UNITED STATES PATENT OFFICE.

ESTIL J. HUFFMAN, OF CHICAGO, ILLINOIS, ASSIGNOR TO SEARS, ROEBUCK AND COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF NEW YORK.

FOLDING STANDARD FOR VEHICLES.

1,203,622.


Application filed April 7, 1916. Serial No. 89,522.

To all whom it may concern:

Be it known that I, Estil J. Huffman, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Folding Standards for Vehicles, of which the following is a specification.

The object of this invention is to provide a folding standard for trucks, wagons and other vehicles which shall be of strong, simple and inexpensive construction.

In the accompanying drawings, Figure 1 is a view of the rear end of the platform or bed of a vehicle provided with standards embodying the features of my invention. Fig. 2 is a top plan view of the support for the standard, proper, at the left-hand side of the vehicle. Fig. 3 is a vertical sectional view through the support and the standard taken in the plane of dotted line 3—3 of Fig. 2. Fig. 4 is a section of the support and standard only on line 4—4 of Fig. 2. Fig. 5 is a view similar to that of Fig. 4, but showing the support and standard at the opposite side of the bed. Fig. 6 is a view of a modified form of the supports at both sides of the wagon bed, the standards lying in the same horizontal plane when folded. Fig. 7 is a sectional view along the line 7—7 (Fig. 9) of a modification of the invention, showing the standards in the same vertical plane when folded. Fig. 8 is a view similar to Fig. 7, but showing another modification, the standards when folded lying in the same horizontal plane. Fig. 9 is a plan view of the left-hand support and standard shown in Figs. 7 and 8. Fig. 10 is a sectional view showing a modification of the construction shown in Figs. 7 and 8.

As will be understood, the bed or platform to which the standards are to be applied may be of any suitable form and construction. Herein is shown a bed A having side sills A' and an end sill A". In the construction herein illustrated, the standards are located at the rear corners of the bed A, but it will be understood that they may be located at other points. For each standard there is provided a support. These supports are or may be identical in character, the parts being simply reversed to make one of the supports "right-hand" and the other "left-hand." In Figs. 1 to 5, the right-hand support is indicated at 1 and the left-hand support at 2. As both are essentially similar, a description of one will be sufficient.

The support 2 comprises means whereby the support may be securely attached to the bed A, the means herein shown for that purpose comprising flanges 3 to overlie and underlie the end-sill A", and flanges 4 to lie at opposite sides of the side-sill A'. An opening 5 extends vertically through the support. Communicating with the opening 5 is a slot 6 which extends toward the longitudinal center line of the bed A, or, in other words, toward the opposite support 1. 7 is the lower end wall of the slot 6. The upper end of the slot 6 is open.

The standard proper may be of any suitable construction. Herein it is shown as consisting of a bar 8 adapted to stand upright within the opening 5. In the lower end of the standard 8 is an elongated opening 9 extending longitudinally of the standard and adapted to receive a pin 10 extending transversely of the opening 5. As shown in Fig. 3, the pin 10 may be a bolt passing through registering openings 11 in the support 2.

When the standard 8 is placed in upright position in the opening 5, the standard is held in that position by the pin 10 and the walls of the opening 5. When it is desired to fold the standard into inoperative position, the standard is lifted until the lower end wall of the elongated opening 9 is in contact with the pin 10, whereupon the standard may be swung toward the opposite side of the bed, the standard coming to rest in contact with the wall 7, as shown in dotted lines in Fig. 4. To place the standard in operative position it is swung upwardly until it drops as far as permitted by the length of the elongated opening 9.

In the support 1, the pin 10a is located at such height that the standard 8a shall be able to swing into horizontal position overlapping the standard 8, as indicated in dotted lines in Fig. 5. The opening 9a is correspondingly elongated.

A modification of either support 1 or 2 as shown in Fig. 6 permits both standards to lie in the same horizontal plane when folded to the inoperative position. The pin 20a is located at the same height as pin 20 and the
opening in the standard 18° is identical with the opening in the standard 18. The standards are identical and therefore interchangeable.

A further modification of the invention is shown in Figs. 7, 8, 9 and 10. In this embodiment of the invention the pin-and-slot connection is reversed from that shown in Figs. 1 to 6. The standard in this modification carries the pin, and the support is slotted. The support has the usual gripping flanges 23 and 24 for the wagon bed, and the rectangular opening 25 and communicating slot 26 for the standard 28. The support instead of having a bolt pass through the opening 25 has a retaining slot 29 in a wall thereof, or, preferably, two retaining slots located at opposite sides of said opening and extending above and below the bottom of the communicating slot 26. These retaining slots preferably extend but part way through the side walls. The standard is similar to the one previously described except that instead of a slot, the standard carries a pin. Preferably the pin extends through the standard and provides projecting lugs 27 on each side thereof. These lugs or pins travel in the retaining slots 29. The standard is held in an upright or in a horizontal position by means of the pins, slots and abutting walls as previously described.

Fig. 7 shows the modification of the support necessary when the folded standards are to lie in the same vertical plane and when the reversed construction is used. Fig. 8 is a sectional view of the same construction with the folded standards in a horizontal plane.

To readily insert and withdraw the standard from the support when the pin is in the former, the support or standard or both must be additionally modified. Two of the many methods possible are herein described.

Fig. 9 illustrates the two-part support shown in Figs. 7 and 8. The parting in Fig. 9 may be anywhere through the opening 25, but is preferably made as shown along line 5—8. The parts are united by any suitable means, as by bolts passing through the registering holes 30 in the bearing lugs 31.

Fig. 10 illustrates a one-piece support accomplishing the same purpose. The support in this case has an additional diagonal slot 32 in both side walls of the communicating slot. The gripping flanges 33 and 34, the opening 33, the slot 36, the pin 37, the standard 38 and the retaining slot 39 are the same as shown in Figs. 7, 8 and 9. Each diagonal slot 32 intersects the retaining slot 39 in the corresponding opening wall preferably about midway between the extremities of said retaining slot. In this manner the pin will remain at either extremity of the retaining slot and will not jolt or be jostled out therefrom as would be the case if the slots were continuations of each other. The standard will then remain in the support unless purposely withdrawn by way of the diagonal slot.

I claim as my invention:

1. The combination of a vehicle standard support adapted to be attached to a vehicle, said support having an opening therein, a slot communicating with said opening, a retaining slot in a wall of said opening, and an open diagonal slot intersecting said retaining slot, a standard, and a pin carried by said standard, said pin engaging with said slots to hold said standard within said opening or said communicating slot or to release and withdraw said standard from said support.

2. The combination of a vehicle standard having a pin near one end, and fixed parts surrounding said standard, a retaining slot for said pin, an open slot in one of said fixed parts intersecting said retaining slot, said intersecting slot coacting with said pin to insert into or withdraw from said fixed parts said standard.

3. The combination of a vehicle standard, fixed parts surrounding said standard, and a pin and slot connection coacting with said fixed parts to insert into or withdraw from said fixed parts said standard.

4. The combination of a standard support adapted to be attached to a vehicle, said support having a rectangular opening therein, a slot at right angles to said opening and communicating with the same, and a straight retaining slot in a wall of said opening, a standard, and a pin near one end of said standard adapted to be engaged by said retaining slot, said standard being adapted to occupy said opening when in an upright position and said communicating slot when in a horizontal position.

5. The combination of a support adapted to be attached to a vehicle, said support having an opening therein, a slot communicating with the opening and a straight retaining slot in a wall of said opening, a standard, and a pin near one end of said standard adapted to be engaged by said retaining slot, said standard being adapted to occupy said opening and said communicating slot.

6. A vehicle standard support having an opening therein and a slot at right angles and communicating with said opening, a vehicle standard, and a single pin near the end of said standard cooperating with the walls of said opening and said communicating slot to support the standard in a vertical or horizontal position.

7. A folding vehicle standard comprising a base adapted to be attached to a vehicle, a standard, one of said parts having a
straight slot and the other part having a single pin entering said slot to provide a vertically slidable connection between the standard and the support, said support having a vertical opening into which the lower end of said standard is adapted to snugly fit, the standard when in vertical position dropping by gravity as far as permitted by said pin-and-slot so that the extreme lower end of the standard is confined in the lower end of said opening to maintain the standard in vertical position, the pin-and-slot connection allowing the standard to be raised to remove the extreme lower end of the standard from such confining relation and permit the standard to be swung down into horizontal position, the support having a vertical slot open at its upper end and leading laterally from said opening, which latter slot receives the standard when folded down.

8. A vehicle standard support having a vertical opening therethrough and a horizontal slot therein, said slot communicating with said opening and a standard having a pin-and-slot connection with said support and adapted to occupy said opening and said communicating slot, said pin-and-slot connection comprising a single pin and an elongated straight slot and being adapted to limit the descent of the standard into said opening when the latter is confined in upright position and to maintain said standard in horizontal position when said standard occupies said slot.

In testimony whereof, I hereunto set my hand.

ESTIL J. HUFFMAN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D.C."