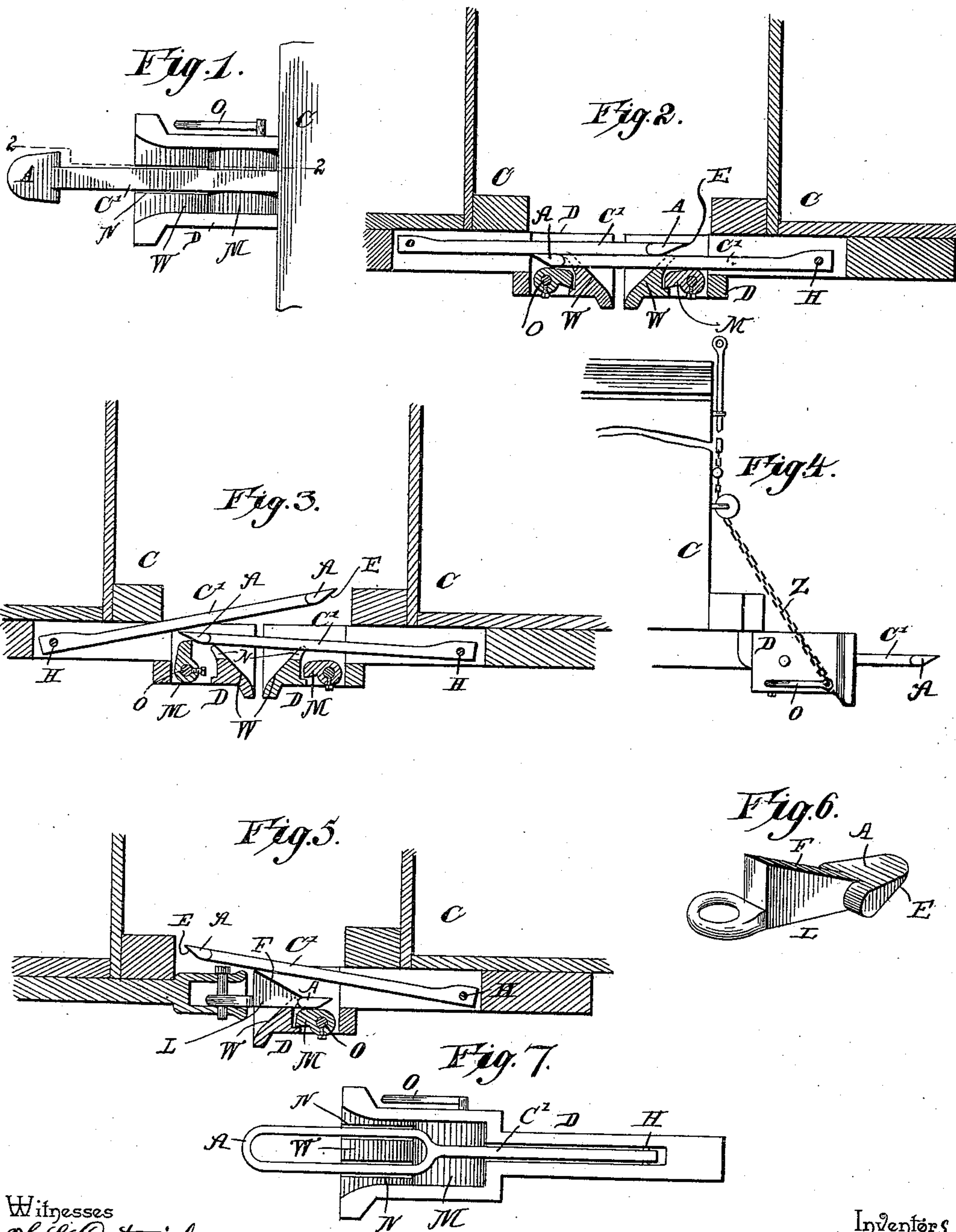


(No Model.)

W. I. & J. E. LANKFORD.
CAR COUPLING.

No. 446,356.

Patented Feb. 10, 1891.



Witnesses

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A. J. Collamer

By their Attorneys,

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UNITED STATES PATENT OFFICE.

WILLIAM I. LANKFORD AND JOHN E. LANKFORD, OF BEDFORD CITY,
VIRGINIA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 446,356, dated February 10, 1891.

Application filed October 2, 1890. Serial No. 366,878. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM I. LANKFORD and JOHN E. LANKFORD, citizens of the United States, residing at Bedford City, in the county of Bedford and State of Virginia, have invented a new and useful Car-Coupling, of which the following is a specification.

This invention relates to car-couplings; and the object of the same is to provide certain improvements upon devices of this character, all as hereinafter more fully described, and as illustrated in the drawings, in which—

Figure 1 is a plan view of a draw-head constructed in accordance with our invention. Fig. 2 is a longitudinal section of two draw-heads coupled together, taken on the line 2 2 of Fig. 1. Fig. 3 is a similar section showing the cam as operated to uncouple the two draw-heads. Fig. 4 is a side elevation of the draw-head, showing the devices for uncoupling the cars. Fig. 5 is a longitudinal section showing our improved coupling as connected by a peculiar link to a draw-head of the ordinary construction. Fig. 6 is a perspective detail view of said link. Fig. 7 is a plan view of a draw-head of slightly modified construction.

Referring to the said drawings, the letter C designates a car, beneath which is mounted in any well-known manner the open-topped draw-head D, and within this draw-head on a horizontal pin H is pivoted the coupling-bar C', having an arrow-head A with a beveled under front end E. The draw-head D has a web W rising obliquely from its mouth, and this web is provided with a notch N at its center, through which the bar B passes, and in which it rests.

In rear of the web is pivotally mounted the cam M, having an operating-arm O on the outer end of its shaft, and from this arm lead chains Z to the top and the sides of the car, whereby the operator can raise the cam without going between the cars. When the cam is so raised, it either lifts the body of its own coupling-bar C', thereby disengaging its head A from the other draw-head, or it lifts the head A of the coupling-bar C' of the other draw-head, as shown in Fig. 3, and disengages that head. In either case the cars are un-

coupled by operating either cam, as will be clearly understood.

When the cars are brought together to couple, the sharp-edged heads A first meet each other, and whichever one is lower causes its coupling-bar C' to pass beneath the other coupling-bar. The lowermost coupling-bar progresses until its beveled front end E strikes the oblique web W of the other draw-head, up which it rides. Passing over the upper end of the web, the body of the coupling-bar C drops into the notch N with its head A in rear of the web and just above the cam M, when the cars are coupled, as shown in Fig. 2. When so coupled, it will be seen that the lowermost coupling-bar sustains all the draft while the other coupling-bar stands above the head that is coupled in the web and holds it from becoming accidentally disengaged.

In Fig. 5 we have shown a link L, adapted to be connected by a pin to the ordinary draw-head now in use. For this purpose one end of the link has an eye of the construction of an ordinary link, while the other end has the head A of one of the coupling-bars C. Just in rear of the head A this link is provided with an inclined face F, which when the link is coupled into an ordinary draw-head stands just in front of such draw-head and serves to guide the head of the approaching coupling-bar upwardly and over said ordinary draw-head, whereby the head A at the front end of the link L is allowed to engage the notch N in the web W of our improved draw-head. It will be obvious that the link must always pass under the coupling-bar C, because the latter cannot be connected to an ordinary draw-head.

In Fig. 7 we have illustrated a draw-head having a notch and a coupling-bar of slightly different construction; but the operation is the same. In this case instead of one notch N at the center of the upper edge of the web W there are two such notches, one at each end of said upper edge, thereby leaving an upwardly-projecting pin between them, and instead of the coupling-bar C' having a head A it has a link-shaped body, as shown, the sides of the link resting in the notches. Of

course when another link of this construction strikes and rides up the web W it raises the upper link, and it engages the notches N the same as above described. The operation of the uncoupling devices is also the same.

What is claimed as new is—

1. In a car-coupling, the combination, with the draw-head having a web provided with an inclined front face and a notch through its body, of a coupling-bar mounted on a horizontal pivot in said draw-head in rear of the web and resting normally in said notch, substantially as described.

2. In a car-coupling, the combination, with the open-topped draw-head D and the rearwardly-inclined web W therein, having a notch N in its upper edge, of the connecting-bar C', mounted on a horizontal pivot through the draw-head in rear of said web and resting normally in the notch therein, and a laterally-enlarged head A at the front end of said bar, having a beveled under front end, as and for the purpose set forth.

3. In a car-coupling, the combination, with

a draw-head having a web provided with a notch in its upper edge, of a link having a head at one end for engagement with said notch and an eye at its other end standing in a horizontal plane, as set forth.

4. In a car-coupling, the combination, with a draw-head having an inclined web provided with a notch and a coupling-bar mounted on a horizontal pivot in said draw-head in rear of the web and resting normally in said notch, the free end of said bar having a laterally-enlarged head, of a link L, having an eye at one end and a head A at the other end, and an inclined face F upon said link between its ends, each and all substantially as and for the purpose hereinbefore set forth.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in presence of two witnesses.

WILLIAM I. LANKFORD.
JOHN E. LANKFORD.

Witnesses:

J. H. SIGGERS,
J. A. SAUL.