No. 819,527. PATENTED MAY 1, 1906.

G. W. DU BES.

FLAT CAR STANDARD.

APPLICATION FILED JAN. 13, 1906.

2 SHEETS—SHEET 1.

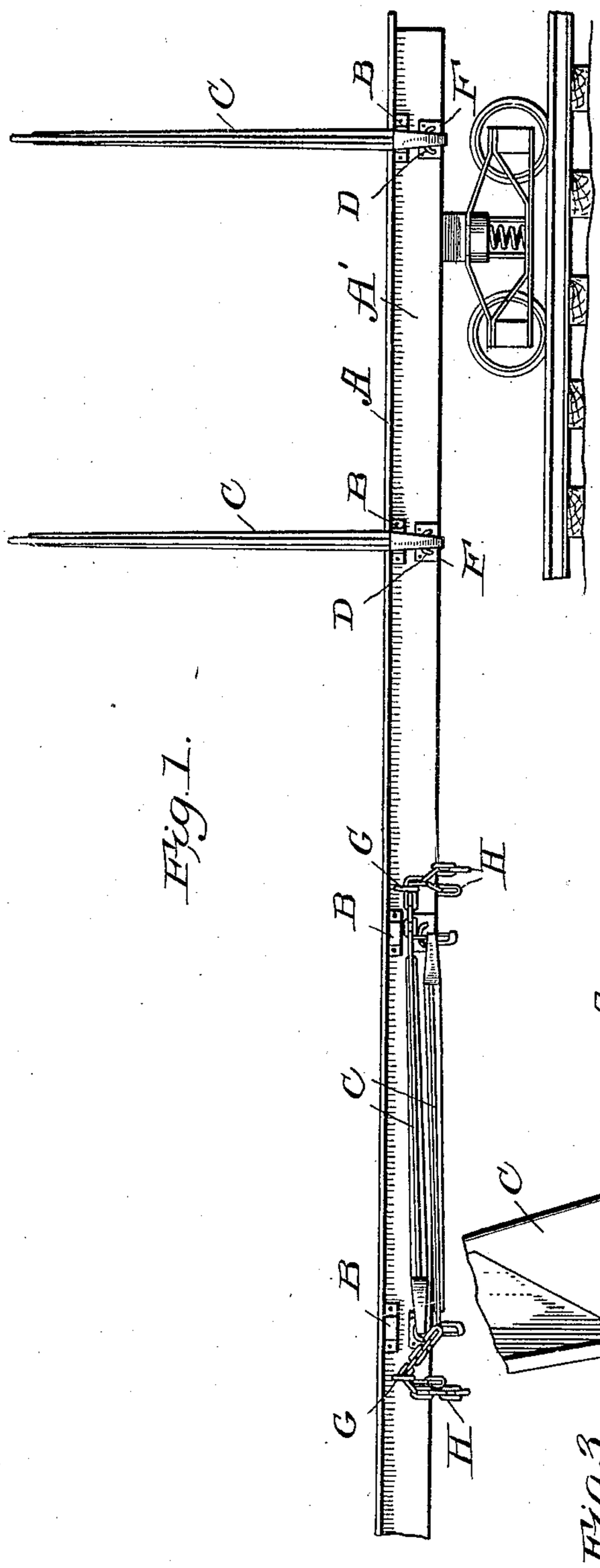

Fig. 1.

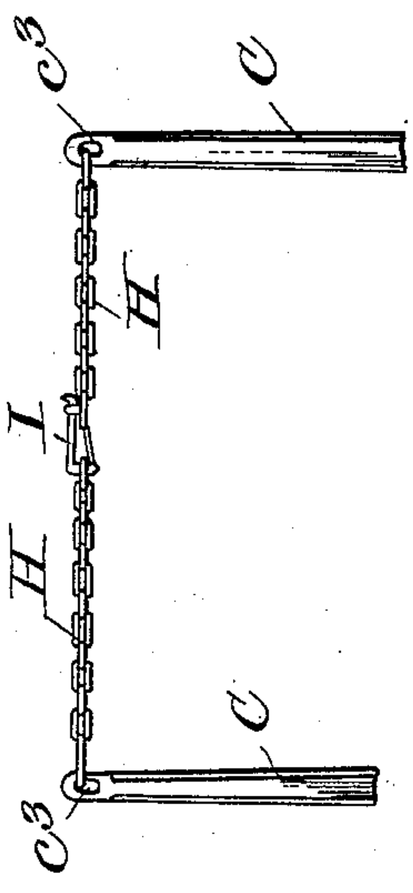

Fig. 2.

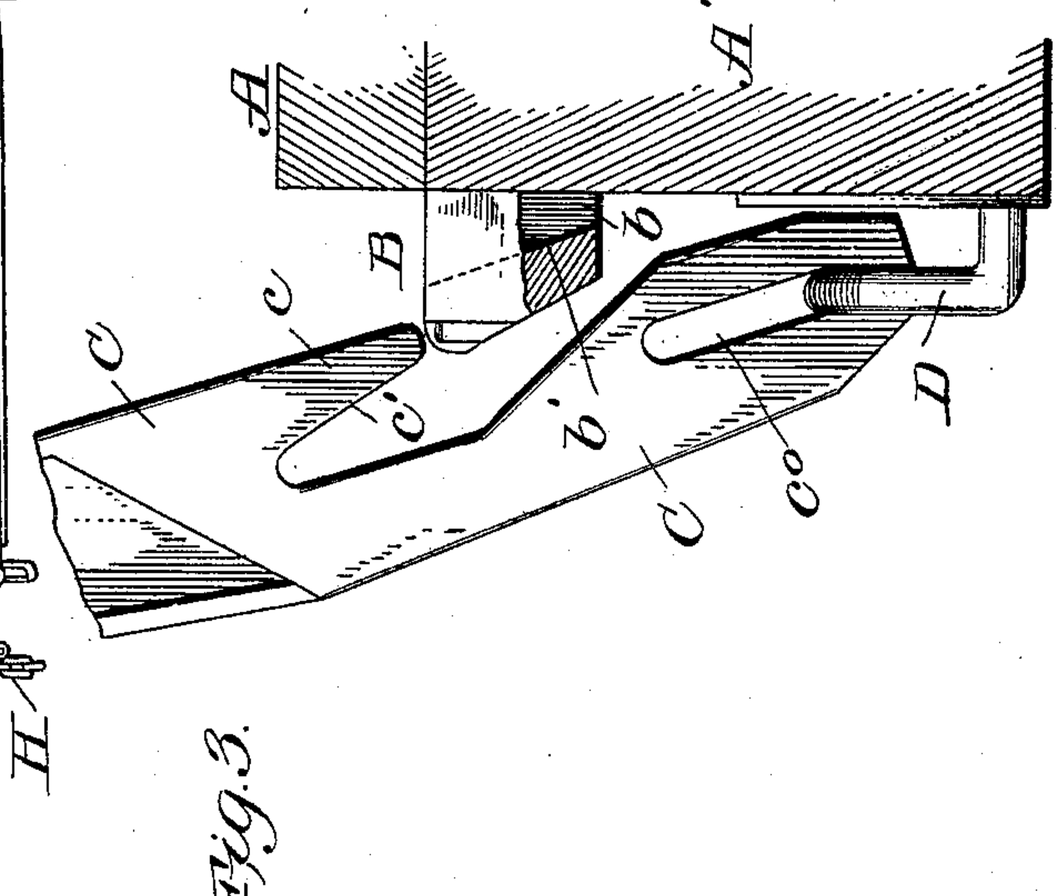

Fig. 3.

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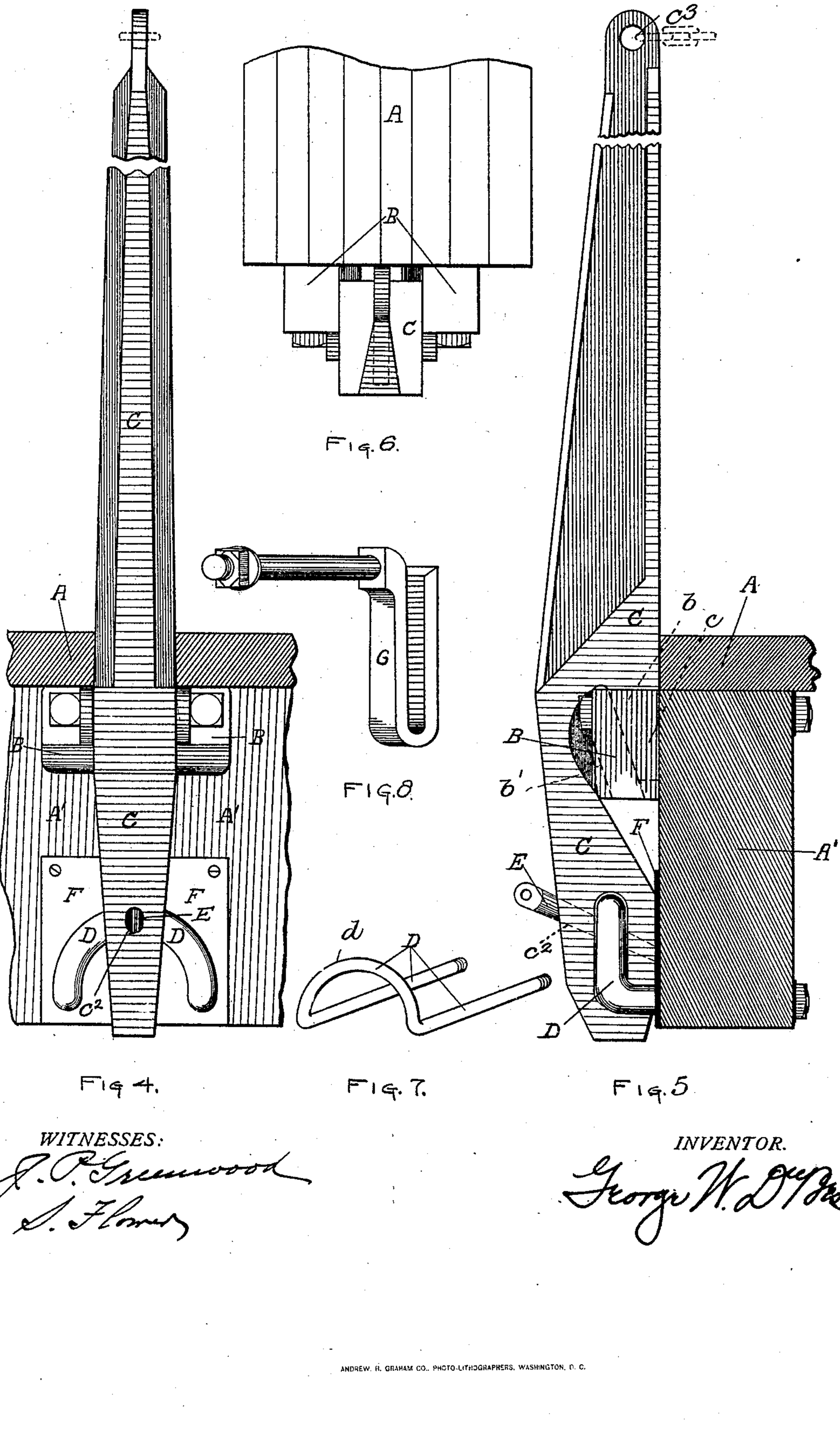

Fig. 4. Fig. 6. Fig. 8. Fig. 7. Fig. 5.

WITNESSES:

J. C. Greenwood

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UNITED STATES PATENT OFFICE.

GEORGE W. DU BES, OF NEW ORLEANS, LOUISIANA.

FLAT-CAR STANDARD.

No. 819,527. Specification of Letters Patent. Patented May 1, 1906.

Application filed January 13, 1906. Serial No. 295,951.

To all whom it may concern:

Be it known that I, GEORGE W. DU BES, a citizen of the United States, and a resident of New Orleans, in the parish of Orleans and State of Louisiana, have made certain new and useful Improvements in Flat-Car Standards, of which the following is a specification.

My invention relates to improvements in car-standards and supports therefor adapted to be used on flat railway-cars, lumber-wagons, or other vehicles where it is desired to retain a heavy load on the platform of the vehicle and where it is desired to quickly remove the standards for unloading the vehicle.

The main objects of my invention are to provide a strong standard which will stand rough usage, which may be readily removed with entire safety and great despatch, which when removed will fall out of the way of the load, and which will not strike the ground, but will be automatically supported clear of the ground at the side of the car.

My invention will be understood by reference to the accompanying drawings, in which the same parts are indicated by the same letters throughout the several views.

Figure 1 is a side elevation of a flat-car, showing two of the standards in the elevated and two in the lowered position. Fig. 2 shows the tops of two standards secured together by a chain. Fig. 3 is a detail showing the standard in the position assumed just before it is either swung into the engaging position or allowed to drop to the disengaged position. Fig. 4 is an end view of the standard in the raised position. Fig. 5 shows a section through the car-platform and sill and shows a side elevation of the standard in the raised or operative position. Fig. 6 is a plan view showing the standard and the bracket for supporting the same. Fig. 7 is a detail showing in perspective the U-bolt to which the heel of the standard is pivoted, and Fig. 8 shows a hook to engage the chain on the standard when the latter is in the lowered position and thus support the free end of the standard when it is in the lowered or inoperative position.

In the drawings, A represents the car-platform, mounted upon wheels A′ in the usual way.

B represents brackets, one for each standard, which brackets are provided with pockets *b*, having inclined rear walls *b*′ to engage the tongue *c* of the standard C. These pockets extend clear through the bracket, so that any water that falls into them may drain through and to facilitate the cleaning out of any snow or ice that may form in the pocket. This tongue has an inclined rear wall *c*′ to engage the wall *b*′ of the pocket for reasons that will be hereinafter stated. The standard C is provided with an elongated slot c^0 in its heel, into which projects the upwardly-curved portion *d* of the U-shaped bolt D, which is made fast to the sill A′, as shown most clearly in Fig. 5. A wear-plate F is provided to protect the sill against being worn by the heel of the standard. A pin E may be placed in the opening c^2 in the standard to prevent the latter from being accidentally raised out of the engaging position when it is not desired to have it raised; but in practice this pin may be omitted, as the weight of the standard and friction will keep it in place. This pin E may be chained to the car-sill, if desired, after the manner of a linchpin. The tops of the standards are perforated, as at c^3, to engage the chains H, which are connected together by any suitable detachable connection I. (See Fig. 2.) When the standards are lowered to the position shown to the left of Fig. 1, one of the links of these chains engages in the hook G, (shown in detail in Fig. 8,) and thus the free end of the standard is supported beneath the car-platform. This tends to steady the standard against lateral vibrations when the car is in motion.

The operation of the device is as follows: Suppose the standard is in the lowered position shown to the left of Fig. 1. Disengage the chain H, swing the standard up to the position shown in Fig. 3, and drop the tongue *c* into the pocket *b*. The slot c^0 will ride down the bolt D, and the standard will assume the position shown in Figs. 4 and 5. Then the chain H is secured to the chain of the opposite standard on the other side of the car, and the parts are in the position for retaining the load in place. To release the load from the car, the standards are lowered, as follows: Loosen the connection I between the chains H, raise the standard so that the tongue *c* will clear the pocket *b*, and then swing the standard outward, as shown in Fig. 3, allowing it to fall forward or backward relative to the side of the car. The shaft of the bolt D, which engages in the slot c^0, will prevent the head of the standard from swinging down far enough to strike the ground. The elon-

gated slot will prevent the standard from swinging out at right angles to the sill of the car, and to lower it it must be swung either to the right or left, as seen in Fig. 1.

It will be noted that the first part of the operation of lifting the standard will cause the inclined face c' of the tongue c to wedge upward and backward on the wedge-face b' of the pocket b, and thus the slightest motion upward of the standard will be accompanied by a corresponding motion outward, and this will at once relieve the friction of the load of the standard and will allow the same to be readily raised out of engagement with the pocket and swung to one side or the other out of the way of the load when it is being moved.

In the manufacture of the device the bracket B should be made of strong and tough metal, such as cast-steel or malleable iron, while the standard should also be made of strong and tough metal, preferably either malleable iron or cast-steel or pressed steel. It will thus be seen that I provide a simple and exceedingly-strong standard and support therefor which is not likely to get out of order in spite of the rough usage to which such devices are almost invariably subjected. Furthermore, the parts are simple in construction, readily applied to the car without any changes in the structure of the cars as they are now built, and can be readily removed for repairs either to the car or to the standard, when required.

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

1. An apparatus for maintaining and releasing loads on cars or other vehicles, comprising a series of standards provided with inclined tongues, and perforated heels, brackets secured to the vehicle-body and provided with inclined pockets adapted to receive said tongues, and U-shaped bolts secured to the vehicle-body and engaging in the perforations in the heels of said standards, substantially as described.

2. An apparatus for maintaining and releasing loads on cars or other vehicles, comprising a series of standards provided with inclined tongues, and perforated heels, brackets secured to the vehicle-body and provided with inclined pockets adapted to receive said tongues, and U-shaped bolts secured to the vehicle-body and engaging in the perforations in the heels of said standards, with means for securing together the oppositely-disposed standards on both sides of the vehicle, substantially as described.

3. An apparatus for maintaining and releasing loads on cars or other vehicles, comprising a series of standards provided with inclined tongues, and perforated heels, brackets secured to the vehicle-body and provided with inclined pockets adapted to receive said tongues, and U-shaped bolts secured to the vehicle-body and engaging in the perforations in the heels of said standards, chains connected to the heads of said standards, and means for securing said chains to similar chains on the standards on the opposite side of the vehicle, substantially as described.

4. An apparatus for maintaining and releasing loads on cars or other vehicles, comprising a series of standards provided with inclined tongues, and perforated heels, brackets secured to the vehicle-body and provided with inclined pockets adapted to receive said tongues, and U-shaped bolts secured to the vehicle-body and engaging in the perforations in the heels of said standards, chains connected to the heads of said standards, and means for securing said chains to similar chains on the standards in the opposite side of the vehicle, with hooks arranged at the side of the vehicle below the platform to engage said chains when the standards are in the lowered position, substantially as described.

5. An apparatus for maintaining and releasing loads on cars or other vehicles, comprising a series of metal standards provided with downwardly and inwardly inclined tongues, and perforated heels, metal brackets secured to the vehicle-body and provided with inclined pockets adapted to receive said tongues, and bolts secured to the vehicle-body and engaging in the perforations in the heels of said standards, substantially as described.

6. An apparatus for maintaining and releasing loads on cars or other vehicles, comprising a series of metal standards provided with downwardly and inwardly inclined tongues, and perforated heels, metal brackets secured to the vehicle-body and provided with inclined pockets adapted to receive said tongues, and U-shaped bolts curved upwardly in their center and secured to the vehicle-body and engaging in the perforations in the heels of said standards, substantially as described.

7. An apparatus for maintaining and releasing loads in cars or other vehicles, comprising a series of metal standards provided with downwardly and inwardly inclined tongues, and perforated heels, metal brackets secured to the vehicle-body and provided with inclined pockets adapted to receive said tongues, bolts secured to the vehicle-body and engaging in the perforations in the heels of said standards, chains connected to the heads of said standards, and means for securing said chains to similar chains on the standards on the opposite side of the vehicle, substantially as described.

8. An apparatus for maintaining and releasing loads on cars or other vehicles, comprising a series of standards provided with inclined tongues, and with heels having elon-

gated vertical slots therein, brackets secured to the vehicle-body and provided with inclined pockets adapted to receive said tongues, and bolts secured to the vehicle-body and engaging in the slots in the heels of said standards, substantially as described.

9. An apparatus for maintaining and releasing loads on cars or other vehicles, comprising a series of standards provided with inclined tongues, and with heels having elongated vertical slots therein, brackets secured to the vehicle-body and provided with inclined pockets adapted to receive said tongues, and U-shaped bolts curved upward at their center and secured to the vehicle-body and engaging in the slots in the heels of said standards, substantially as described.

10. An apparatus for maintaining and releasing loads on cars or other vehicles, comprising a series of standards provided with downwardly and inwardly inclined tongues, and with heels having elongated vertical slots therein, brackets secured to the vehicle-body and provided with inclined pockets adapted to receive said tongues, and U-shaped bolts curved upward at their center and secured to the vehicle-body and engaging in the slots in the heels of said standards, with means for securing together the standards on opposite sides of the vehicle, substantially as described.

11. An apparatus for maintaining and releasing loads on cars or other vehicles, comprising a series of standards provided with downwardly and inwardly inclined tongues, and perforated heels, brackets secured to the vehicle-body and provided with V-shaped pockets open at the bottom and adapted to receive said tongues, and U-shaped bolts curved upward at their center and secured to the vehicle-body and engaging in the perforations in the heels of said standards, chains connected to the heads of said standards, and means for securing said chains to similar chains on the standards on the opposite side of the vehicle, substantially as described.

12. In an apparatus for maintaining and releasing loads on cars or other vehicles, the combination of a metal standard provided with a downwardly and inwardly inclined tongue, and a perforated heel, of a metal bracket secured to the vehicle-body and provided with an inclined pocket adapted to receive said tongue, and a bolt secured to the vehicle-body and engaging in the perforation in said heel, substantially as described.

13. In an apparatus for maintaining and releasing loads on cars or other vehicles, the combination of a metal standard provided with a downwardly and inwardly inclined tongue, and a perforated heel, a metal bracket secured to the vehicle-body and provided with an inclined pocket adapted to receive said tongue, and a U-shaped bolt curved upwardly in its center and secured to the vehicle-body and engaging in the perforation in the heel of said standard, substantially as described.

14. In an apparatus for maintaining and releasing loads on cars or other vehicles, the combination of a metal standard provided with a downwardly and inwardly inclined tongue, and a perforated heel, a metal bracket secured to the vehicle-body and provided with an inclined pocket adapted to receive said tongue, and a bolt secured to the vehicle-body and engaging in the perforation in the heel of said standard, substantially as described.

15. In an apparatus for maintaining and releasing loads on cars or other vehicles, the combination of a metal standard provided with a holding-tongue located above the heel of said standard, a metal bracket secured to the vehicle-body and provided with a pocket adapted to receive said tongue, and a U-shaped bolt curved upwardly in its center and secured to the vehicle-body and engaging in the heel of said standard, substantially as described.

16. In an apparatus for maintaining and releasing loads on cars or other vehicles, the combination of a standard provided with a downwardly and inwardly inclined tongue, and with a heel having an elongated slot therein, a bracket secured to the vehicle-body and provided with an inclined pocket adapted to receive said tongue, and a bolt secured to the vehicle-body and engaging in the slot in the heel of said standard, substantially as described.

17. In an apparatus for maintaining and releasing loads on cars or other vehicles, the combination of a standard provided with a downwardly and inwardly inclined tongue, and with a heel having an elongated slot therein, a bracket secured to the vehicle-body and provided with an inclined pocket adapted to receive said tongue, and a U-shaped bolt curved upward at its center and secured to the vehicle-body and engaging in the slot in the heel of said standard, substantially as described.

18. In an apparatus for maintaining and releasing loads on cars or other vehicles, the combination of a standard provided with a downwardly and inwardly inclined tongue, and with a heel having an elongated slot therein, a bracket secured to the vehicle-body and provided with an inclined pocket adapted to receive said tongue, and a U-shaped bolt curved upward at its center and secured to the vehicle-body and engaging in the slot in the heel of said standard, with means for securing together the standards on opposite sides of the vehicle, substantially as described.

19. In an apparatus for maintaining and releasing loads on cars or other vehicles, the combination of a standard provided with a downwardly and inwardly inclined tongue,

and with a heel having an elongated slot therein, a bracket secured to the vehicle-body and provided with an inclined pocket adapted to receive said tongue, and a U-shaped bolt curved upward at its center and secured to the vehicle-body and engaging in the slot in the heel of said standard, a chain connected to the head of said standard, and means for securing said chain to a similar chain on the standard on the opposite side of the vehicle, substantially as described.

20. An apparatus for maintaining and releasing loads on cars or other vehicles, comprising a series of metal standards provided with holding-tongues, metal brackets secured to the vehicle-body and provided with pockets adapted to receive said tongues, and a U-shaped bolt curved upwardly in its center and secured to the vehicle-body and engaging the heel of the standard, substantially as described.

21. An apparatus for maintaining and releasing loads on cars or other vehicles, comprising a series of metal standards provided with holding-tongues, metal brackets secured to the vehicle-body and provided with pockets adapted to receive said tongues, and a U-shaped bolt curved upwardly in its center and secured to the vehicle-body and engaging the heel of the standard, a chain connected to the head of said standard, and means for securing said chain to a similar chain on the standard on the opposite side of the vehicle, substantially as described.

22. An apparatus for maintaining and releasing loads on cars or other vehicles, comprising a series of metal standards provided with holding-tongues, metal brackets secured to the vehicle-body and provided with pockets adapted to receive said tongues, and a U-shaped bolt curved upwardly in its center and secured to the vehicle-body and engaging the heel of the standard, with means located beneath the platform of the vehicle-body for supporting the head of the standard when in the lowered position, substantially as described.

23. In an apparatus for maintaining and releasing loads on cars or other vehicles, the combination with a bracket secured to the vehicle-body, and a standard pivotally connected to the vehicle-body, and means for connecting said standard and said bracket whereby the lifting of the standard effects the swinging outward of the upper portion of said standard, substantially as described.

24. In an apparatus for maintaining and releasing loads on cars or other vehicles, the combination of a metal standard provided with a holding-tongue located above the heel of said standard, a metal bracket secured to the vehicle-body and provided with a tapered pocket open at top and bottom and adapted to receive said tongue, and means secured to the vehicle-body and adapted to engage the heel of the standard for holding the same in all positions of the standard, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE W. DU BES.

Witnesses:

ANDREW NERO, Jr.,

J. P. GREENWOOD.