

(No Model.)

M. WELLS & J. LOVETT.
CAR COUPLING.

No. 577,902.

Patented Mar. 2, 1897.

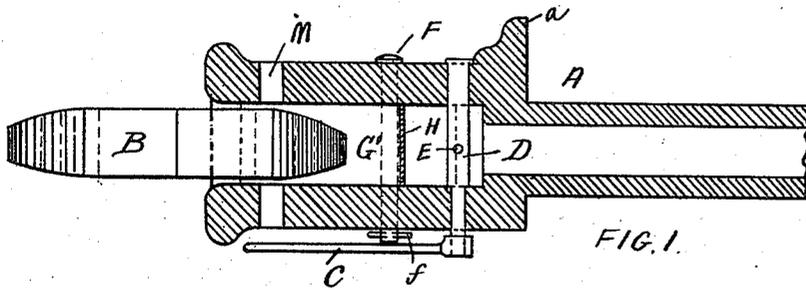


FIG. 1.

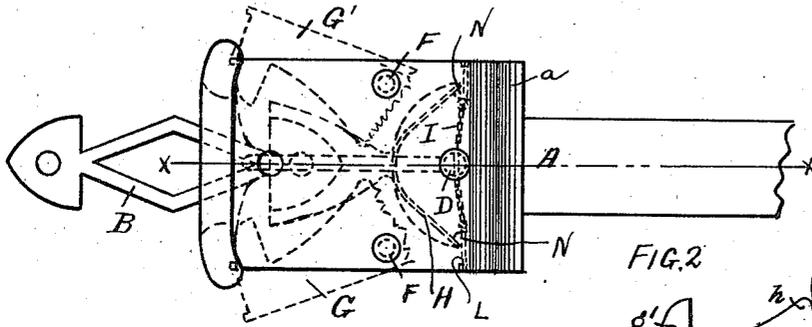


FIG. 2.

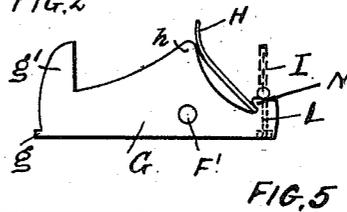


FIG. 5.

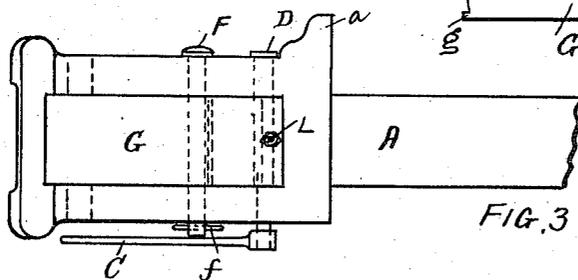


FIG. 3.

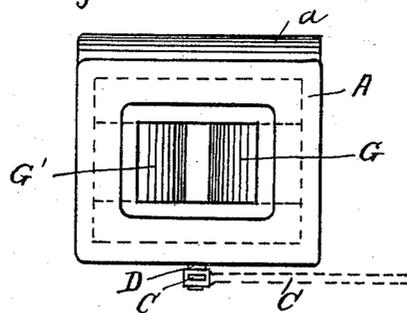


FIG. 4.

Witnesses:
M. Proctor
Charles Marien.

Inventors:
MAHLON WELLS.
JOHN LOVETT.
BY Thurman & Silvis
ATTORNEYS.

UNITED STATES PATENT OFFICE.

MAHLON WELLS AND JOHN LOVETT, OF HAUGHVILLE, INDIANA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 577,902, dated March 2, 1897.

Application filed July 6, 1896. Serial No. 598,210. (No model.)

To all whom it may concern:

Be it known that we, MAHLON WELLS and JOHN LOVETT, citizens of the United States, residing at Haughville, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Car-Couplings; and we 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 a part of this specification.

Our present invention relates to a device for connecting railway-cars together in a train; and it consists of improvements in a car-coupling, a patent for which was granted February 11, 1896, bearing No. 554,610, these improvements relating more particularly to the details of construction of the parts comprising the automatic coupling and uncoupling mechanism, whereby the devices are rendered more reliable and effective, as will be more fully described hereinafter.

The objects of this invention are to simplify the general construction of a coupling and render it capable of being more cheaply manufactured, while being positive in all its functions, as well as ease of general application. With this in view our invention is of few parts, substantial, durable, and economical in use.

Referring to the drawings, Figure 1 represents a central longitudinal sectional view on the line *xx* of Fig. 2. Fig. 2 is a top plan showing the internal mechanism in dotted lines. Fig. 3 is a side elevation. Fig. 4 is a front end view, and Fig. 5 is a top plan, of one of the coupling-hooks.

In the drawings, A designates the body of the coupling; B, the coupling-bar; C, the uncoupling-lever; D, the uncoupling-shaft, and G G' the coupling-hook bars.

The body A is preferably made of cast-iron and is provided with suitable openings in the sides to receive the hook-bars and in the front to receive the coupling-bar, also the necessary pin-holes. The back of the head has a buffing block or shoulder *a*. A vertical pin-hole M is provided in the forward part of the head, into which a coupling-pin may be inserted in

case it should be desirable to couple with a link and pin.

The coupling-hook bars G G' are made of wrought iron or steel and preferably drop-forged. They are duplicates and reversible by being inverted to suit either side. Each has a pin-hole F', through which a pivotal pin F, having a cotter *f*, passes when the hook-bar is in position in the head, securing the bar in its place. The forward end of the bar has a hook *g'*, curved at the outside to enable the coupling-bar to force it open when coupling automatically. A lip *g* is provided to act as a stop against the head to gage the inward travel of the hook, the lip being in engagement when the hooks are normally closed. The rear end of the hook-bar has a lug N, against the inner part of which the spring H presses to normally hold the hooks toward each other or closed. Through the lug is a transverse horizontal hole to receive the eyebolt L, to which is attached the uncoupling-chain I. The outer end of the bolt-hole is recessed to admit a nut on the end of the bolt, so as to be flush with the outside of the bar. The inner side of the bar has a swelled part *h*, against which the central part of the spring bears as a fulcrum to act against the lugged end of the bars.

In the center of the rear portion of the head is a vertical hole in which is located revolvably the shaft D, which may be made of any suitable metal, preferably wrought-iron. Through the shaft is a hole E to receive the chain I. A lever C is removably secured at one end to the lower end of the shaft D, and the free end of the lever may be suitably connected with one or two uncoupling rods or chains extending to the side of the car when applied thereto. Normally the lever C extends forward.

The coupling-bar B is of a type in common use for this class of coupling, but we preferably make the central portion open to avoid excessive weight. Each end has a pin-hole which may be used when connecting with a non-automatic link-and-pin draw-head.

In practical use the bar B, being first connected in an opposing coupling-head, is forced against the hooks *g'*, pressing them open or apart until the arrow-head of the bar passes the hooks, when the latter close automatic-

ally by the pressure of the spring H, and a coupling is effected. To uncouple, the lever C is drawn sidewise, as shown by the dotted lines in Fig. 4, the action winding the chain I around the shaft D and opening the hooks, as shown in dotted lines in Fig. 2, releasing the bar B.

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

1. The combination of the body portion having the head provided with a frontal opening, an opening or recess at each side, a vertical pivotal pin-hole at each side, the vertical frontal pin-hole, and the rear vertical hole for a shaft; the hook-bars pivoted within the side openings, said bars being provided at the forward end with the hook, at the inner side with the swelled portion, and at the rear end with the lug and a horizontal transverse bolt-hole; the spring having its central portion seated against the said swelled portions of said bars and its ends pressing against said lugs at the rear end of said bars; the vertical rotatable shaft mounted centrally in the said hole at the rear of said head, and provided with a transverse hole near its center and a lever removably secured to its lower end for rotating it; the chain secured at its ends to

the rear ends of said bars by means of eye-bolts secured in the said bolt-holes, said chain passing through the hole in said shaft, and the coupling-bar, substantially as shown and described, for the purposes set forth.

2. In a car-coupling, the combination with a head having the side openings, of the hook-bars having the hook and gage-lip at forward end, the swelled portion at the inner side, and the lug and bolt-hole at rear end, said bars being pivotally mounted within said side openings; the vertical shaft mounted in suitable openings centrally at the rear part of said head, said shaft having the chain-hole and the uncoupling-lever secured to its lower end; the spring pressing the rear end of said bars apart; the chain passing through said shaft and attached at its ends to the rear end of said bars, with suitable uncoupling-rods attachable to said uncoupling-lever, substantially as shown and described, for the purposes set forth.

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

MAHLON WELLS.
JOHN LOVETT.

Witnesses:

JNO. S. THURMAN,
E. T. SILVIUS.