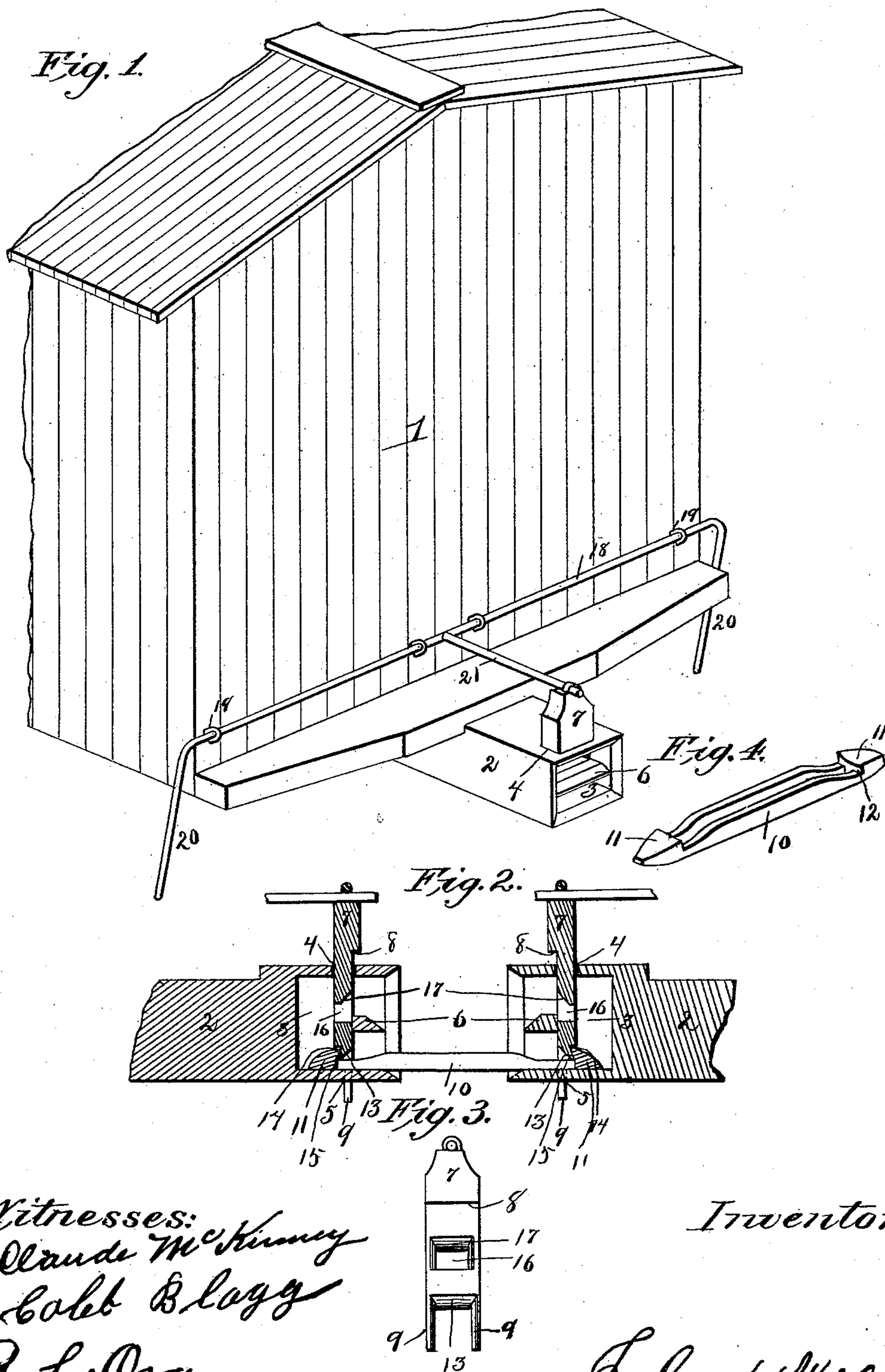


(No Model.)

J. H. WILSON.
CAR COUPLING.

No. 472,418.

Patented Apr. 5, 1892.



Witnesses:
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UNITED STATES PATENT OFFICE.

JOHN H. WILSON, OF CARMI, ILLINOIS.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 472,418, dated April 5, 1892.

Application filed December 26, 1890. Renewed February 1, 1892. Serial No. 419,989. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. WILSON, a citizen of the United States, residing at Carmi, in the county of White, State of Illinois, have
5 invented a certain new and useful Device or Invention for Coupling Railroad-Cars Automatically; and I do hereby declare that the following is a full and exact description of the invention.

10 My invention consists in a new and improved automatic car-coupler which will couple the cars together and enable them to be uncoupled without going between them and which is so constructed that cars having
15 draw-heads located at different heights can be readily coupled together; and the invention will be hereinafter described and claimed.

Referring to the accompanying drawings, Figure 1 is a perspective view of the end of a
20 car which is provided with my invention. Fig. 2 is a longitudinal central vertical sectional view through two draw-heads which are constructed according to my invention. Fig. 3 illustrates in detail the coupling pin or bar,
25 and Fig. 4 illustrates in detail the coupling-link.

Referring to the several parts by their designating-numerals, 1 indicates the end of the car shown in Fig. 1, to which my invention is
30 shown applied.

2 indicates the draw-head, which is secured beneath the end of the car in the usual manner and which is formed with the main opening 3. In the top of the draw-head is formed
35 transversely a rectangular slot 4, and in the bottom of the draw-head in line with the slot 4 are formed the two round openings 5 5. The mouth of the draw-head is divided by a transverse bar or partition 6, or two or more of
40 these transverse bars may be employed, if desired, according to the size of the draw-head.

Through the transverse slot 4 in the top of the draw-head fits and slides the locking-bar 7, which takes the place of the usual coupling-pin, the body of this bar being rectangular in cross-section to adapt it to fit in the
45 slot 4, and it is formed at a suitable distance from its upper end with a shoulder 8, which limits its downward play by coming in contact with the top of the draw-head. The locking-bar 7 passes down immediately behind
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the fixed division-bar 6 and is formed at its lower end with the two round pins 9 9, which project down parallel to each other and pass through openings 5 in the bottom of the draw-head, thus serving to guide the lower end of the coupling-bar as the latter moves up and down.

10 indicates the coupling-link, which is formed at each end with the locking-head 11, the top of the pin being reduced near each end to form the shoulder 12 at the inner end of each head 11. The lower end of the coupling-bar 7 between the guide-pins 9 9 is beveled on its forward side at 13 and is recessed at its rear side at 14 to form the inclined locking lip or projection 15, adapted to engage the inclined shoulders 12 of the link-heads. When the coupling-link is not in the draw-head, the weight of the coupling-bar 7 will cause it to slide down until its lower end comes in contact with the bottom of the draw-head. When two cars come together and the inclined end of the link enters the draw-head, sliding along the bottom of the same, it will come in contact with the inclined lower end 13 of the coupling-bar and will raise the same and slide under it until the shoulder of the link-head passes beyond the lower end of the bar 7, when the coupling-bar will drop by its own weight and its locking-point 15 will engage behind the inclined inner end of the link-head, as shown in the sectional view, Fig. 2 of the drawings. When a car having a higher draw-bar is to be coupled, the free end of the link will come in contact with the inclined outer edges of the fixed division-bar 6 and will slide in over the said bar. The coupling-bar is formed at about the center of its length with the transverse slot 16, and the bar at the upper side of this slot is curved or inclined, as shown at 17. When the free end of the coupling-link passes over the fixed division-bar 6, its beveled end, coming in contact with the beveled surface 17, will raise the coupling-bar so that the head of the link can pass through the slot 16, when the bar falls by its own weight and engages with the inner end of the link-head in the same manner that its lower end engages with the head of the link. It will be seen by this construction that my new and improved car-coupler will auto-
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atically couple the cars together, and thus do away with all necessity for the train-men going between the ends of the meeting cars; and it will be further seen that I provide
5 means whereby cars having draw-heads arranged at different heights can be readily coupled together.

To uncouple the cars without going between them I preferably employ the trans-
10 verse shaft 18, which is mounted in bearings 19 across the end of the car and is formed with the cranked end handles 20 20. From the center of this shaft an arm 21 projects out, the outer end of which is coupled or connected
15 to the upper end of the sliding coupling-bar 7. It will be seen that by raising the handle 20 at either end of the car the coupling-bar 7 will be raised, thus freeing the head of the link 10 and uncoupling the cars without
20 going between them. A suitable connection between the arm 21 and the top of the car can be readily made to enable the arm to be raised from the top as well as the sides of the car.

25 Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a car-coupler, the combination of the draw-head formed at its top with the transverse slot 4 and having the openings 5 5 formed
30 in its bottom, the sliding coupling-bar 7, formed at its lower end with the guide-pins 9 9 and formed between said guide-pins with the forward inclined surface 13 and the rear recess 14, forming the inclined locking-tongue
35 15, and the coupling-link 10, formed with the pointed end heads 11, having the inclined inner ends 12, substantially as set forth.

2. The combination, in a car-coupler, of the draw-head formed with the upper transverse
40 slot 4 and the bottom openings 5 5 and having the beveled division-bar 6 and the sliding coupling-bar 7 formed with the central opening 16 and the inclined surface 17 and formed at its lower end with the guide-pins 9
45 9, the forward inclined surface 13, the rear recess 14, and the inclined locking-tongue 15, and the coupling-link 10, formed with the pointed end heads having the inclined inner ends, substantially as set forth.

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Witnesses:

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