(No Model.)

J. B. EAVES.

CAR COUPLING.

No. 598,500. Patented Feb. 8, 1898.

Fig. 1

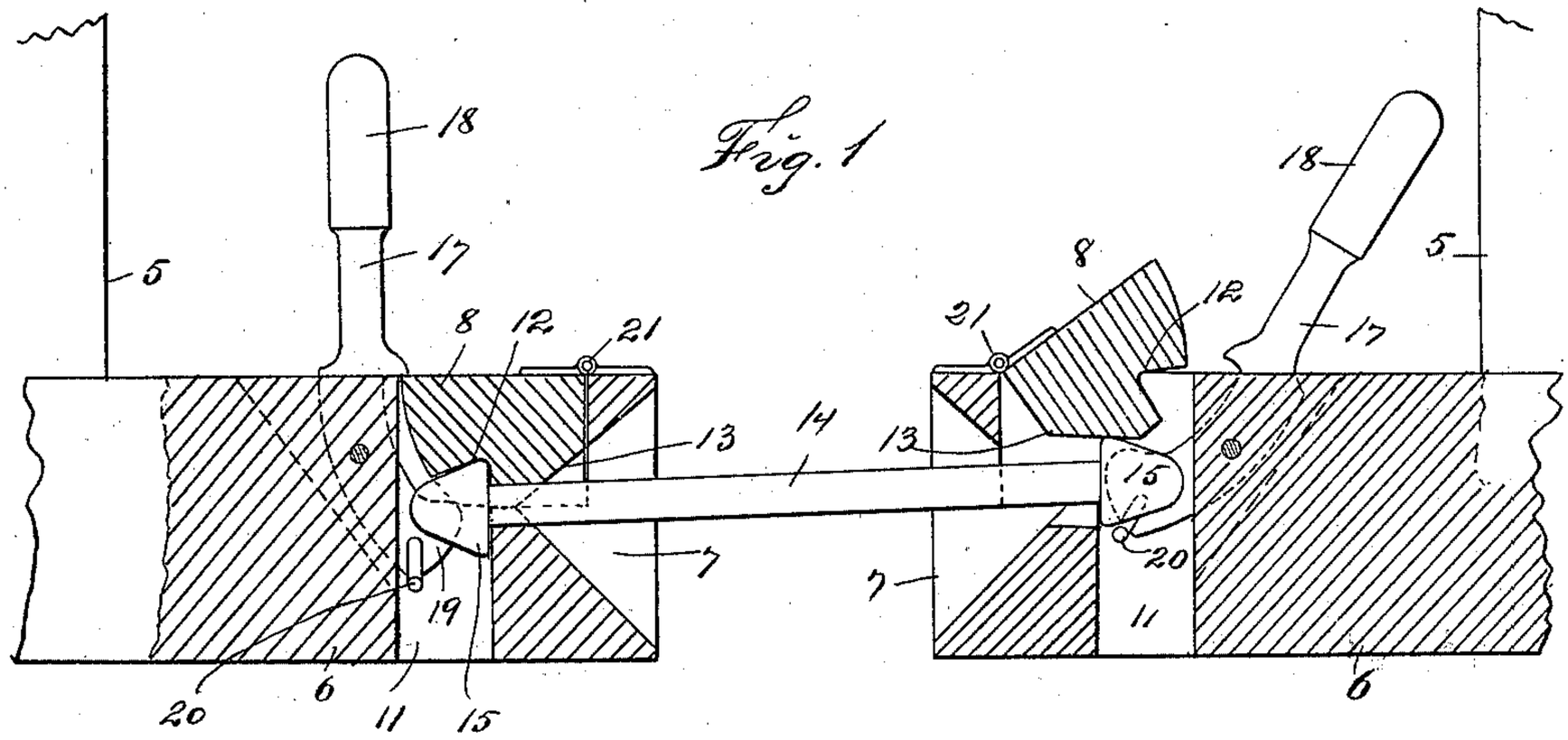


Fig. 2

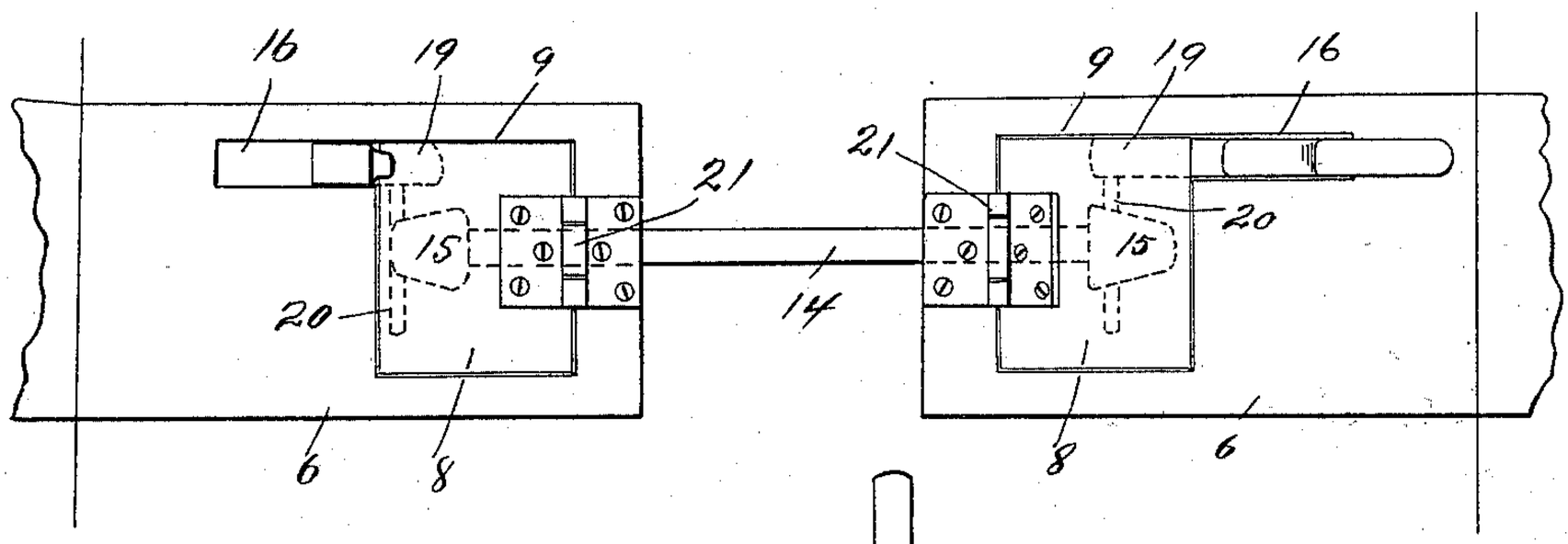
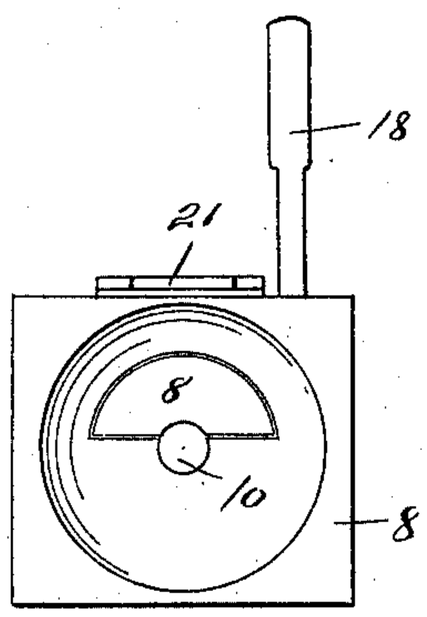


Fig. 3



WITNESSES:

C. Nordfors

C. Gerst.

INVENTOR

John Baxter Eaves.

BY

Edgar Tate & Co.

ATTORNEYS.

UNITED STATES PATENT OFFICE.

JOHN BAXTER EAVES, OF FOREST CITY, NORTH CAROLINA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 598,500, dated February 8, 1898.

Application filed June 23, 1897. Serial No. 641,895. (No model.)

To all whom it may concern:

Be it known that I, JOHN BAXTER EAVES, a citizen of the United States, residing at Forest City, in the county of Rutherford and State of North Carolina, have invented certain new and useful Improvements in Car-Couplers, of which the following is a full and complete specification, such as will enable those skilled in the art to which it appertains to make and use the same.

This invention relates to car-couplers; and the object thereof is to provide an improved device of this class which is simple in construction and automatic in the operation of coupling the cars, a further object being to provide a car with couplers at each end thereof which are similar in form, whereby a number of said cars may be automatically coupled by running them together in the usual manner, said couplers being provided with pivoted levers at the sides thereof, by means of which the cars may be uncoupled whenever necessary.

The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which—

Figure 1 is a sectional side view of two of my improved couplers; Fig. 2, a plan view thereof, and Fig. 3 an end view of one of said couplers.

In the drawings forming part of this specification I have indicated at 5 the ends of two cars and at 6 the coupler-heads connected therewith, and these coupler-heads are provided in their outer ends with conical openings 7 and on the upper sides thereof with hinged coupling-blocks 8, which are of the form shown in Figs. 1 and 2, and said coupling-blocks are hinged in openings 9, formed in the upper sides of the coupler-heads, and said openings are preferably rectangular in form.

The conical openings 7 in the outer ends of the coupler-heads 6 are partly formed in the hinged coupler-blocks 8, and at the apex of said conical opening 7 are formed central circular openings 10, which communicate with vertical chambers 11, formed in the coupler-heads 6 rearwardly of the conical opening 7, and said vertical chambers 11 are preferably open both at their upper and lower ends, and the hinged coupling-blocks 8 when the cars are coupled close the upper portion of said vertical chambers 11.

The hinged coupling-heads 8 are also provided on their under sides with notches or recesses 12, and the front sides thereof are beveled, as shown at 13, by reason of the fact that they form a part of the upper wall of the conical openings 7 in the coupler-heads 6, and I also provide a coupling-pin 14, which is provided at each end with a conical head 15, and formed in the upper portion of each of the coupler-heads 6, adjacent to one side thereof, is a vertical chamber 16, which opens into the chamber 11, and in each of which is pivoted a lever 17, which is provided at its upper end with a handle 18 and the lower end of which is provided with a forwardly-directed head 19, by means of which the hinged coupling-blocks 8 may be raised, as shown at the right of Fig. 1, and the heads 19 of the levers 17 are each provided with downwardly and transversely directed pins 20, and the operation will be readily understood from the foregoing description when taken in connection with the accompanying drawings and the following statement thereof.

The normal position of the parts of the coupler is that shown at the left of Fig. 1, and each car always carries at one end one of the coupling-pins 14, and in the operation of coupling the cars they are simply run together in the usual manner, when the head 15 of the link 14 is forced into the coupler-head of the car opposite that with which the coupling-pin is connected, and in this operation the hinged coupling-block 8 in said head is first raised, as shown at the right of Fig. 1, and then dropped into the position shown at the left of Fig. 1, when the cars will be securely coupled together, and whenever it is necessary to uncouple the cars one of the levers 18 is forced backwardly, as shown at the right of Fig. 1, and in this operation the head 19 of said lever raises the corresponding block 8 and the pin 20 raises the head 15 of the coupling-pin 14, as shown at the right of Fig. 1, when the cars may be uncoupled or drawn apart, as will be readily understood.

The hinge 21, by means of which the coupling-blocks 8 are connected with the coupler-heads 6, is shown of the usual form; but said hinge may be constructed in any desired man-

ner, and it will be apparent that changes in and modifications of the construction herein described may be made without departing from the spirit of my invention or sacrificing its advantages. It will also be apparent that suitable means may be provided for operating the levers 17 from the top or from the sides of the cars, and it will thus be seen that I accomplish the object of my invention by means of a device which is simple in construction and operation and which is also comparatively inexpensive.

In the operation of uncoupling the cars, as hereinbefore described, the head 19 of the lever 17 first strikes the under surface of the coupling-block 8 and partially raises the same, after which the pin 20 strikes the under surface of the conical head 15 of the coupling-pin 14, and said head is raised, as shown at the right of Fig. 1; but before the head 15 of the pin 14 is raised the coupling-block 8 is first raised far enough to allow the said head of the pin 14 to escape from the notches or recesses 12 in the lower side of the coupling-block 8.

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

1. A car-coupler, comprising a coupler-head in the outer end of which is formed a conical opening, said coupler-head being provided rearwardly of said conical opening, with a vertical chamber which is in communication with said conical opening, and in the upper side thereof, with an opening in which is hinged a coupling-block, said coupling-block being provided on the under side thereof, with a notch or recess, and the opening in which it is hinged being in communication with said conical opening, and said vertical chamber, and said coupler-head being also provided adjacent to one side thereof, with a chamber in which is pivoted a lever, said chamber being in communication with said vertical chamber, and said lever being provided at its lower end with a forwardly-directed head, and a pin which is secured to one side thereof, and directed downwardly and transversely of said vertical chamber, and a coupling-pin provided with a conical head at each end, substantially as shown and described.

2. The herein-described coupling device for cars, said device consisting of two similar coupler-heads, each of which is provided at its outer end with a conical opening, said coupler-heads being also provided rearwardly of said conical opening with a vertical chamber, and at the top thereof with an opening which is in communication with said conical opening, and said vertical chamber, coupling-blocks hinged in said last-named openings, and provided on their under sides with notches or recesses, chambers formed in the tops of said coupler-heads adjacent to one side thereof, and in communication with said vertical chamber, and levers pivotally mounted in said last-named chambers, and provided at their lower ends with outwardly-directed heads by which said coupling-blocks may be raised, said levers being also provided with downwardly-directed pins which extend transversely of said vertical chambers, and a coupling-pin which is provided at its opposite ends with conical heads, substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 12th day of June, 1897.

JOHN BAXTER EAVES.

Witnesses:
MATT MCBRAYEN,
JOSEPH F. FLACK.