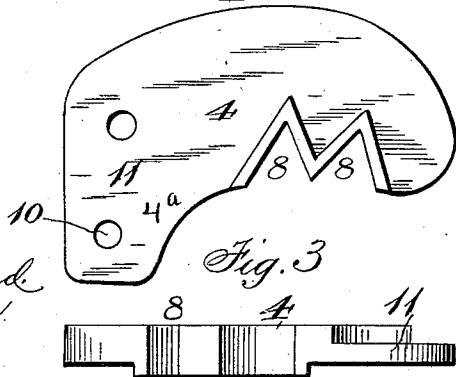
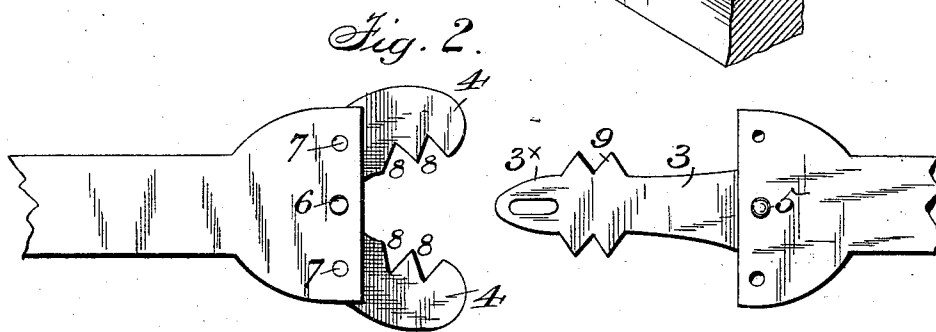
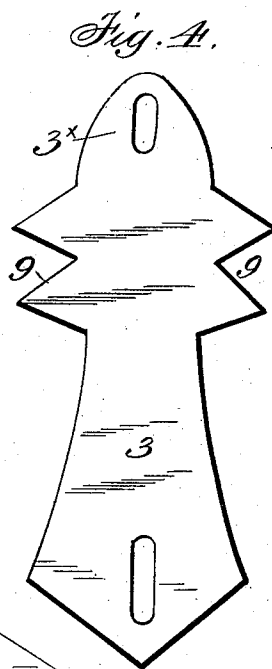
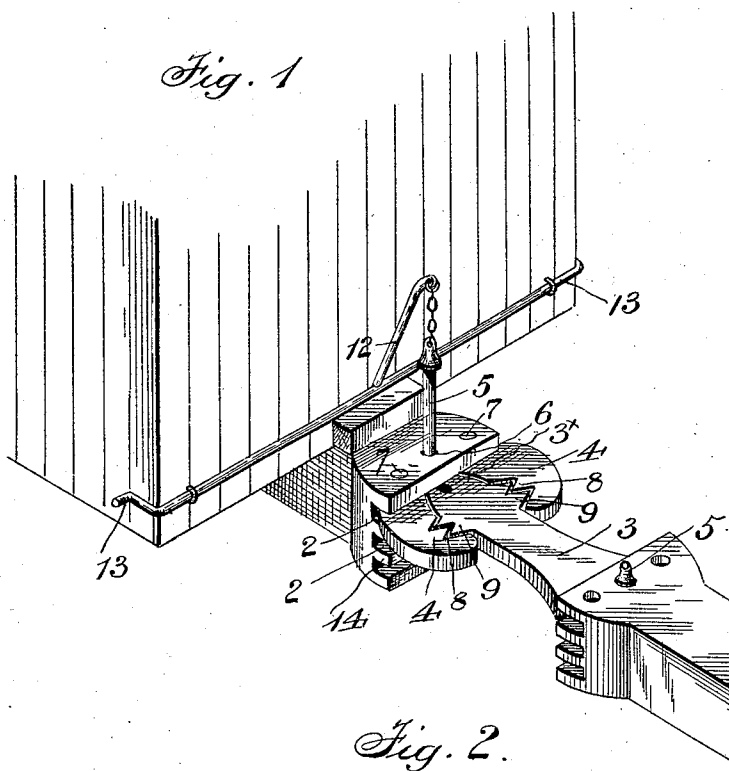


(No Model.)

C. M. DORN.
APPLIANCE FOR COUPLING CARS.

No. 572,675.

Patented Dec. 8, 1896.



Witnesses.

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UNITED STATES PATENT OFFICE.

CLARE M. DORN, OF CHAUTAUQUA, NEW YORK.

APPLIANCE FOR COUPLING CARS.

SPECIFICATION forming part of Letters Patent No. 572,675, dated December 8, 1896.

Application filed May 6, 1896. Serial No. 590,424. (No model.)

To all whom it may concern:

Be it known that I, CLARE M. DORN, a citizen of the United States, residing at Chautauqua, in the county of Chautauqua and State of New York, have invented certain new and useful Improvements in Appliances for Coupling Cars; and I do hereby 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.

My invention appertains to certain new and useful improvements in appliances used for connecting one car of a railway-train to that of another, the object being to produce an automatic coupling appliance comprising great simplicity of operation, absolute safety to those controlling its use, and cheapness of manufacture and application, as will be hereinafter fully set forth, claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view from one side of my invention as applied to use. Fig. 2 is a top plan view of Fig. 1. Fig. 3 is a detail of one of the jaws, while Fig. 4 is a top plan of the arrow-link.

Reference will be had to the various details of my invention by figures, each figure designating the same part throughout the several views.

While my invention may be applied to the ordinary draw-head 1 as now in common use after the same has been slightly modified, yet I prefer to provide a draw-head of special construction, which will have particular adaptability for the reception of the other elements of my invention.

In carrying out my invention I prefer to provide two or more transversely-disposed mouths or recesses 2, adapted to receive the arrow-link 3. The object in providing more than one transversely-disposed recess is to compensate for the varying heights of different cars, which will enable one of said recesses to coincide in position with the connecting-link of the opposite draw-head. One or more of the draw-heads contacting each other may have pivoted in one of its transverse recesses laterally-spreading jaws 4, adapted to receive the arrow-headed link and securely hold the same when the coupling-

pin 5 is placed in the central hole 6, provided in the draw-head in the usual manner.

The jaws 4 may be secured pivotally to the draw-head by hinges, though I prefer to use the bearing-pins 7, as shown. Said jaws are so constructed that they will carry upon their inner edges the series of corrugations 8, adapted to engage with the corrugations 9 on the arrow-link and securely hold same when the coupling-pin 5 is forced home, as said pin will engage with the opening 10 in the inwardly-extending arm 11 of each jaw. In order to provide for the maximum strength and frictional surface of said jaws consistent with the use of the minimum amount of material, I prefer to so form said frictional faces that they will have a much greater width than the remaining portion of said jaws. This increase of frictional surface may be arranged to partly extend above and partly below the body proper of the jaw, or may extend entirely below said body, as preferred.

When the locking-jaws are opened, the lateral arms 4^a thereof move outwardly in the path of the coupling-pin, which may be set in the upper portion of the hole 6 and arranged to rest upon said arms, when, by the force of the cars intended to be coupled together, said arms will be, by the force of the end of the link, caused to recede, when the coupling-pin will drop into the holes 10, and thus automatically secure the jaws in a locking position upon the link.

The pointed end 3^x of the arrow-link will press against the lateral arms 11, and thus cause the free ends of the jaws to swing inwardly in an engagement with the corrugated head of said link, as will be readily understood.

In order to prevent the necessity of the operator or attendant from going between the cars to be coupled, I provide the crank-arm 12, which is secured in suitable bearings to the end of the car and terminates upon either side of the car in an operating-handle 13. If preferred, a winding-drum having an operating rim or wheel (not shown) may be used in lieu of the crank-arm when suitably connected by chain and pulleys to the coupling-pin.

It will be readily understood from this brief description of the means used for controlling the coupling-pin that such pin is

placed fully under the safe control of the attendant.

It will be understood that the draw-head may be constructed in one piece and the series of lips 14, that separate the recesses, may be formed integrally with the draw-head, or said lips may consist of separate pieces of metal placed upon each other and after separating-sections have been interposed, thus forming the several recesses in which the link may be received or the jaws pivoted. This matter is merely a detail of construction and may be settled by the manufacturer. I desire to lay special stress upon the advantages accruing in the use of my invention, in which an automatically-operating coupling appliance is produced, and, further, upon the fact that the attendant is absolutely protected against the danger arising from going between the cars in order to join them together. These and other advantages, it is believed, will be readily apparent, and,

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a car-coupler the combination with the draw-head of jaws pivoted therein by their inner ends, and having on the inner

edges of their free ends, the series of V-shaped indentures; the link having at either end the slot-like apertures and carrying upon one end the projections 9, adapted to be received by the V-shaped indentures upon the jaws, substantially as described and for the purpose named.

2. In a car-coupler the combination with a draw-head provided with a series of transverse recesses reaching across the entire face thereof, of jaws pivoted in one of said recesses having on their pivoted end the lateral arms 4^a, provided with aperture 10, and upon the inner edge of their free ends the V-shaped indentures 8; and a link having slotted apertures at either end and having one end provided with projections 9, and the rounded end 3^x, the latter adapted to engage with the lateral arms and force the said projections into registration with said V-shaped indentures, substantially as described and for the purpose named.

In testimony whereof I affix my signature in presence of two witnesses.

CLARE M. DORN.

Witnesses:

DEXTER D. DORN,
F. T. ROBINSON.