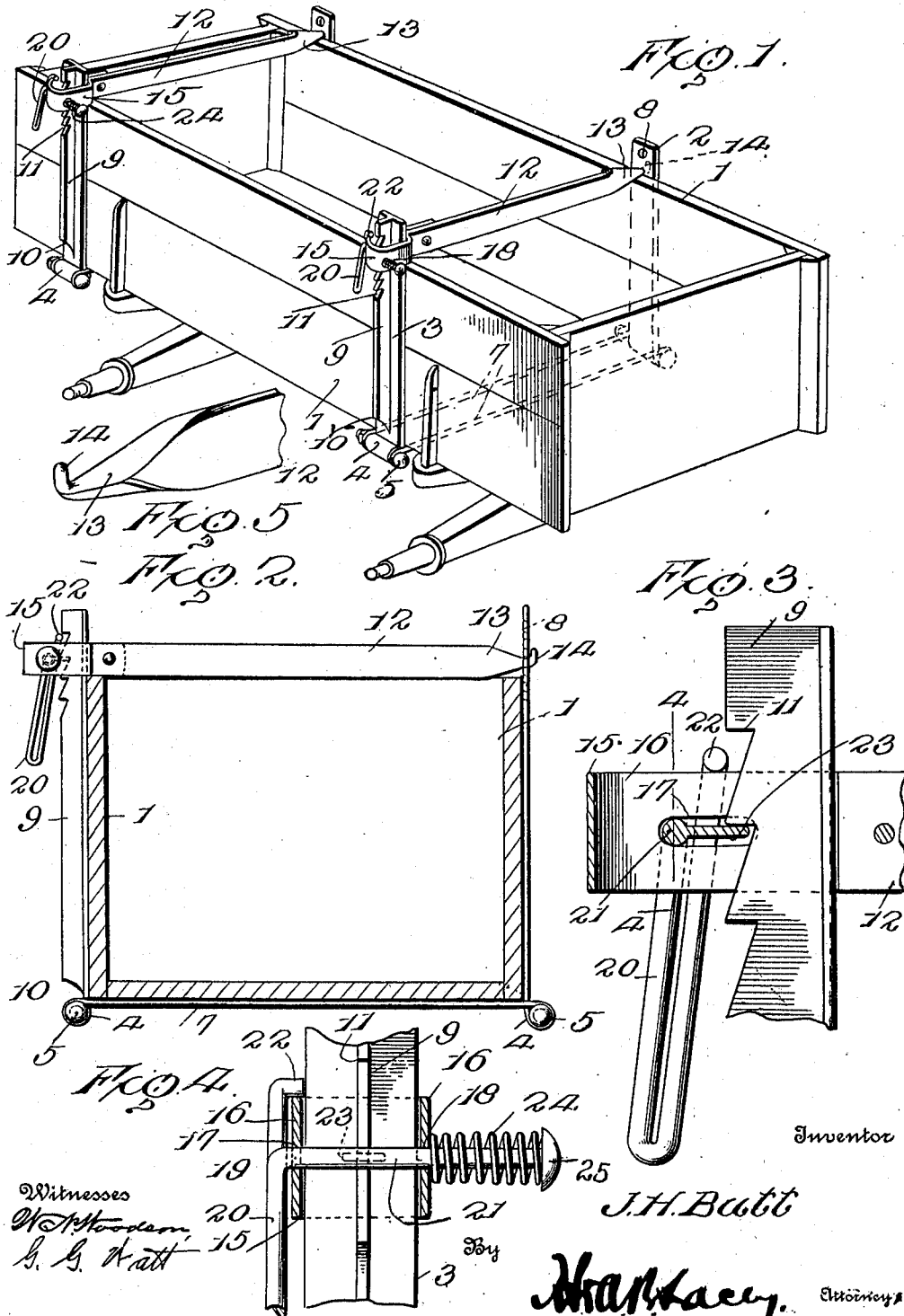


J. H. BUTT.
WAGON BOX BRACE.
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974,469.

Patented Nov. 1, 1910.



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JOHN H. BUTT, OF MOHALL, NORTH DAKOTA.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOHN H. BUTT, citizen of the United States, residing at Mohall, in the county of Ward and State of North Dakota, have invented certain new and useful Improvements in Wagon-Box Braces, of which the following is a specification.

This invention relates to certain new and useful improvements in braces especially adapted for wagon boxes or the like and has for its object to provide a device of this character which will support the sides of the box throughout the width of the same, which can be easily and quickly applied and which will be capable of being easily locked in adjusted position.

A further object of this invention is to provide a brace composed of as few parts as possible capable of performing the function designed, which may be cheaply manufactured and assembled, which will be simple in construction, and which will be efficient in operation.

A still further object of this invention is to provide a brace capable of being adjusted to fit wagon boxes of varying heights or so that the braces may be positioned accordingly as may be desirable on any particular box on which the braces may be used.

With these and other objects in view as will more fully appear as the description proceeds the invention consists in certain constructions, arrangements and combinations of the parts that I shall hereinafter fully describe and claim.

For a full understanding of the invention, reference is to be had to the following description and accompanying drawings, in which:—

Figure 1 is a perspective view showing my improved brace applied; Fig. 2 is an end view thereof, the wagon box being shown in section; Fig. 3 is a detail view partly broken away showing the locking key and rack; Fig. 4 is a section view taken on the line 4—4 of Fig. 3; and, Fig. 5 is a detail perspective view of one end of the connecting bar.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

Referring more particularly to the drawing, the numeral 1 designates the sides of a wagon box. As shown, my improved brace is designed to extend entirely around the

box being capable of being positioned throughout the length of the same at any point desired.

The numerals 2 and 3 designate oppositely spaced uprights which are adapted to extend vertically along the sides of the box, and are coiled at their lower extremities as at 4 to receive a bolt or other suitable pin 5. A bail is provided to connect the lower ends of the uprights and said bail is preferably composed of two lengths 7 of rod iron extending parallel to each other and coiled at their extremities around the bolts 5 between the outer edges of said uprights and the ends of the bolts. It will, of course, be understood that said bail is designed to extend underneath the bed of the wagon box serving to hold the lower ends of the uprights 2 and 3 firmly against the sides 1.

The upright 2 is preferably constructed of a flat piece of sheet metal of the proper width and thickness to give the strength desired and is provided near its upper end with a series of longitudinally spaced apertures 8, the purpose of which will presently appear.

The upright 3 preferably comprises a T bar, the web 9 of which is longitudinally recessed near its lower end, as at 10 so as to permit the lower extremity of the upright to be coiled around the bolt or pin 5. When in operation, the flat side of the T bar will, of course, be presented to the wagon box and this will cause the web 9 to project outwardly. Near the upper end of the upright, said web is provided with a longitudinally extending rack 11 corresponding to the apertures 8 in the oppositely spaced upright.

For securing the upper ends of the uprights 2 and 3 together, a connecting bar 12 is employed. Said bar is preferably constructed of a single piece of sheet metal having its edges bent inwardly near one end as best shown in Fig. 5, and overlapped to form a shank 13, the extremity of said shank being turned angularly and terminating in a hook 14. The bar 12 is coiled upon itself near its opposite end to form a loop 15, the extremity of said bar being returned and riveted or otherwise secured to the body portion thereof. Said loop should be of a length and width to readily receive the upright 3 and preferably the bar should be turned at right angles in forming the loop so as to make the same substantially rectangular.

The loop 15 is provided near its outer end

and about midway the sides 16 thereof, with a longitudinally extending slot 17 and an oppositely spaced aperture 18. Mounted therein is a spring pressed key 19 which extends transversely of the bar 12. The key 19 is preferably formed of a single piece of metal bent at approximately right angles at a point intermediate of its ends, the metal being then returned to overlap such bent portion to form a transversely disposed handle 20, the extremity of the handle end of the metal extending beyond the stem 21 of the key and being bent inwardly at its end to form the stop 22. Said key has also formed on the stem 21 thereof near the handle end, a lug 23 which extends transversely to said handle. This key 19 above described is designed to be mounted in the loop by inserting the same through the side provided with the slot, it being noted that the slot 17 is of a sufficient length to receive the lug 23 on the stem of the key. It should also be noted that said lug 23 is spaced on the stem 21 a proper distance from the handle so that as said handle rests against the outer side of the loop 15, the lug will be positioned about midway between the sides of said loop. A coil spring 24 is carried by the stem, being positioned between one side of the loop 15 and the head 25 provided at the extremity of said stem. It will thus be clear that in normal position, the action of the spring will serve to hold the handle 20 of the key 19 against the side of the loop and the stop 22 will be caused to extend over the upper edge thereof.

In operation the uprights 2 and 3 are first placed in position against the sides of the wagon box, as shown in Fig. 1 with the bail extending underneath the same. The hook 14 of the connecting bar is then inserted into one of the apertures in the upright 2, whichever one is nearest the top of the box, and the loop in the opposite end of the bar is then brought down over the opposite upright 3. At this point the handle 20 of the key 19 should be pulled outwardly against the tension of the spring 24 far enough so that the lug 23 will clear the center of the interior of the loop 15 allowing the web 9 of the upright 3 to pass. The bar 12 should then be forced down upon the upright 3 as far as possible when the handle 20 should be released thereby causing the lug 23 of the key to engage the rack 11 of the upright. As the height of the wagon box is varied, the connecting bar 12 may be positioned in the different apertures provided in the upright 2, the longitudinally extending rack in the opposite upright serving a like purpose.

It should be particularly noted that when so engaged the key is at the same time locked in position. The handle of the key cannot swing toward the wagon box a sufficient dis-

tance to disengage the lug 23 and the opposite movement of said handle is prevented by the stop 22 which will engage the side of the loop 15. In this way I provide a positive locking means.

It will therefore be seen that I have devised a very desirable construction for the purpose herein set forth, having provided a device which may be easily operated and which will so brace the sides of a wagon box or the like as to make the same virtually rigid.

Having thus described the invention, what is claimed as new is:—

1. A device of the character described comprising oppositely disposed uprights coiled at their lower extremities to receive a pin, one of said uprights being formed with an outwardly projecting web longitudinally recessed near the lower end of said upright, a bail comprising two lengths of oppositely spaced wire extending parallel and coiled at their extremities around said pins for pivotally connecting the lower ends of said uprights, a connecting bar, the ends of which are adapted to engage the uprights near their upper ends, and means for locking said bar in position.

2. A device of the character described comprising oppositely spaced uprights, one of said uprights being provided near its upper end with a series of longitudinally spaced apertures, a longitudinally extending rack provided near the upper end of the opposite upright, a bail pivotally connected at its ends with the lower ends of said uprights and a connecting bar adapted to engage at its ends said apertures and the rack.

3. A device of the character described comprising oppositely spaced uprights, a bail pivotally connected with the lower ends thereof, a connecting bar having its edges bent inwardly near one end and overlapped to form a shank, a loop provided at the extremity thereof for engagement with one of said uprights near its upper end and means carried by the opposite end of said connecting bar for engagement with the opposite upright near its upper end.

4. A device of the character described comprising oppositely spaced uprights, a bail pivotally connected with the lower ends thereof, a connecting bar adapted to engage said uprights near their upper ends and a hook formed on one extremity of said connecting bar for engagement with one upright.

5. A device of the character described comprising oppositely spaced uprights, a bail pivotally connected with the lower ends thereof, a connecting bar, one end thereof being adapted to engage one of said uprights near its upper end, the opposite end of said bar being provided with a loop, and means carried by said loop for engage-

ment with the opposite upright near its upper end.

6. A device of the character described comprising oppositely spaced uprights, a bail 5 pivotally connected with the lower ends thereof, a connecting bar, one end thereof being adapted to engage one of said uprights near its upper end and a spring pressed locking key carried by said connecting 10 bar near its opposite end for engagement with the opposite upright.

7. A device of the character described comprising oppositely spaced uprights, a bail forming a pivotal connection between 15 the lower ends thereof, a bar connecting the upper ends of the uprights, a locking key pivotally mounted in one end of said connecting bar, said key being formed of a single piece of wire bent angularly at a point intermediate of its ends and then returned to 20 overlap such bent portion to form a handle, the end of the wire extending beyond the stem of the key and bent inwardly to form a stop, a spring mounted on the stem, and a head formed at the extremity thereof for 25 holding said spring in operative position.

8. A device of the character described comprising oppositely spaced uprights, a bail forming a pivotal connection between 30 the lower ends thereof, a bar connecting the upper ends of the uprights, one end of said bar being provided with a loop, a spring pressed locking key carried by said loop, the sides thereof being formed with an oppositely disposed slot and aperture to receive 35 said key, and a stop formed on the extremity of the handle end of the key for engagement with the side of said loop.

9. A device of the character described comprising oppositely spaced uprights, a bail forming a pivotal connection between 40 the lower ends thereof, a bar connecting the upper ends of the uprights, a spring pressed locking key pivotally mounted in one end of said bar, a lug formed on said key, a rack 45 formed on one of the uprights for engagement with said lug, and a stop formed at the extremity of said key for holding the lug in operative engagement with said rack.

10. A device of the character described 50 comprising oppositely spaced uprights, a bail forming a pivotal connection between the lower ends thereof, a bar connecting the upper ends of the uprights, a loop formed at one end of said bar, a spring pressed locking 55 key pivotally mounted therein, and a stop formed on the extremity of the handle end of the key and adapted to engage the edge of one side of the loop for holding the key in operative engagement with one of 60 said uprights.

11. A device of the character described comprising oppositely spaced uprights, a bail forming a pivotal connection between 65 the lower ends of the uprights, a rack formed on one of said uprights, a bar connecting the upper ends of the uprights, and means carried by said connecting bar whereby to lock the same in operative engagement with said 70 rack.

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

JOHN H. BUTT. [L. S.]

Witnesses:

J. M. HYNES,
AL HESS.