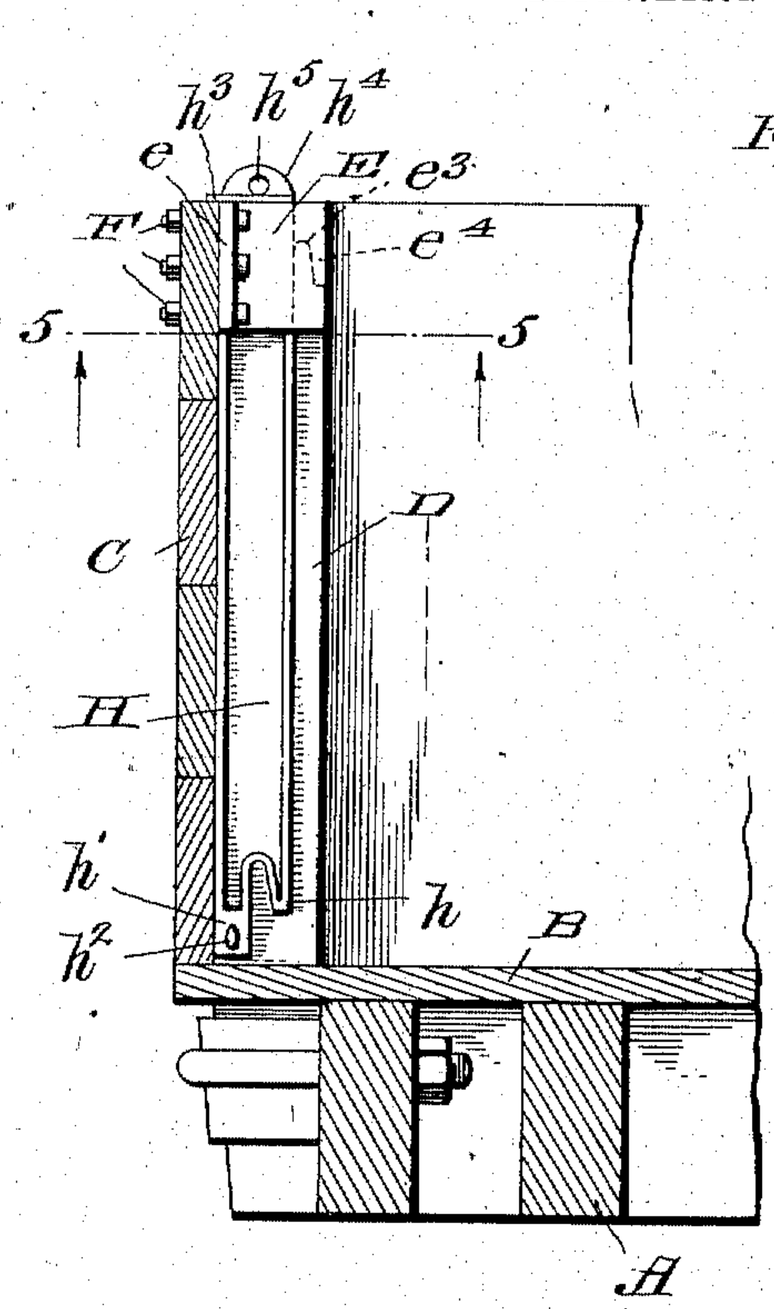
No. 835,302. PATENTED NOV. 6, 1906.

G. W. DU BES.

GONDOLA CAR STANDARD.

APPLICATION FILED JULY 19, 1906.

Fig. 1.



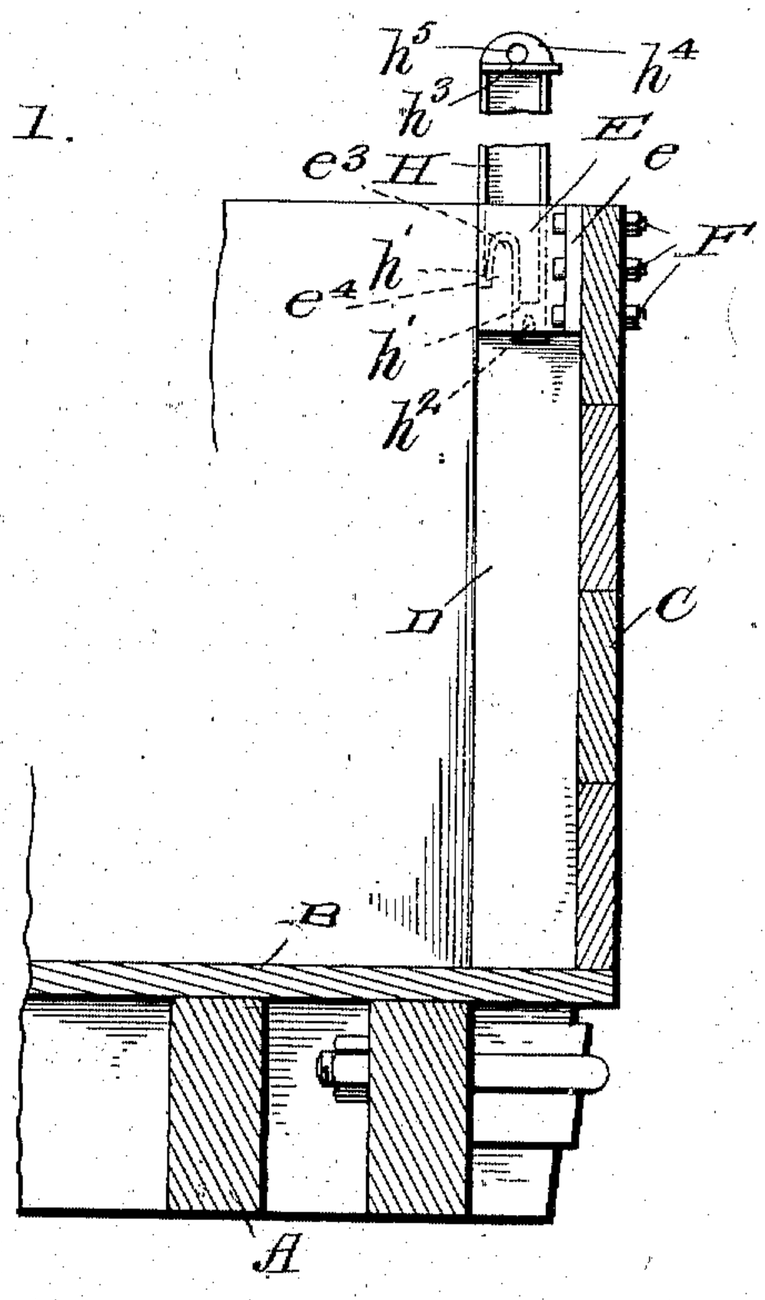


Fig. 2.

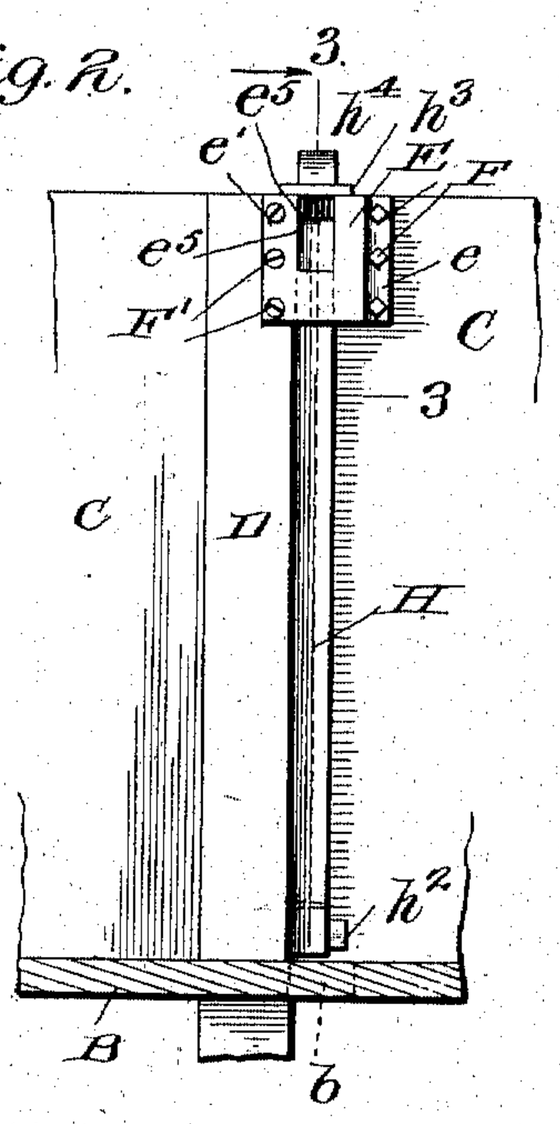


Fig. 4.

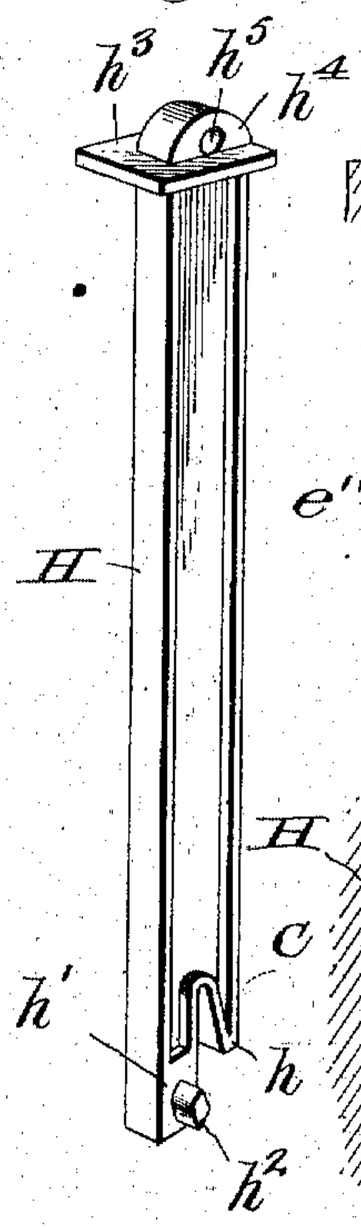


Fig. 3.

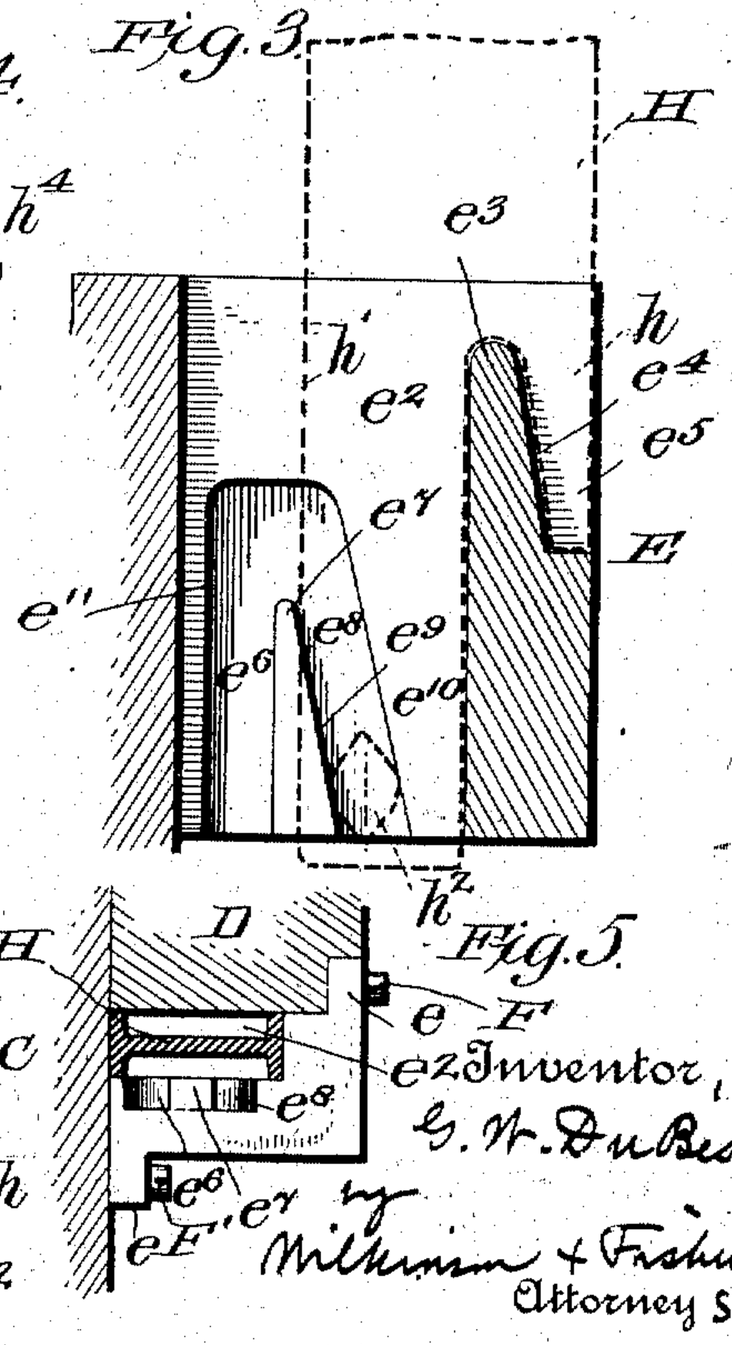


Fig. 5.

Witnesses
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UNITED STATES PATENT OFFICE.

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GONDOLA-CAR STANDARD.

No. 835,302. Specification of Letters Patent. Patented Nov. 6, 1906.

Application filed July 19, 1906. Serial No. 326,915.

To all whom it may concern:

Be it known that I, GEORGE W. DU BES, a citizen of the United States, residing at New Orleans, in the parish of Orleans and State of Louisiana, have invented certain new and useful Improvements in Gondola-Car Standards; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My present invention relates to improvements in car-standards, and is more especially intended to be used with gondola cars. These cars are normally provided with low sides and are adapted to carry heavy freights; and it is the object of my present invention to increase the height of the sides of these cars when desired without materially altering the construction of the car-body.

The main objects of my invention are to provide a strong standard capable of being used in the relation stated which will stand rough usage, which may be readily raised and lowered, and which when in the lowered position will be out of the way in loading or unloading 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 shows a cross-section through the body of a gondola car, parts being broken away, and shows one of the standards in the raised and the other in the lowered position on the inside of the car. Fig. 2 is a front view of the standard and the adjacent parts as seen from the interior of the car. Fig. 3 shows a section along the line 3 3 of Fig. 2 and looking in the direction of the arrows. Fig. 4 is a detail, being a perspective view of the standard as removed from the car. Fig. 5 shows a section along the line 5 5 of Fig. 1 and looking in the direction of the arrows.

A represents the bottom of the car-body, the truck beneath being omitted as forming no part of my present invention.

B represents the floor of the car, and C represents the side of the car. The floor and sides of the car may be of metal or any other suitable material, although they are shown of wood.

D D represent the ordinary lining-studs. So far as described the car is of the ordinary construction, and to equip it with my invention it will only be necessary to add the metal brackets E, with means for securing them to the car, and the standards H. These metal brackets E are provided with flanges e and e', adapted to be secured to the side of the car and to a lining-stud, respectively, by means of suitable bolts, such as F and F'. This bracket E is provided with a vertical slot e^2, (see Figs. 3 and 5,) separated by the tongue e^3 from the holding-groove e^5, the front of the tongue being made inclined inwardly toward the axis of the car, as shown at e^4.

In one wall of the slot e^2 (see Fig. 3) a bent groove is provided, consisting of the straight portion e^6 and the inclined portion e^8, separated from each other by the tongue e^7, whose inner face e^9 is substantially parallel with the inner face e^4 of the tongue e^3. The inner wall of the slot e^8 is also inclined, as at e^{10}.

The standard H may be of any suitable material; but I have shown it of pressed steel or malleable iron with ribbed edges to combine strength with lightness. This standard has an inclined tongue h at its inner lower corner and is provided with a heel-piece h', carrying the doubly-tapered lug h^2. The upper end of the standard is provided with a cap or shoulder piece h^3, and its head h^4 is preferably provided with an eye h^5, to which may be secured a chain, which chain may be used either for lifting the standard or for securing the said standard to the opposite standard, as fully described in my Patent No. 819,527, granted May 1, 1906, and entitled "Improvements in flat-car standards."

It will be noted from an inspection of Fig. 3 that if the top of the standard is secured to the top of an opposite standard, as by a taut chain, each standard will be firmly locked in its bracket E.

The operation of the device is as follows: When the standard is not in use, it is lowered to the position shown to the left in Fig. 1 and also shown in Fig. 2, at which time the shoulder h^3 rests on the top of the bracket E and the standard lies snugly along the side of the lining-stud D. Should it be desired to use a longer stud, it will be obvious that a hole may be cut in the bottom of the car at the part indicated by b in Fig. 2.

To raise the standard to the operative position, it is simply necessary to lift the same until the lug h^2 has passed into the groove e^6 and above the top of the tongue e^7, when if

the heel of the standard be pushed inward and then let go the tongue h on the heel of the standard will pass above the tongue e^3 and will slide down the inclined face e^4, while at the same time the lug h^2, having passed clear of the tongue e^7, will slide down the inclined face e^9. When the parts are in the position shown to the right in Fig. 1 and indicated in dotted lines in Fig. 3, the standard will be held against back pressure by the engagement of the tongue h with the inclined face e^4 and by the engagement of the lug h^2 with the inclined face e^{10}, while the standard will be held against fore-and-aft motion by its engagement in the groove e^2, as shown in Fig. 5. Thus it will be seen that the standard will be very firmly and rigidly held in place when in the raised position.

To release the standard, it will simply be necessary to lift the same, at the same time pushing the head back slightly. The inclined faces e^{10} and e^4 will then cause the standard to move slightly away from the load on the car and will permit the free lifting of the standard without any binding due to the friction with the load on the car. As soon as the standard is lifted far enough to clear the tongues e^3 and e^7 it is moved bodily backward until the lug h^2 strikes the rear wall e^{11} of the groove e^6, when the standard may be allowed to drop into the initial position. (Shown in Fig. 1.) In this position it will be screened by the projecting edge of the stud D, and its downward movement would not be affected by any ordinary goods on the car.

It will be seen that the lug h^2 will prevent the standard from being pulled entirely through the bracket E and will thus prevent the standard from being removed from the car.

It will be obvious that the standard when in its lowered position may be inclosed in a casing attached to the side of the car, if desired. It will also be obvious that while I have shown the standards as mounted on the inside of the car-body they might equally well be mounted on the outside of the car-body, if desired, the only change then necessary being merely a change in the disposition of the flanges on the bracket E, which change might be made by any ordinary mechanic. It will thus be seen that I provide a strong, simple, and durable car-standard and support therefor which are not likely to get out of order and which may be readily attached to cars already constructed without any needed changes in the design of the cars.

In the manufacture of the device the bracket E should be made of strong and tough metal, such as cast-steel or malleable iron, while the standard may be made of any suitable material, preferably pressed or cast steel or malleable iron.

It will be obvious that various modifications might be made in the herein-described apparatus which could be used without departing from the spirit of my invention.

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

1. The combination with a bracket secured to the side of the car and provided with a vertical slot therethrough and inclined grooves, of a standard adapted to slide through said vertical slot and having a tongue and a lug adapted to engage in said inclined grooves, substantially as described.

2. The combination with a bracket secured to the side of the car and provided with a vertical slot therethrough and inclined grooves, of a standard adapted to slide through said vertical slot and having a tongue and a lug adapted to engage in said inclined grooves, with means carried by the head of said standard for engaging said bracket when the standard is in the lowered position, substantially as described.

3. The combination with a bracket having a vertical slot therethrough, an inclined guide-groove at one side of said slot, and a recess separated from said vertical slot by an inclined tongue, of a standard adapted to slide in said vertical slot, and provided with a lug on one of its sides adapted to engage in said inclined groove, and also provided with an inclined tongue adapted to bear against the inclined tongue of said bracket and to engage in said recess, substantially as described.

4. The combination with a bracket having a vertical slot therethrough, an inclined guide-groove at one side of said slot, and a recess separated from said vertical slot by an inclined tongue, of a standard adapted to slide in said vertical slot, and provided with a lug on one of its sides adapted to engage in said inclined groove, and also provided with an inclined tongue adapted to bear against the inclined tongue of said bracket and to engage in said recess, with means carried by the head of said standard for engaging said bracket when the standard is in the lowered position, substantially as described.

5. 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 adapted to slide in said bracket, with means for connecting said standard and said bracket whereby the lifting of the standard effects the movement outward of the entire standard, substantially as described.

6. In an apparatus for maintaining and releasing loads on cars or other vehicles, the combination of a metal standard provided with a divided heel comprising a holding-tongue having an inclined face and a heel-piece provided with a laterally-projecting lug, and a metal bracket secured to the vehicle-body and provided with a slot to receive said standard, a tapered recess to re-

ceive said tongue, and an inclined guide-groove to engage said lug, substantially as described.

7. In an apparatus for maintaining and releasing loads on cars or other vehicles, the combination with a bracket secured to the vehicle-body, of a standard adapted to slide in said bracket, with a tongue and lug carried by said standard, and inclined grooves provided in the bracket and coacting with said tongue and lug, whereby the lifting of the standard effects the movement outward of the standard, substantially as described.

8. In an apparatus for maintaining and releasing loads on cars or other vehicles, the combination of a metal standard provided with a divided heel comprising a holding-tongue having an inclined face and a heel-piece provided with a laterally-projecting lug, and a metal bracket secured to the vehicle-body and provided with, a slot to receive said standard, a tapered recess to receive said tongue, and an inverted-V-shaped groove to engage said lug, substantially as described.

9. In an apparatus for maintaining and releasing loads on cars or other vehicles, the combination of a metal standard provided with a shouldered head, and with a divided heel comprising a holding-tongue having an inclined face and a heel-piece provided with a laterally-projecting lug, and a metal bracket secured to the vehicle-body and provided with, a vertical slot to receive said standard, a tapered recess to receive said tongue, and an inclined guide-groove to engage said lug, substantially as described.

10. The combination with a car-body provided with vertical studs, of a bracket secured to the side of the car at the side of one of these studs, and provided with a vertical slot therethrough next the stud and with inclined grooves, of a standard adapted to slide through said vertical slot and having a tongue and a lug adapted to engage in said inclined grooves, substantially as described.

11. The combination with a car-body provided with vertical studs, of a bracket secured to the side of the car at the side of one of these studs, and provided with a vertical slot therethrough next the stud and with inclined grooves, of a standard adapted to slide through said vertical slot and having a tongue and a lug adapted to engage in said inclined grooves, with a cap-piece carried by the head of said standard for engaging said bracket when the standard is in the lowered position, substantially as described.

12. The combination with a car-body provided with vertical studs, of a bracket secured to the side of the car at the side of one of these studs, and provided with a vertical slot therethrough next the stud and with an inclined guide-groove at one side of said slot, and with a recess separated from said vertical slot and inclined tongue, of a standard adapted to slide in said vertical slot and close to said stud, and provided with a lug on the side away from said stud adapted to engage in said inclined groove, and also provided with an inclined tongue adapted to bear against the inclined tongue of said bracket and to engage in said recess, substantially as described.

13. The combination with a car-body provided with vertical studs, of a bracket secured to the side of the car at the side of one of these studs, and provided with a vertical slot therethrough next the stud and with an inclined guide-groove at one side of said slot, and a recess separated from said vertical slot and inclined tongue, of a standard adapted to slide in said vertical slot and close to said stud and provided with a lug on the side away from said stud adapted to engage in said inclined groove, and also provided with an inclined tongue adapted to bear against the inclined tongue of said bracket and to engage in said recess, with a cap-piece carried by the head of said standard for engaging said bracket when the standard is in the lowered position, substantially as described.

14. The combination with a bracket secured to the side of the car and provided with a vertical slot therethrough, an inclined recess, and an inverted-V-shaped inclined groove, of a standard adapted to slide through said vertical slot and having a tongue adapted to engage in said recess and a lug adapted to engage in said groove, substantially as described.

15. The combination with a bracket secured to the side of the car and provided with a vertical slot therethrough, an inclined recess, and an inverted-V-shaped inclined groove, of a standard adapted to slide through said vertical slot and having a tongue adapted to engage in said recess and a lug adapted to engage in said groove, said standard also having a shouldered head engaging said bracket when the standard is in the lowered position, substantially as described.

16. The combination with a bracket having a vertical slot therethrough, an inverted-V-shaped guide-groove at one side of said slot, and a recess separated from said vertical slot by an inclined tongue, of a standard adapted to slide in said vertical slot, and provided with a lug on one of its sides adapted to engage in said inclined groove, and also provided with an inclined tongue adapted to bear against the inclined tongue of said bracket and to engage in said recess, substantially as described.

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

GEORGE W. DU BES.

Witnesses:
JNO. J. WARD,
ANDREW HOW.