the purpose set forth.

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Witnesses:
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