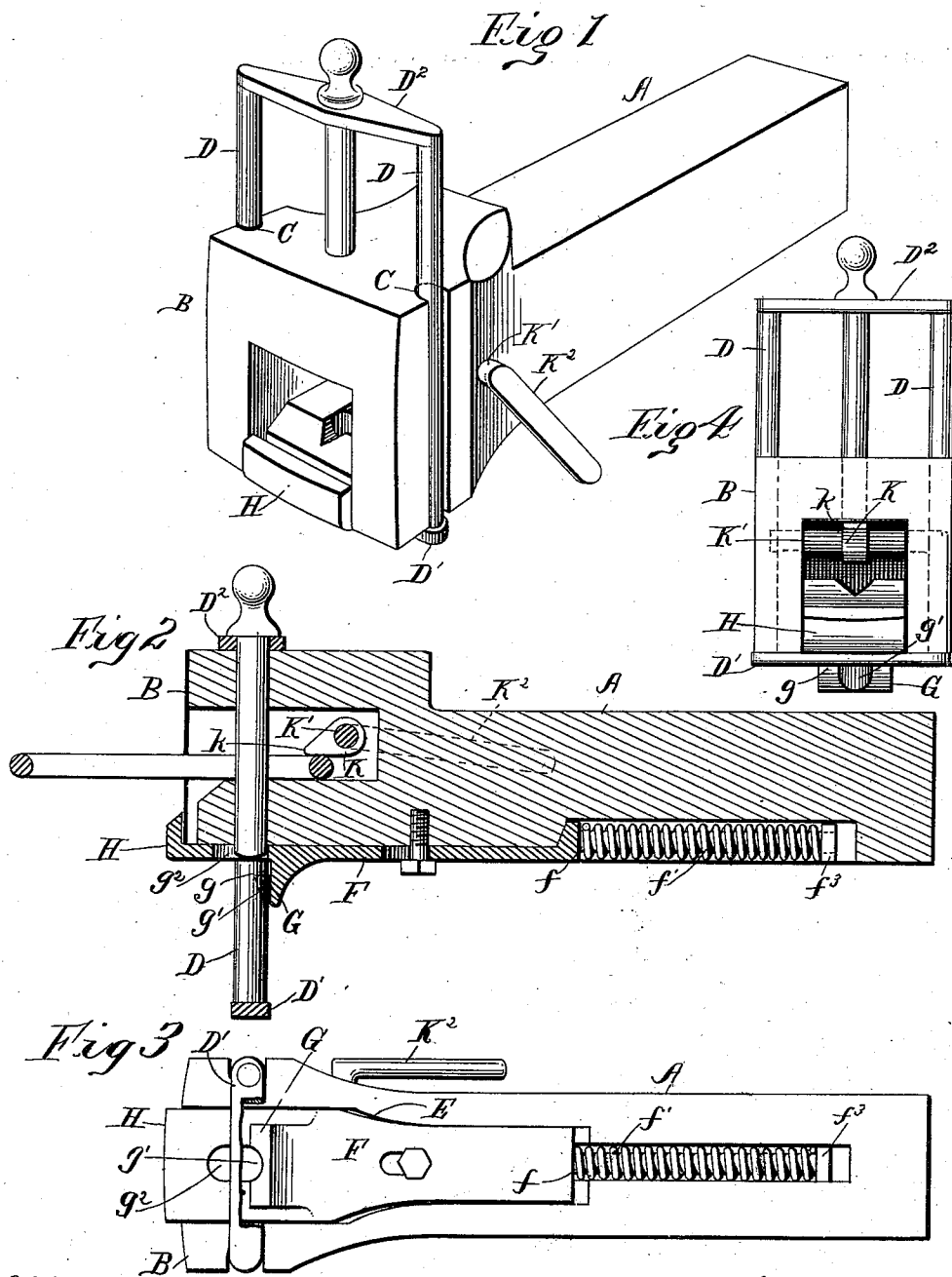


(No Model.)

J. N. ARMOUR & A. J. HANCOCK.
CAR COUPLING.

No. 505,892.

Patented Oct. 3, 1893.



Attest:
C. B. Budine
Arthur Cunningham.

Inventors:
James N. Armour
Andrew J. Hancock
per M. V. Tierney
Atty.

UNITED STATES PATENT OFFICE.

JAMES N. ARMOUR AND ANDREW J. HANCOCK, OF CHANUTE, KANSAS.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 505,892, dated October 3, 1893.

Application filed May 31, 1893. Serial No. 476,018. (No model.)

To all whom it may concern:

Be it known that we, JAMES N. ARMOUR and ANDREW J. HANCOCK, citizens of the United States, residing at Chanute, in the county of Neosho and State of Kansas, have invented certain new and useful Improvements in Car-Couplers; and we 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.

This invention relates to an improvement in car couplers and consists in the construction and arrangements of parts hereinafter described and definitely pointed out in the claim.

The object or purpose of this invention is a provision of an improved automatic car coupler to be simple in its construction, strong, and durable and adapted for application to the now commonly used pin and link coupler.

A further object of the invention is the provision of improved means for adjusting the link.

These objects are obtained by the construction illustrated in the accompanying drawings wherein like letters of reference indicate corresponding parts in the several views and in which—

Figure 1 is a perspective view of the improved coupler. Fig. 2 is a longitudinal vertical section. Fig. 3 is a bottom plan view and Fig. 4 is a front elevation.

In the drawings A represents the draw bar and B the draw head having the usual chamber therein in which the link passes.

On the sides of the draw-heads are formed vertical guideways C in which the cylindrical side bars D of a link supporting frame work. This frame has a lower cross bar D' and an upper cross bar D² formed with a central opening therein which registers with the pin opening in the draw-head.

A longitudinal tapering channel E is formed in the bottom of the draw-heads, the rear section of which is reduced in width and terminates at a point midway the length of the draw bar. In this channel is placed a sliding plate F, having a rod *f* on its rear end on which a spring *f'* is sleeved. The rear end of this rod passes through a metallic button *f*³ against which the end of the spring en-

gages, the opposite end of the spring abutting against the rear end of the plate.

Midway the length of the plate is formed an elongated slot in which a retaining bolt or screw is placed whereby the plate is held in position and allowed a reciprocating movement against the tension of the spring.

G is a catch formed on the under side of the plate having a beveled front face, a lateral groove *g* and a vertical central groove *g'* registering with an elongated opening *g*² through which the end of the pin passes when the same is lowered.

On the forward end of the plate F is formed an upwardly extending flange H having a beveled upper edge and adapted to fit in a depression formed in the front face of the lower edge of the draw-head. This recess is of a depth corresponding to the thickness of the flange so that when the flange is forced back into the recess the same will form an even continuation of the front face of the draw-head.

In operation the pin is placed in the opening of the upper cross bar of the frame, the frame being raised until the lower cross bar engages the horizontal groove in the catch on plate F, this catch being in direct alignment with the lower cross bar, so that when the frame is forced up by any suitable means the cross bar will engage the beveled face of the catch and force the plate F back permitting the cross bar to enter the grooves at which moment the plate is forced forward by the spring thereby holding the frame with the pin in an elevated position. When the draw-heads come together the flanges on the plates F are forced into the recesses thereby forcing the plate back releasing the lower cross bar of the frame and permitting the pin to fall and couple the link. By the employment of the flange the impact of the draw-heads is transmitted directly to the draw-heads, thereby preventing injury to the plate and its adjuncts.

Directly in the rear of the chamber in the draw-heads is formed a cavity I in which a link adjuster K works. This adjuster consists of a disk having a central opening through which a shaft K' passes, the latter extending to the outside of the draw-heads at one end and having a crank K² secured thereon. The

disk is formed with a tapering projection $\frac{1}{2}$ having inclined sides and arranged directly in the path of the link. The upper end of this projection is normally held in substantially a vertical position by the weight of the crank on the end of the shaft thereof, so that if the outer end of the link which normally inclines downwardly is desired to be raised it is only necessary to elevate the crank which depresses the extension of the disk onto the link forcing the same down to any desired point and thereby elevating the outer end, so that the same will register with the opening in the adjacent drawing.

15 It is evident that minor changes can be made without departing from the principle of the invention.

Having thus described the invention, what is claimed as new, and desired to be secured by 20 Letters Patent, is—

In a car coupler, the combination with a draw-head having vertical grooves in its sides

and a channeled lower face of a vertically sliding frame having an apertured upper cross bar, a pin in the aperture a lower cross bar 25 on the frame, a sliding plate in the channel having a rod on its rear end, an abutment through which the rod passes, a spring sleeved on the rod, an upwardly projecting flange on the plate of a thickness corresponding to the 30 thickness of a recess in the face of the draw-heads and having a beveled upper edge, an inclined catch on the plate in line with the cross bar of the frame, and means for slidingly securing the plate in the channel, substantially as described. 35

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

JAMES N. ARMOUR.
ANDREW J. HANCOCK.

Witnesses:

N. J. ROBERTSON,
JOHN L. HARRIS.