(No Model.)

J. W. RAMSEY.

CAR COUPLING.

No. 518,355. Patented Apr. 17, 1894.

Fig. 1.

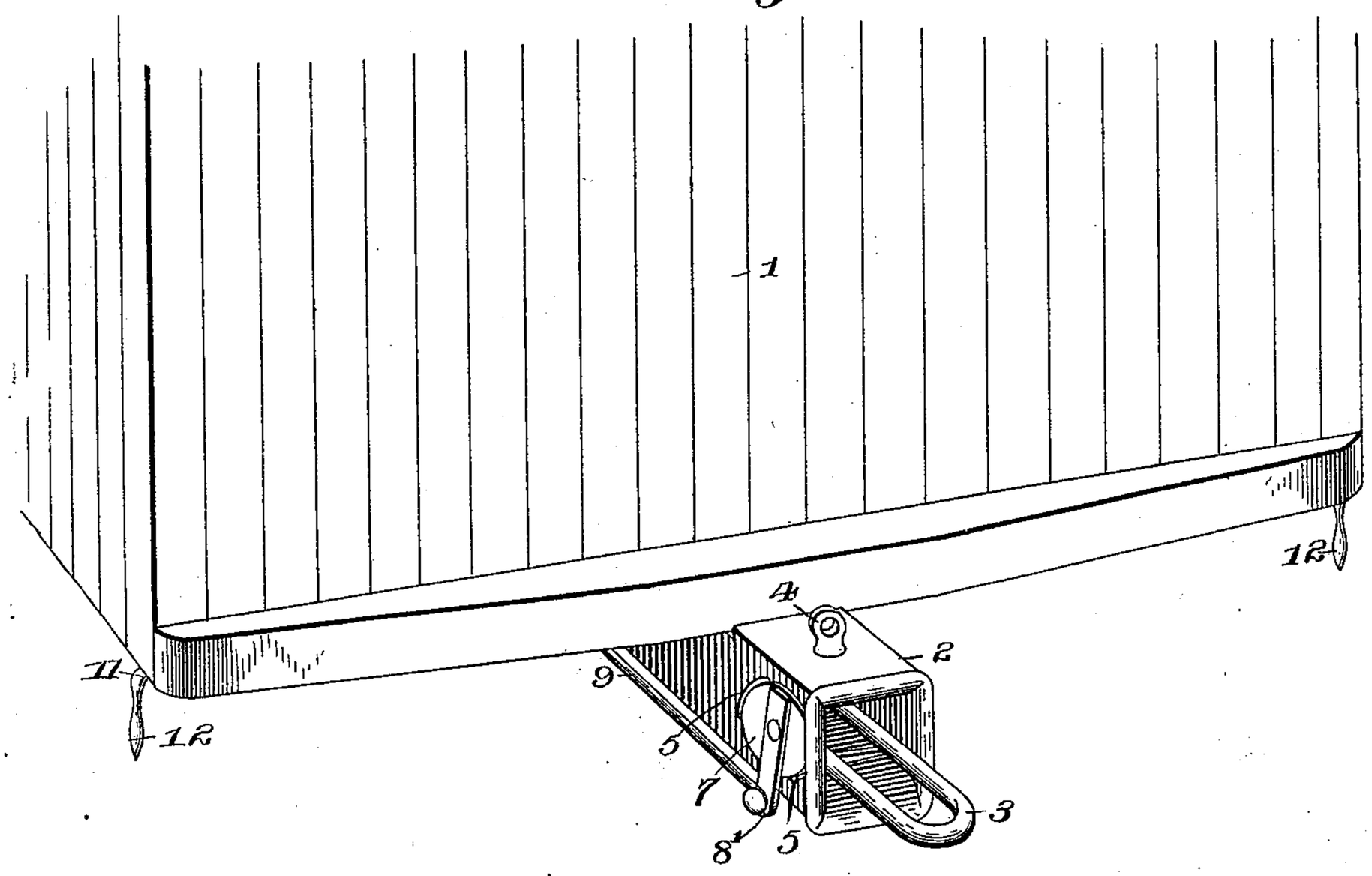


Fig. 2.

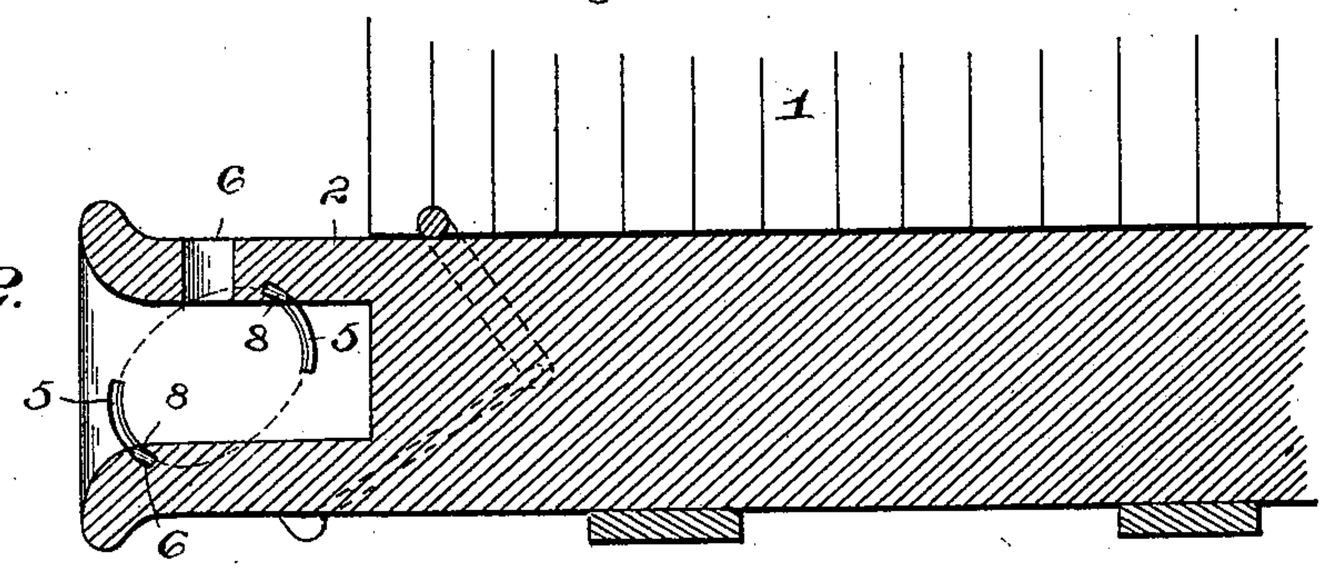


Fig. 3.

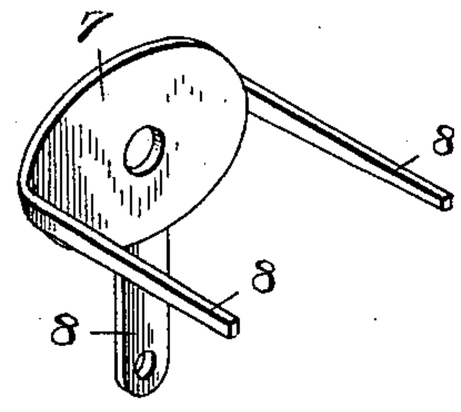
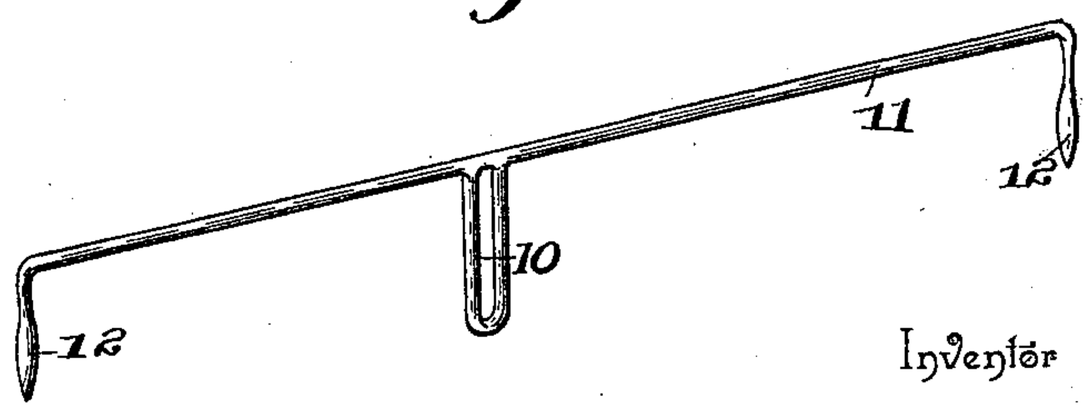


Fig. 4.



Witnesses

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CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 518,355, dated April 17, 1894.

Application filed November 20, 1893. Serial No. 491,459. No model.)

To all whom it may concern:

Be it known that I, JAMES W. RAMSEY, a citizen of the United States, residing at Cairo, in the county of Alexander and State of Illinois, have invented a new and useful Car-Coupling, of which the following is a specification.

My invention relates to improvements in car-couplings, and more especially to that part thereof known as the link-lifter, the objects in view being to provide a simple mechanism designed to be applied to any of the ordinary pin-and-link styles of couplers and adapted to be operated from the side of the car for raising the link into alignment with an approaching draw-head.

With these and other objects in view the invention consists in certain features of construction hereinafter specified and particularly pointed out in the claims.

Referring to the drawings:—Figure 1 is a perspective view of a coupler-head provided with my invention, the same being applied to one end of a car. Fig. 2 is a longitudinal sectional view through the coupling-head. Fig. 3 is a detail in perspective of the oscillating-link support. Fig. 4 is a detail of the rock-shaft for operating this support.

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

The car-body 1 is provided at one end with any ordinary link and pin style of draw-head 2, in which the link 3 is connected by means of the pin 4. One side of the draw-head is provided at diagonally opposite points with curved slots 5, the front slot being at the lower front corner of the head, and the rear slot at the upper rear corner, said slots being concentrically arranged as shown. The lower end of the front slot and the upper end of the rear slot occur at the ends of transverse recesses 6 formed in the bottom and top respectively of the interior of the draw-head.

Concentrically pivoted with relation to the slots at that side of the draw-head at which the slots are located, is a metal plate 7, and at the opposite ends of which are disposed lateral prongs or tines 8 which enter and pass through the slots 5, and when said plate is in an inclined position the tines rest in the recesses 6 provided for their reception and heretofore described as being formed in the bottom and top of the draw-head so that the surface of the head is unbroken and the tines do not project beyond the same. An arm 8′ extends from the plate at a right angle thereto and is connected by means of a link 9 to the crank-portion 10 formed in a transverse rock-shaft 11. This rock-shaft 11 is arranged in suitable transverse bearings located upon the under side of the car and terminates beyond the sides of the car in handles 12, whereby the said shaft may be operated at the side of the car and the link elevated in a manner hereinafter described without the necessity of the operator passing between the approaching cars.

The operation will be at once obvious from an inspection of the drawings, in connection with the foregoing description, but may be briefly described as follows:—A link being in position in the draw-head ordinarily depends or hangs downward at its outer end, and it has been the objects of these devices to elevate the link from the side of the car in order to obviate the necessity of the operator passing between the cars and hence risking his life by being caught between the approaching cars. By my invention a partial rotation of the rock-shaft 11 through the medium of its crank-handles at its ends causes the crank-portion of said shaft through the link 10 to oscillate the arm 8′ and the metal-plate from which the tines are disposed. This causes the front tine to move upward and the rear tine downward and inasmuch as the link lies in their paths the rear end of the link will be depressed and the front end elevated and thus it will be held in position to couple with an approaching draw-head.

From the foregoing description in connection with the accompanying drawings it will be seen that I have provided a very simple device that may be applied to any of the well known link-and-pin styles of couplings now in use and which will require but very little alteration of the same to adapt the two for co-operation, and also that the operation is positive and cannot fail. It will furthermore be observed that as soon as released the tend-

ency of the rock-shaft is to assume such position that the tines will take their positions in their respective recesses, so that a link being inserted in the draw-head will meet with no obstruction upon their part.

Having described my invention, what I claim is—

1. The combination with a draw-head provided at one side with concentric diagonally disposed curved slots, of an oscillating plate pivoted between the slots, tines extending inwardly from the slots and adapted to engage a link, and means located at the sides of the car for oscillating the plate, substantially as specified.

2. The combination with a draw-head having curved concentric slots arranged diagonally opposite each other in one side of the head, an oscillating plate concentrically pivoted to that side of the head with relation to the slots and having laterally disposed link-engaging tines, an arm extending from the plate at an angle thereto, a transverse cranked shaft located under the car, a handle for operating the shaft, and a link between the crank-portion of the shaft and the arm, substantially as specified.

3. The combination with a draw-head provided at one side with diagonally curved concentric slots, the front lower slot registering with a transverse recess formed in the bottom of the head, and the upper end of the rear slot registering with a transverse recess formed in the under side of the top of the head, a centrally pivoted plate arranged upon the draw-head and having laterally disposed tines passing through the slots and adapted to take into the recesses, a crank-shaft arranged under the car and adapted to rock, and operating connections between the crank-shaft and the plate for causing an oscillation of the latter when the shaft is oscillated, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JAMES W. RAMSEY.

Witnesses:

ISAAC A. HALL,

WM. N. BUTLER.