

(No Model.)

H. NICHOLS.  
CAR COUPLING.

No. 427,007.

Patented Apr. 29, 1890.

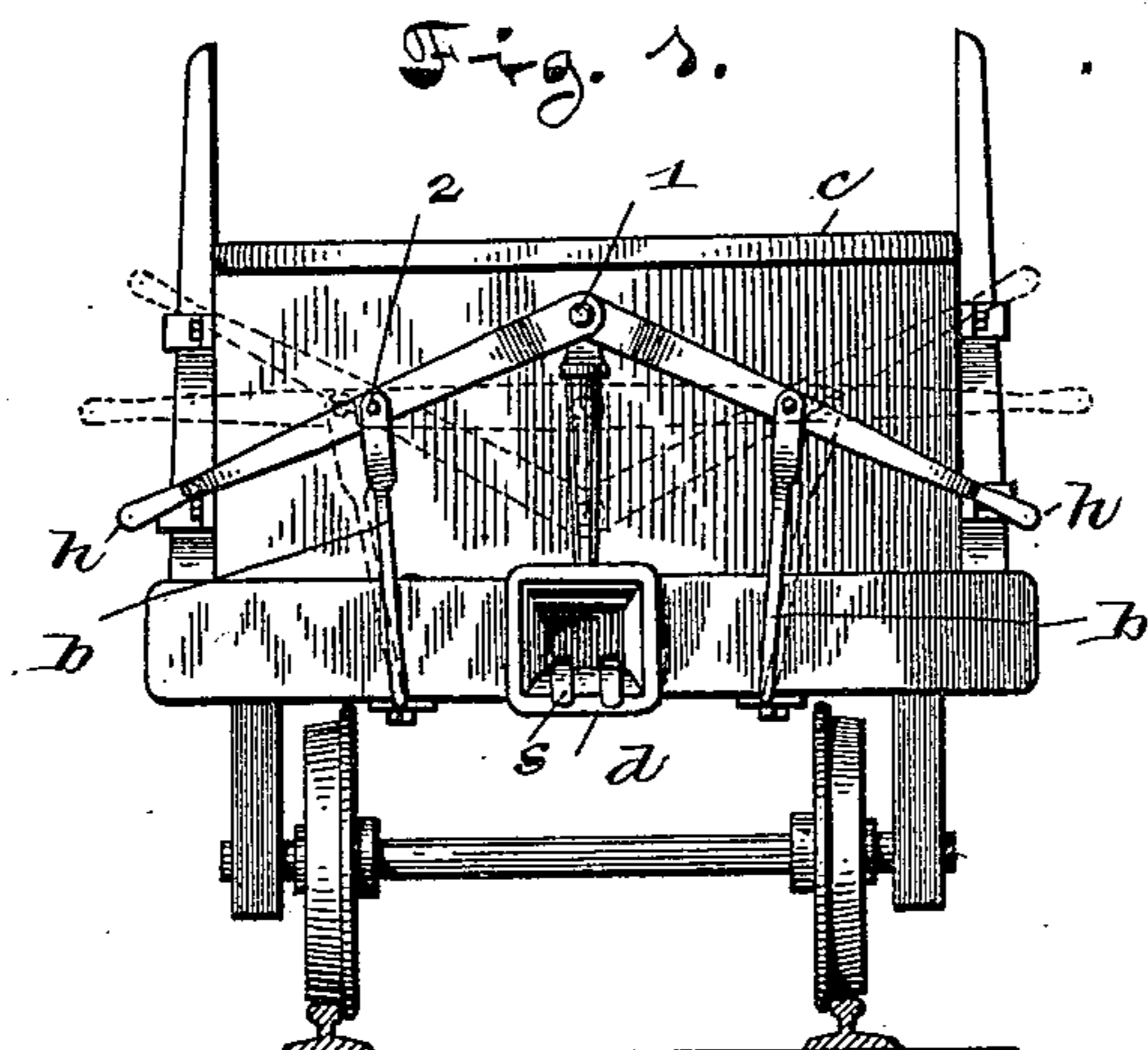


Fig. 2.

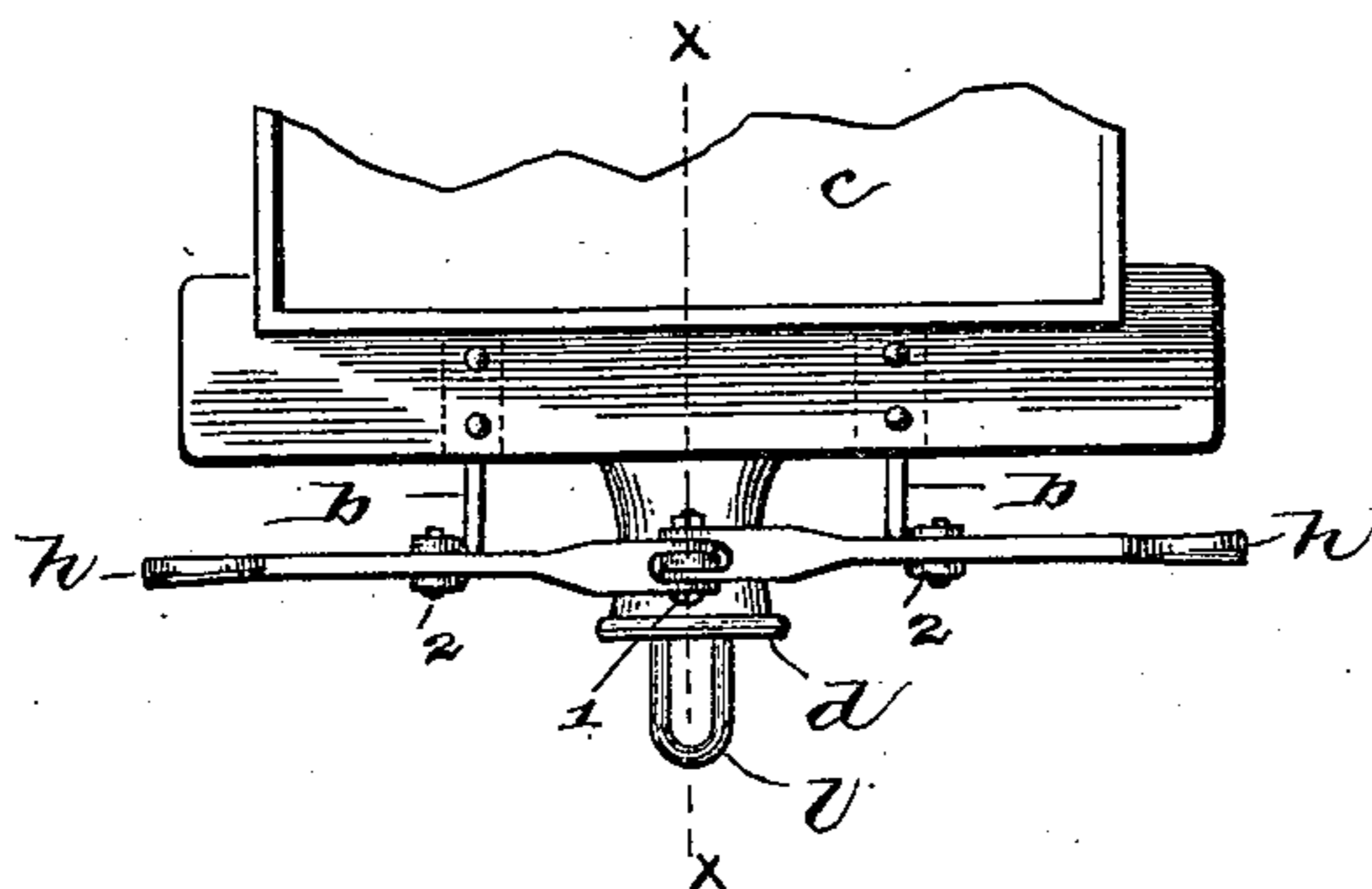


Fig. 3.

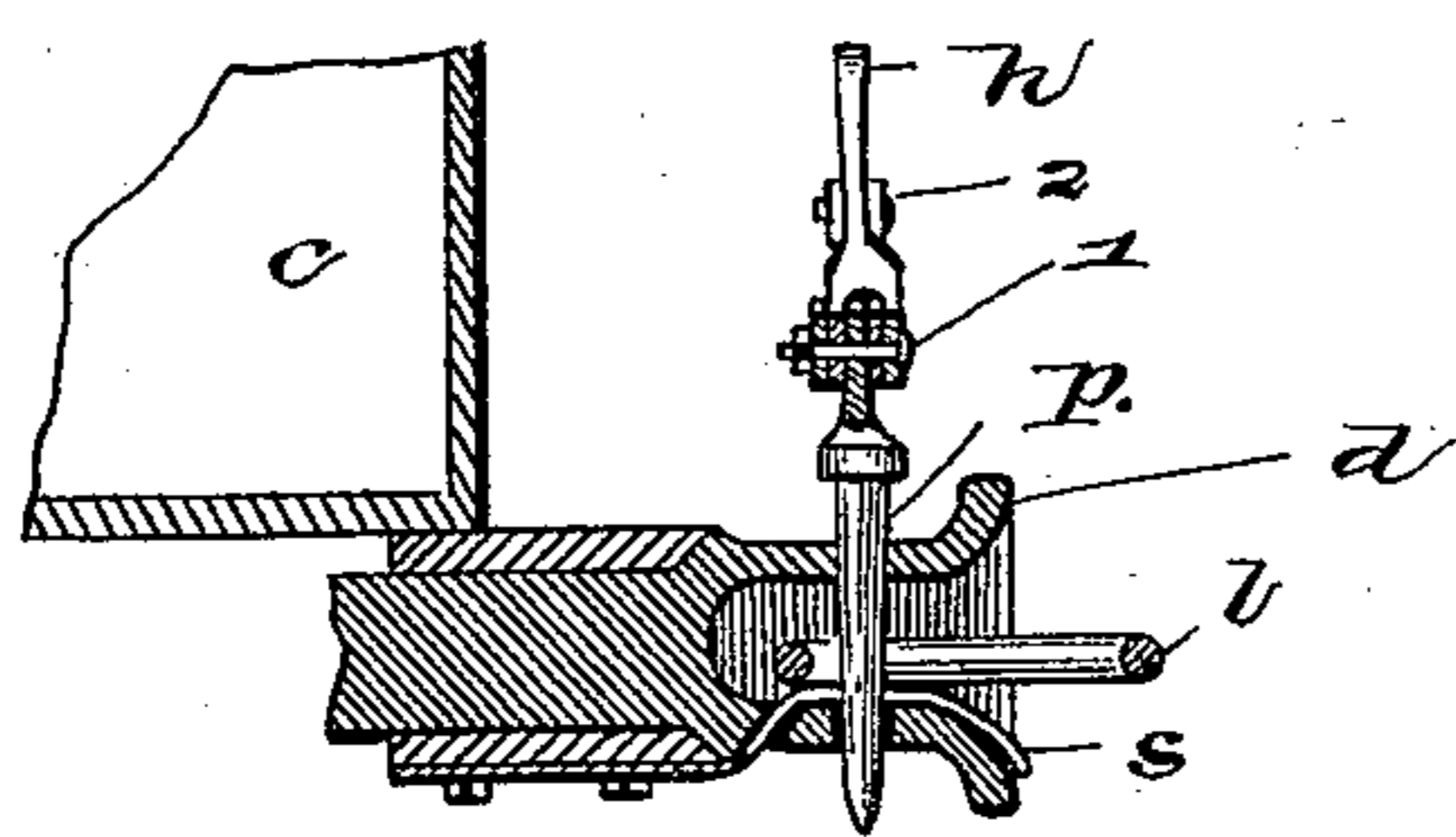


Fig. 4.

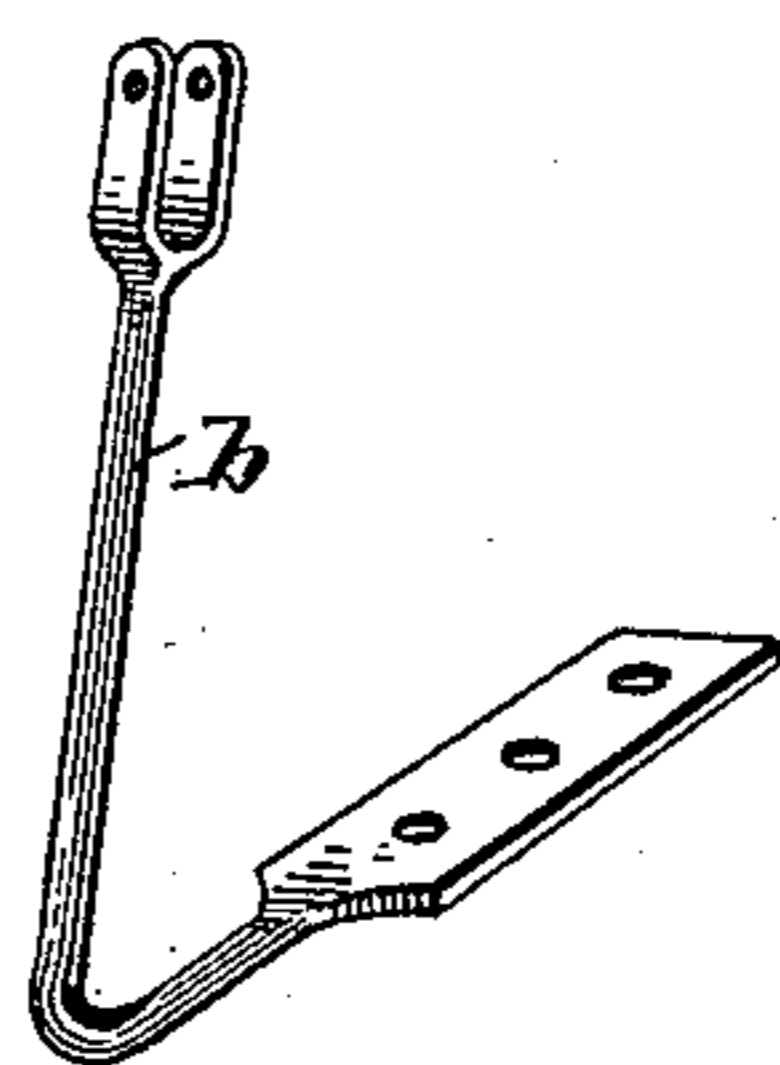


Fig. 5.



WITNESSES:

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HENRY NICHOLS, OF MOUNT MERIDIAN, INDIANA, ASSIGNOR OF THREE-FOURTHS TO JOSEPH W. RUARK, EMERSON E. RUARK, AND ANDREW J. BIRD, ALL OF SAME PLACE.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 427,007, dated April 29, 1890.

Application filed March 10, 1890. Serial No. 343,223. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY NICHOLS, of Mount Meridian, county of Putnam, and State of Indiana, have invented certain new and useful Improvements in Car-Couplings; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which like letters and figures refer to like parts.

My invention relates to the construction of car-couplings, and will be understood from the following description.

In the drawings, Figure 1 is an end view of a car with my improved device in place. Fig. 2 is a top view of Fig. 1. Fig. 3 is a section on the line *xx*, Fig. 2. Fig. 4 is a detail view, enlarged, of the spring-bar. Fig. 5 is a perspective view of the guiding-spring, also enlarged.

In detail, *c* is the car-body, which may be either box, flat, or any other kind of car. *d* is the draw-head connected thereto, in the mouth of which is inserted a guide-spring *s*, of the shape shown in Fig. 5, for the purpose of guiding and supporting the link as it enters the draw-head opening.

*h* are handles centrally pivoted at 1 to the coupling-pin *p*, which passes through the link *l*, these handles or levers being also pivoted at 2 2 to the spring-bars *b*, fastened to the cross-bar of the frame-work of the car-body, preferably beneath and in the manner shown, though the method of fastening may be varied according to the needs of construction. The handles *h*, of which there are preferably two, extend on either side far enough to be grasped by the brakeman, so that the coupling-pin may be operated from either side without passing between the cars, thus avoiding any danger of injury to the operator.

The dotted lines in Fig. 1 indicate the movement of the parts in coupling and uncoupling the cars. Thus, to illustrate the working of my device, the brakeman takes hold of one of the handles *h* on either side, and by throwing it up the pin *p* is forced down, also carrying with it the inner end of the opposite handle, and the two handles, after passing the

level position, (shown by the central dotted lines in Fig. 1,) take that indicated by the lower dotted lines, the pin being dropped down through the draw-head and link, coupling the car. By pressing down upon either side of the handles *h* the pin is lifted, the handles taking the position shown in the full lines in Fig. 1, and the cars are then uncoupled. During this operation the spring-bars *b* are forced out in the position shown by the dotted lines on either side, but their natural tension brings them back to their original position. Thus as the handles *h* are drawn up, forcing the pin *p* down, the spring-bars are first thrown out on either side, and are then drawn by their tension into normal position again, and this tension aids in holding the pin down in place through the link. When the handles *h* are forced downward, lifting the pin, the tension of these spring-bars assists in throwing the pin up out of engagement with the link, holding it firmly in a raised position, as shown in Fig. 1. The pin, therefore, cannot drop by its own weight, or even by a slight pressure, as the tension of the spring-bars will resist any such movement; nor when the cars are coupled can this pin be raised or dislodged by any slight jar or movement, as the pressure on the spring-bars will operate to hold it down in engagement with the link. These spring-bars, therefore, become an important factor in aiding the movement in either direction for coupling or uncoupling and for holding the parts in position.

What I claim as my invention, and desire to secure by Letter Patent, is the following:

1. A car-coupler comprising handles *h* and spring-bars *b*, to which such handles are pivoted, connected to the frame-work of the car, the inner ends of the handles pivoted to the coupling-pin, in combination with a car *c*, having a draw-head *d*, substantially as shown and described.

2. A car-coupler comprising one or more handles *h*, pivoted midway to a spring-bar *b*, the latter fastened to the car-frame, the inner end of such handle pivoted to the coupling-pin, substantially as shown and described.

3. In a car-coupling, one or more handles *h*,

spring-bars *b*, fastened to the car-frame and centrally pivoted to such handles, the pin *p*, pivoted to the inner end of such handle or handles, the draw-head *d*, provided with a  
5 guiding-spring *s*, and the car *c*, all combined substantially as shown and described.

4. In a car-coupling, the car *c*, having a draw-head *d*, a guide-spring *s*, seated therein, the link *l*, and a locking device comprising  
10 one or more handles *h*, their inner ends pivoted to the coupling-pin *p*; and one or more

spring-bars bolted to the car-frame and pivoted midway of the handles *h*, all combined substantially as shown and described.

In witness whereof I have hereunto set my 15 hand this 26th day of February, 1890.

his  
HENRY X NICHOLS.  
mark

Witnesses:

J. W. RUARK,  
E. B. GRIFFITH.