(No Model.)

D. LIPPY.

CAR COUPLING.

No. 495,159. Patented Apr. 11, 1893.

Fig. 1

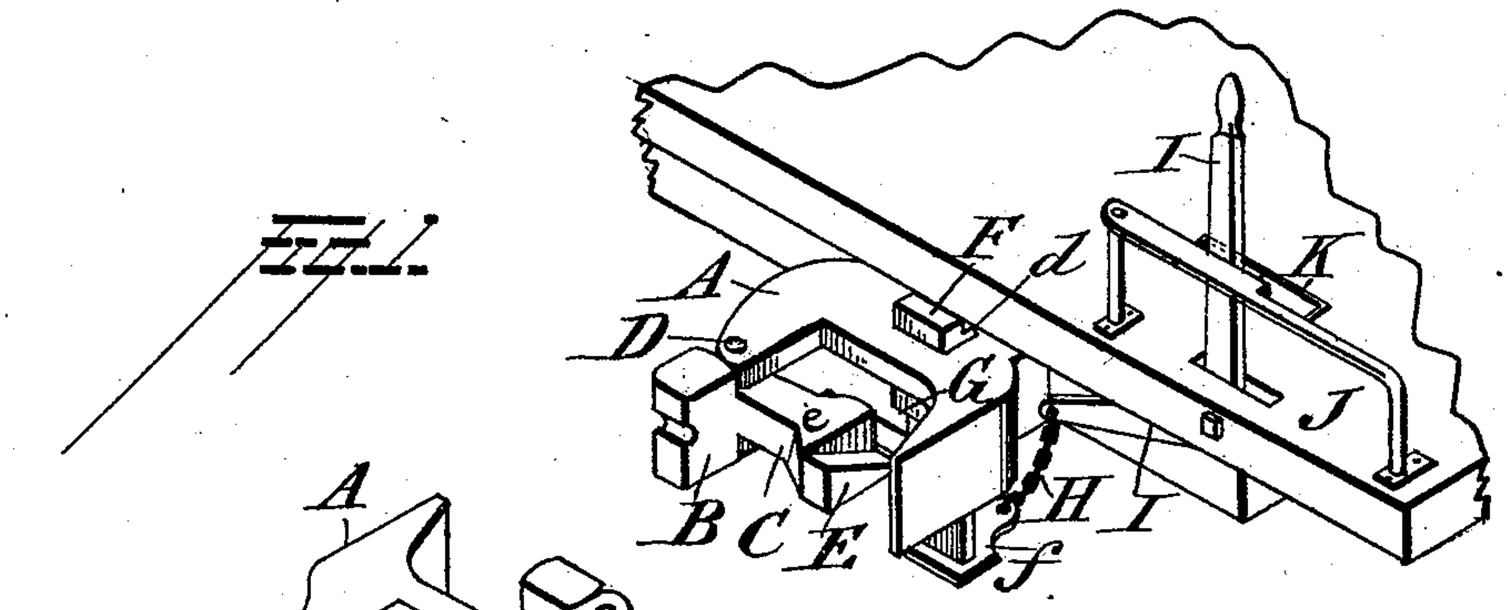


Fig. 2

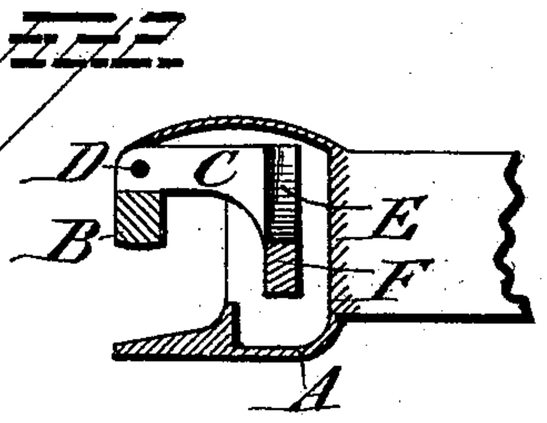


Fig. 3

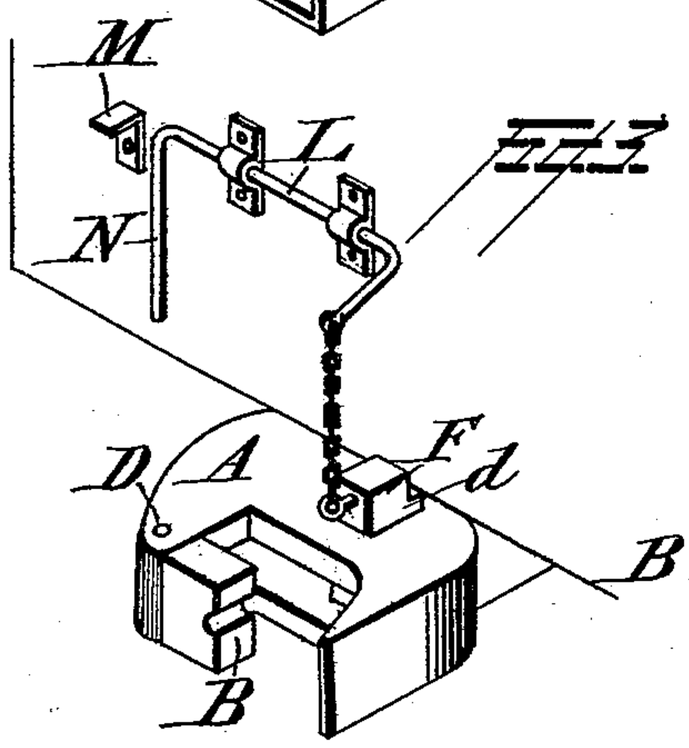
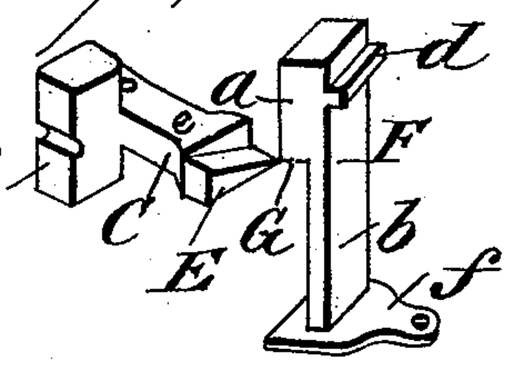


Fig. 4



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UNITED STATES PATENT OFFICE.

DAVID LIPPY, OF MANSFIELD, ASSIGNOR OF ONE-HALF TO DANIEL L. SPOTTS, OF CANTON, OHIO.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 495,159, dated April 11, 1893.

Application filed October 31, 1892. Serial No. 450,539. (No model.)

To all whom it may concern:

Be it known that I, DAVID LIPPY, a citizen of the United States, residing at Mansfield, in the county of Richland and State of Ohio, have invented certain new and useful Improvements in Car-Couplings; 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 relates to certain new and useful improvements in car couplings and is designed for use upon either passenger or freight cars; and it consists mainly in the combination of a specially constructed lever-arm and a locking pin, as will be hereinafter described and specifically claimed.

In the accompanying drawings, Figure 1 is a perspective view of my improved car coupling, and showing a portion of a passenger car with the coupling attached thereto. Fig. 2 is a top plan sectional view of a drawhead, a lever arm and a locking pin. Fig. 3 is a perspective view of a portion of a freight car, showing my improved coupling attached thereto; and Fig. 4 is a perspective view of a locking head, a lever arm and a locking-pin, showing the general construction of the same.

A in the drawings represents a drawhead which may be of any suitable construction, but the construction shown is deemed preferable; B a locking-head and C a lever-arm forming a part of the locking-head, the said locking-head having a thinned and laterally expanded lever arm portion *e* and between the head proper and the lever arm portion upper and lower vertical shoulders are formed; said locking head being pivoted in the drawhead by means of a pin D in rear of said shoulders as shown. This locking head swings horizontally on its pivot, and in case of a sudden jam the shoulders by abutting against the ends of the drawhead proper, will relieve the pivot pin and save it from being broken. The locking-head is also constructed with a wedge shaped end portion E tapering toward the back, and an expanded portion *e*.

F represents a locking pin which passes vertically through the drawhead. This pin is constructed with a recess G, the larger portion of said pin passing through an upper plate of the drawhead, and the lower thin portion *b* of the pin passing through the lower plate of the drawhead and extending some distance below the same. The upper end of the pin is provided with a bead or projection *d*. This bead rests upon the upper face of the drawhead when in normal position. The lower end of the pin is provided with a bottom plate portion *f*, and to this is secured one end of a chain connection H. The upper end of this chain connection is secured to the lever I, the said lever being pivoted in the car platform J. This lever is approximately L-shaped in form, and has its upper end rigidly secured by a catch K when the operator desires to retain the pin in a raised position.

In Fig. 3 I have shown my coupling attached to a freight car, it being substantially the same in construction as that shown in Fig. 1, except that instead of attaching the chain connection to the lower end of the locking-pin, it is attached to the upper end, and to a bell crank lever secured upon the end of a car.

The operation is substantially as follows: As the lever arm is swung backward when the locking head is being closed, the point of the wedge formed upon the end of the lever arm passes under the shoulder or recess G, thereby raising the locking pin; and by a continued downward movement of the lever arm the pin is raised until it is high enough to permit of the lever arm passing beneath it into the recess behind the pin. The pin being unsupported after the passage of the lever arm, returns to its normal position, thereby locking the lever arm. The pin may be released at any time by operating the hand lever I and thereby raising the locking pin to its proper height, allowing the lever arm to pass below the recess, and the pin may be retained in that position to prevent the cars coupling during the operation of switching, or for any other purpose, by placing the hand lever in the catch K. The same result can be obtained by operating the bell crank lever I attached to the freight car, by means of which the locking pin may be raised to uncouple cars. To retain the locking pin in a

raised position, the bell crank lever is pulled toward the angle plate M, the lever N resting upon the same, thereby preventing the locking pin from returning to its normal position.

What I claim as my invention is—

In a car coupling, the combination with a drawhead having a chambered top portion, of a combined locking-head and lever-arm, the said lever arm comprising in its construction a portion *e*, at the end of which is formed a wedge-shaped projection E; a movable vertical locking pin F comprising an end portion *f*, a thin portion *b*, a thickened portion, a bead or projection *d*, substantially as described.

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

DAVID LIPPY.

Witnesses:
T. R. ROBISON,
GEO. W. STATLER.