

(No Model.)

J. A. & L. R. WILLIAMS.  
CAR COUPLING.

No. 488,490.

Patented Dec. 20, 1892.

Fig. 2.

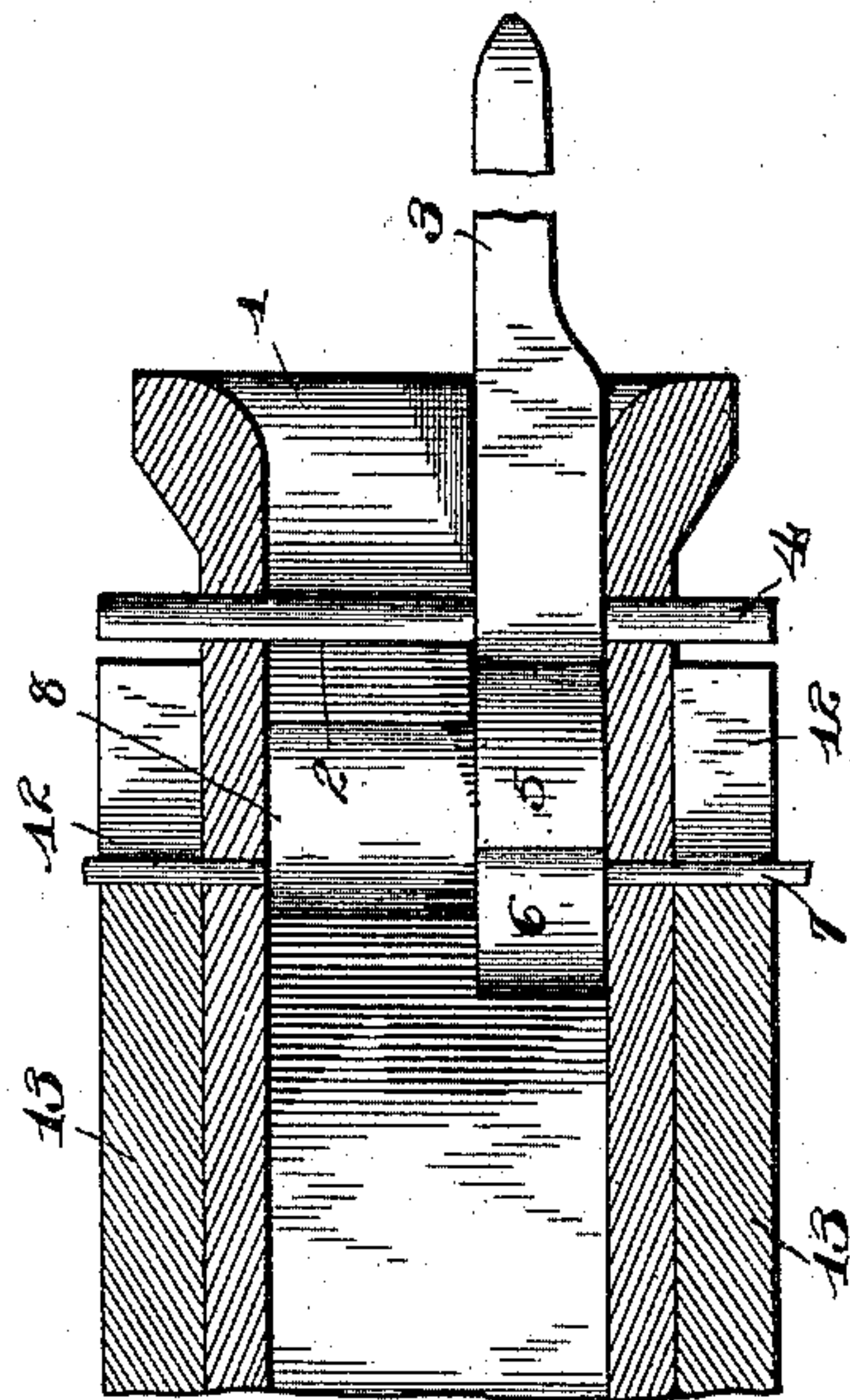


Fig. 3.

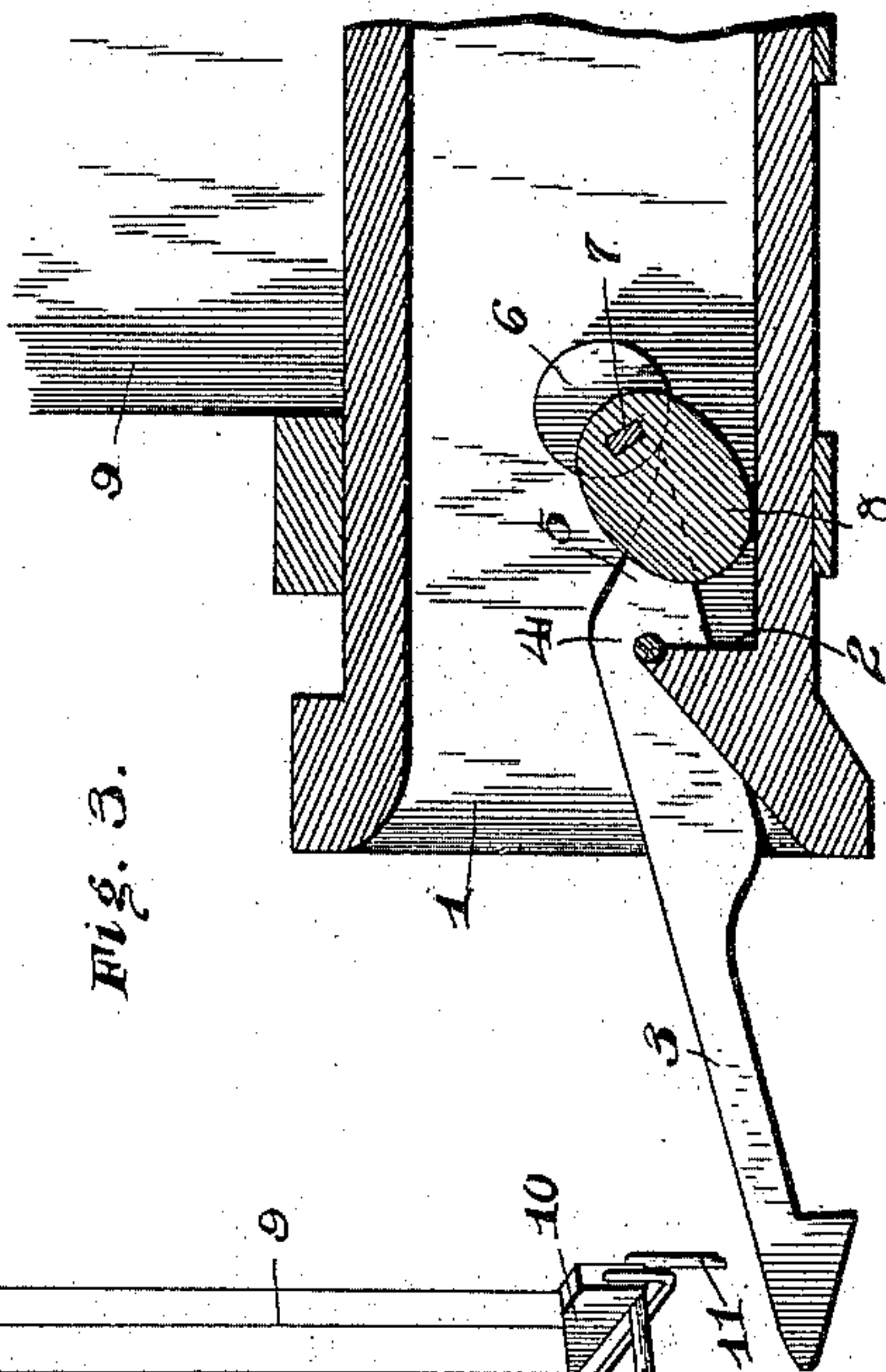
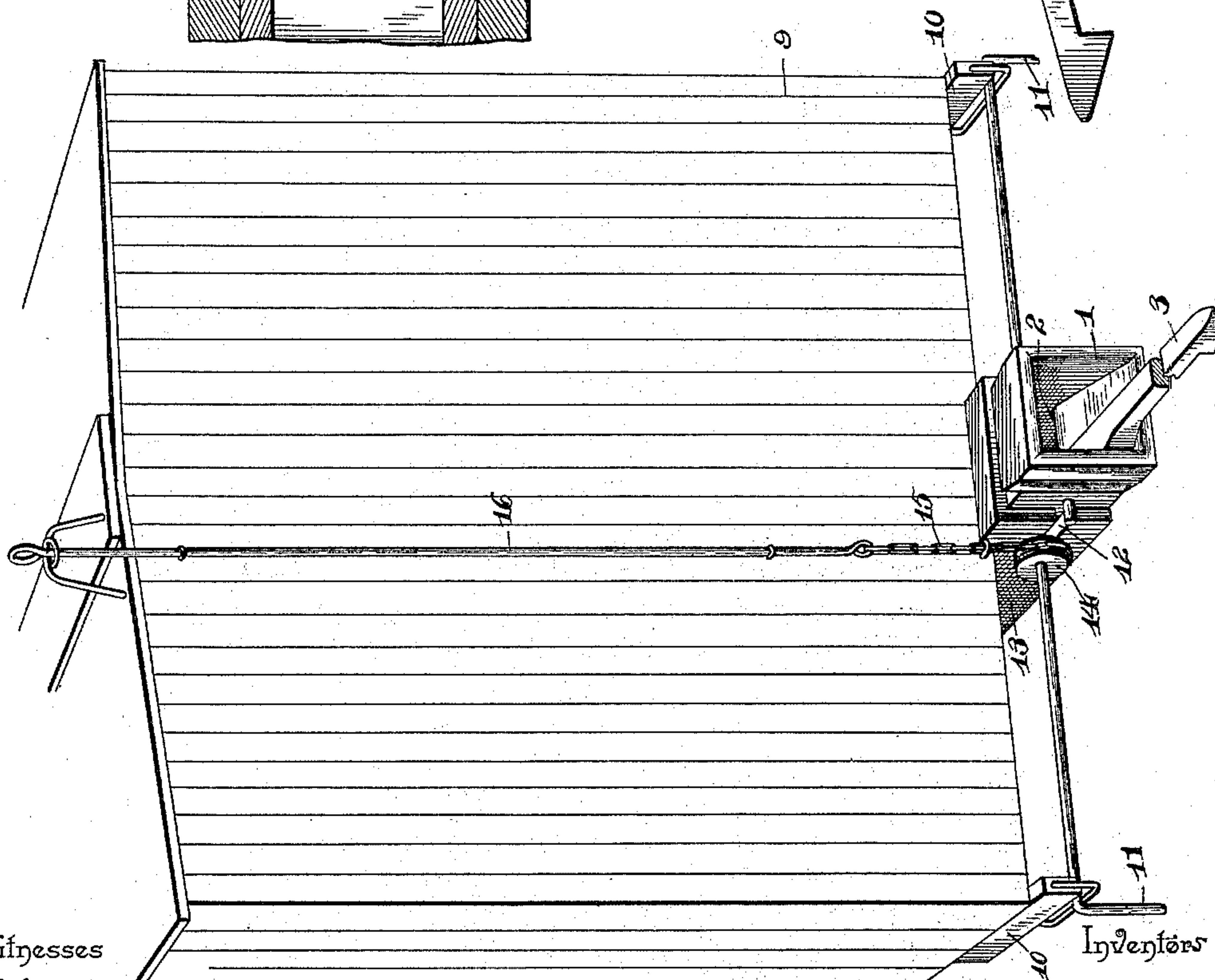


Fig. 1.



Witnesses

Charles Ford  
H. P. Riley

By their Attorneys,

CA Snow & Co.

Inventors

John A. Williams &  
Leonidas R. Williams.



# UNITED STATES PATENT OFFICE.

JOHN A. WILLIAMS AND LEONIDAS R. WILLIAMS, OF OZARK, MISSOURI.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 488,490, dated December 20, 1892.

Application filed September 6, 1892. Serial No. 445,180. (No model.)

*To all whom it may concern:*

Be it known that we, JOHN A. WILLIAMS and LEONIDAS R. WILLIAMS, citizens of the United States, residing at Ozark, in the county of Christian and State of Missouri, have invented a new and useful Car-Coupling, of which the following is a specification.

The invention relates to improvements in car couplings.

The object of the present invention is to provide a simple and inexpensive car coupling adapted to be readily applied to either passenger coaches or freight cars, and capable of coupling automatically, and of being readily uncoupled without necessitating a train hand going between cars.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings and pointed out in the claims hereto appended.

In the drawings—Figure 1 is a perspective view of a car coupling constructed in accordance with this invention and shown applied to a freight car. Fig. 2 is a horizontal sectional view. Fig. 3 is a vertical longitudinal sectional view.

Like numerals of reference indicate corresponding parts in all the figures of the drawings.

1 designates a draw-head having a longitudinal opening provided at one side of its front with a shoulder 2 having a beveled front face and arranged adjacent to the shoulder 2, which forms a stationary catch, between the same and the opposite side of the draw-head is pivotally mounted a horizontally disposed hook 3, which projects forward from the draw-head and is adapted to engage the catch or shoulder 2 of a companion draw-head. The hook 3 which is mounted on a transverse pin 4, is provided with a rearward extension 5 which extends beneath a rearwardly extending cam 6 of a transverse shaft 7 which is provided with a forwardly extending cam 8 arranged in a line with and in rear of the stationary catch 2, and adapted when the shaft is rocked to lift a hook 3 of a companion draw-head out of engagement with the stationary catch 2 for uncoupling. The rock shaft extends to opposite sides of the car 9, and has its ends arranged in depending keep-

ers 10 and provided with depending handles 11 which operate as weights to maintain the forwardly extending cam 8 depressed, and the other cam elevated and out of engagement with the extension 5 of the hook, whereby the parts will normally be in position for coupling. The shaft 7 and pin 4 are arranged in openings 12 of side bars 13, and the shaft has mounted on it a pulley 14 on which is wound one end of a chain 15 or similar connection, which has its other end connected with a rod 16 extending to the top of the car and terminating at its upper end in a handle and adapted to be moved vertically to rock the shaft.

In applying the car coupling to a passenger coach, which is provided at each end with a platform, the construction will remain the same with the exception that the rod 16 will be mounted in the railing of the platform, and the shaft will not extend to the sides of the car, and instead of employing handles, a single weighted arm disposed with the same relation to the cams as the handles shown are will be sufficient.

It will be seen that the car coupling is simple and comparatively inexpensive in construction, that the parts are normally in position for automatic coupling, and that when the rock shaft is turned, the outer end of the hook will be elevated simultaneously with the elevation of the forwardly extending cam which will disengage from the stationary catch the pivoted hook of another draw-head, thereby effecting uncoupling.

What we claim is—

1. In a car coupling, the combination of a draw-head provided at one side with a stationary catch having its front face beveled, and its rear face shouldered, a pivoted hook arranged adjacent to the catch and extending forward and projecting from the draw-head, and a rock-shaft arranged in rear of the hook and the catch and provided with cams located within the drawhead, one of which is arranged to engage and depress the inner end of the hook, and the other of which is arranged in rear of the catch and adapted to lift a hook out of engagement with the same, substantially as described.

2. In a car coupling, the combination of a draw-head provided at one side with a stationary catch having its front face beveled



and its rear face shouldered, a hook pivoted at the other side of the draw-head and projecting therefrom and provided at its rear end with an extension, a rock shaft arranged in rear of the hook and the catch, a rearwardly projecting cam located within the draw-head arranged above the extension of the hook and adapted to depress the same and mounted on the rock shaft, and a forwardly extending cam located within the draw-head mounted on the rock shaft and arranged in rear of the stationary catch and adapted to disengage a hook therefrom, and means for holding the forwardly extending cam normally depressed and the rearwardly extending cam normally elevated, substantially as described.

3. In a car coupling, the combination of a draw-head provided at one side with a stationary catch, a hook pivotally mounted at the other side of the draw-head and projecting therefrom and provided with a rearward extension, a rock shaft arranged in rear of the hook and the catch, the cams located within the draw-head and mounted on the

shaft and extending therefrom in opposite directions, and the depending weighted handles arranged at the ends of the rock shaft and holding the cams out of engagement, substantially as described.

4. In a car coupling, the combination of a draw-head having a stationary catch, a hook pivotally mounted in the draw-head and extending therefrom, a rock shaft provided with weighted handles, the oppositely disposed cams mounted on the rock shaft, a pulley mounted on the rock shaft, and connections between the top of the car and the pulley whereby the shaft may be rocked, substantially as described.

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

JOHN A. WILLIAMS.  
LEONIDAS R. WILLIAMS.

Witnesses:  
M. R. LOGAN,  
J. E. NEVILLE.