

(Model.)

T. ANDRESS.
CAR COUPLING.

No. 361,343.

Patented Apr. 19, 1887.

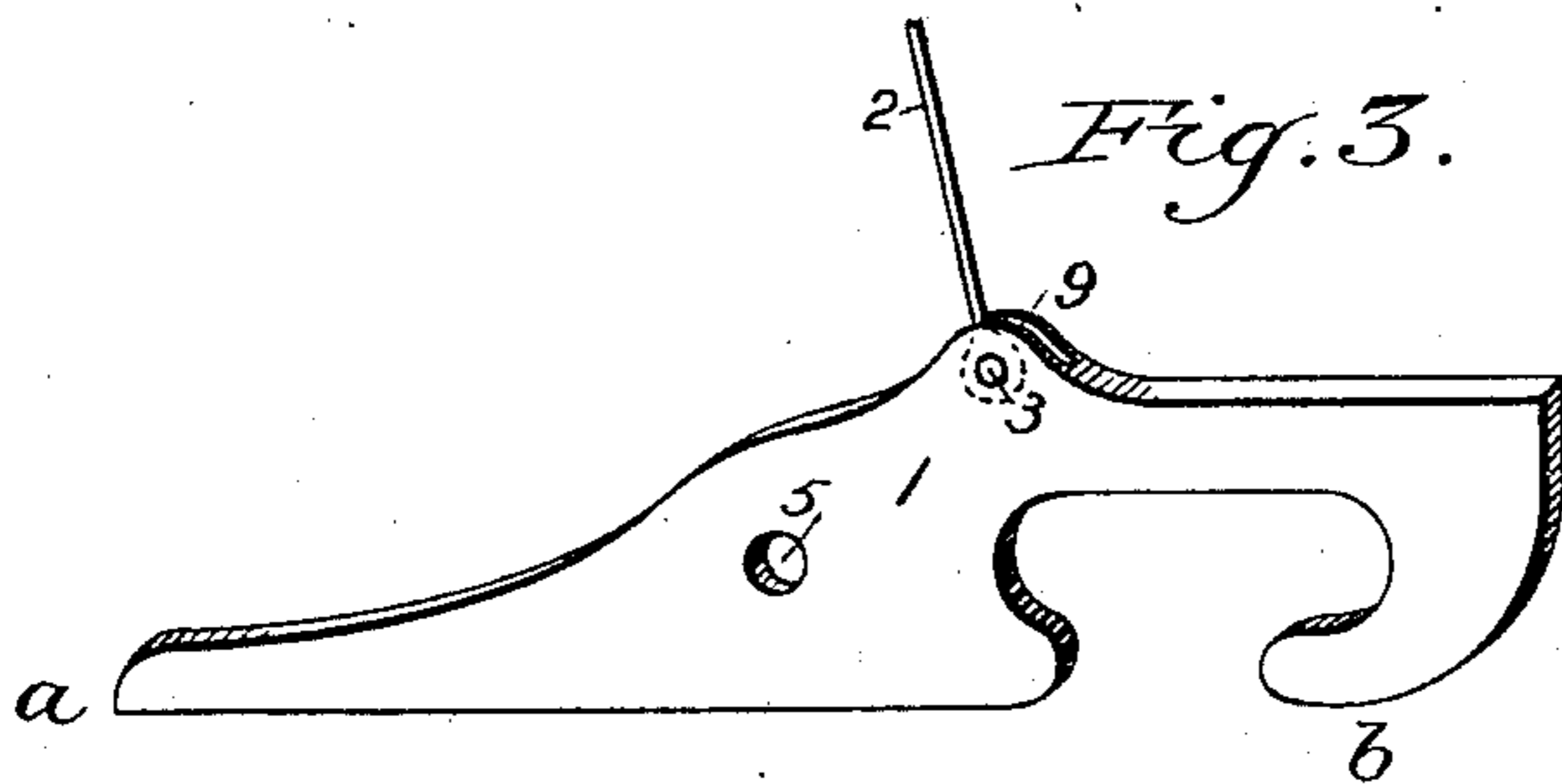
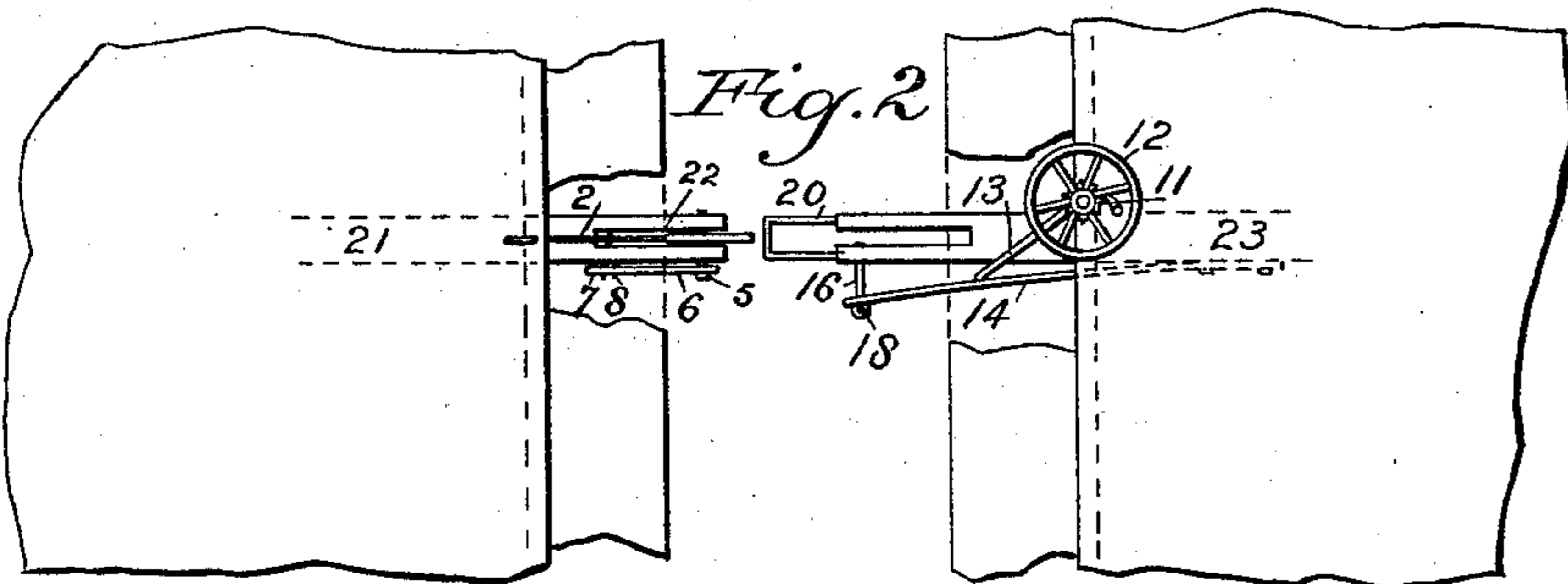
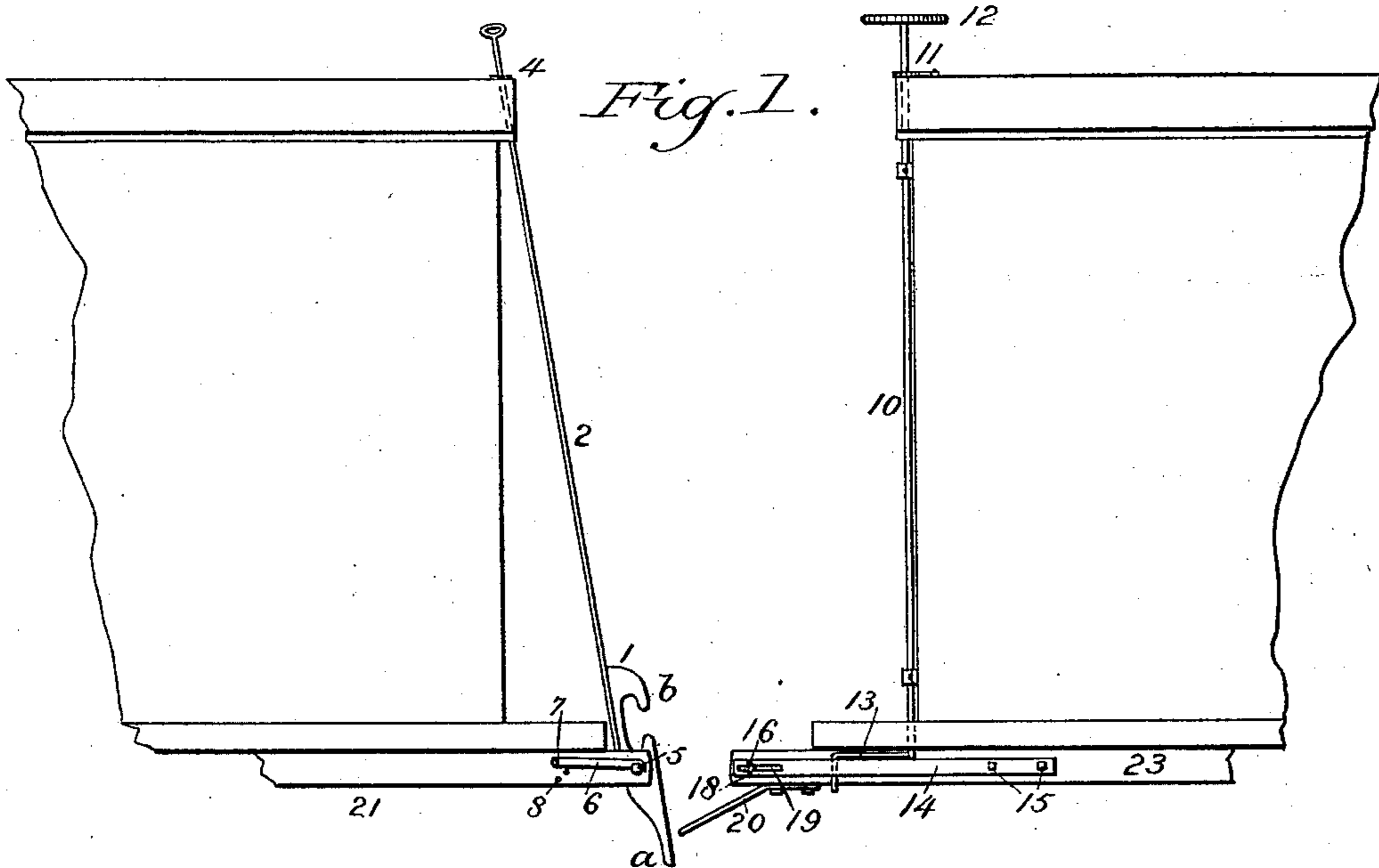
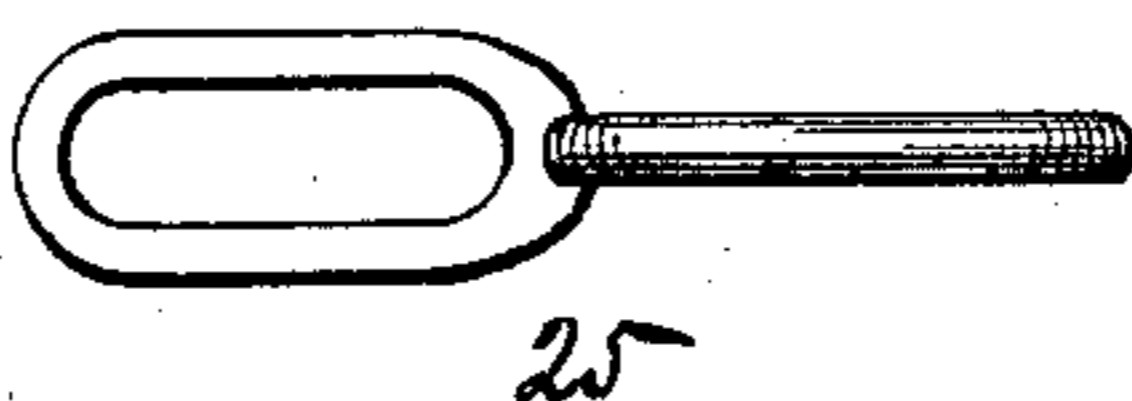


Fig. 4.

Witnesses:

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UNITED STATES PATENT OFFICE.

THOMAS ANDRESS, OF PITTSVILLE, WISCONSIN.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 361,343, dated April 19, 1887.

Application filed November 4, 1886. Serial No. 218,019. (Model.)

To all whom it may concern:

Be it known that I, THOMAS ANDRESS, a citizen of the United States of North America, residing at Pittsville, in the county of Wood and State of Wisconsin, have invented certain new and useful Improvements in Car-Couplers, of which the following is a description.

Figure 1 is a side view of the draw-heads on cars ready to be coupled together. Fig. 2 is a top view of draw-heads, showing position of self-coupler on draw-head 21 and uncoupler on draw-head 23. Fig. 3 shows the coupling-hook, and Fig. 4 is a link by which this coupler can be used in connection with the car-couplings commonly in use.

Similar letters and figures of reference refer to similar parts throughout the several views.

My invention relates to a new method of coupling cars in which a properly-balanced coupling-link, in the shape of a hook working in a vertical slot in the bumper or draw-head, acts as a self-coupler; and the objects of my improvement are, first, to provide a coupling for cars which will do away with the dangerous practice of brakemen stepping in between the cars in coupling or uncoupling the same; second, to save time in coupling or uncoupling cars; third, to guard against danger to running trains by being able to uncouple cars while in motion and stop them by means of the brakes, and, fourth, the ability to prevent coupling of cars when desired, although, at the same time, my device shall be a self-coupler.

The coupling-hook 1 is, by means of the bolt 5, secured in its place in vertical slot 22 of draw-head 21, and is so balanced and proportioned that, when it is in proper position coupled, the weight of the hook end holds it down on the pin 16 in the opposite draw-head, 23, and keeps the cars coupled together; but by aid of the rod 2, which is fastened to the coupling-hook 1 in the groove 9 by means of bolt 3, the coupling-hook 1 can be raised, as shown in Fig. 1.

When it is desired to couple two cars together, the arm 20 on draw-head 23 will strike the lower end of the coupling-hook 1 at *a* and throw the coupling-hook 1 into its proper position as a coupler. The coupling-hook 1 is so constructed that, hanging in a horizontal position, it will effect a coupling with another car by the hook at *b* slipping over the pin 16 in draw-head 23 and retain its hold on said pin. At 8

8 a bolt is inserted into draw-head 21 and through slot 22 to regulate the position of coupling-hook 1 by raising or lowering the point 55 and hook on same.

6 is a lever fastened to the side of the draw-head 21 by means of bolt 7, and one end of it fits into groove in the head of bolt 5 to keep said bolt 5 from slipping out of its position, and by raising said lever 6 the bolt 5 can easily be put in or withdrawn, as desired. The crease or groove 9 in top of coupling-hook, into which the rod 2 is inserted, is long and deep enough to permit of the coupling-hook 1 being raised or lowered at will.

14, on draw-head 23, is a spring fastened to draw-head by bolt 15, and in said spring 14 is a slot, 19, in which is inserted the flattened head of pin or bolt 16, in the outer end of which is secured an iron pin, 18, to keep the flat head of bolt 16 from slipping out of slot 19 in spring 14. This spring 14 when in its regular position lies flat against the side of draw-head 23, or is let into it the depth of the thickness of the spring, and holds the pin or bolt 16 in its position through draw-head 23 and through the vertical slot therein; but by means of the rod 10, on which is secured the shank 13, the spring 14 can be drawn out, and with it the pin or bolt 16, which would at once uncouple two cars. The rod 10 is supplied at 12 with a wheel and at 11 with an ordinary pawl and ratchet.

By means of the hook or link 25 (shown in Fig. 4) my coupling device can be used in connection with the ordinary couplers now in use. It consists of a double link, the ends of which are in planes at right angles to each other, so that by placing one of the ends of the link or hook in the vertical slot in bumper 23, and passing the pin 16 through it, the other end of the link is in a horizontal plane, thereby adapted to be coupled to a draw-head of the ordinary construction.

From the foregoing description, taken in connection with the accompanying drawings, the operation and advantages of my improved coupler will be readily understood. It will be seen that by the employment of the spring or keeper 14, uncoupling of cars can be easily effected without the necessity of bringing the cars close together for the purpose of releasing the hook from engagement with the transverse

bolt, such bolts ordinarily being secured rigidly in the draw-head.

By this arrangement I am enabled not only to attain as effective coupling as in other devices of this character, but at the same time I am also, as stated, enabled to regulate uncoupling without the additional labor of bringing the cars closer together for the purpose of effecting this result. I would also call particular attention to the arrangement of the transverse bolts 8 8 in draw-head 21, whereby I can regulate the height of the coupling-hook when in its horizontal position to facilitate coupling with cars upon which the draw-heads are either on a higher or lower plane.

By providing the spring 14 with an elongated or longitudinal slot, 19, the strain on the transverse bolt 16 is greatly relieved in coupling the cars, the bolt being so constructed as to yield to the pressure exerted by the coupling-hook when the two cars are brought together, and being thus displaced from its original position, and being forced inward, the greatest strain is upon the ends of the draw-head.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. The combination of two longitudinally-slotted draw-heads, a hook pivotally secured in one of said draw-heads, a spring secured to the side of the opposite draw-head, a bolt secured in the free end of said spring, and a vertical rod provided with shank on its lower end and rigidly-secured wheel on its upper end.

2. The combination of two longitudinally-slotted draw-heads, a hook pivotally secured

in one of said draw-heads, a spring secured to the side of the opposite draw-head and having its free end provided with an elongated slot, a bolt suitably secured in said slot, and a vertical rod provided with a shank on its lower end and rigidly-secured wheel on its upper end.

2. The combination of two longitudinally-slotted draw-heads, a hook pivotally secured in one of said draw-heads, a removable bolt having grooved head, a lever having its free end fitting in the groove in the head of said bolt, a spring secured to the side of the opposite draw-head, a bolt secured in the free end of said spring, and a vertical rod having its lower end provided with a shank and its upper end with a rigidly-secured wheel.

4. The combination of two longitudinally-slotted draw-heads, a hook pivotally secured in one of said draw-heads and having extended lower portion, a bolt, a spring secured to the side of the opposite draw-head, a bolt secured in the free end of said spring, and a vertical rod having its lower end provided with a shank and its upper end with a rigidly-secured wheel.

5. In a car-coupling, the combination of a vertically-slotted draw-head, a transverse bolt, and a link having its ends in planes at right angles to each other, one end being adapted to be secured in said vertical slot and the other end adapted to be secured in an ordinary draw-head.

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Witnesses:

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