

(No Model.)

2 Sheets—Sheet 1.

H. STEECK
WAGON.

No. 558,003.

Patented Apr. 7, 1896.

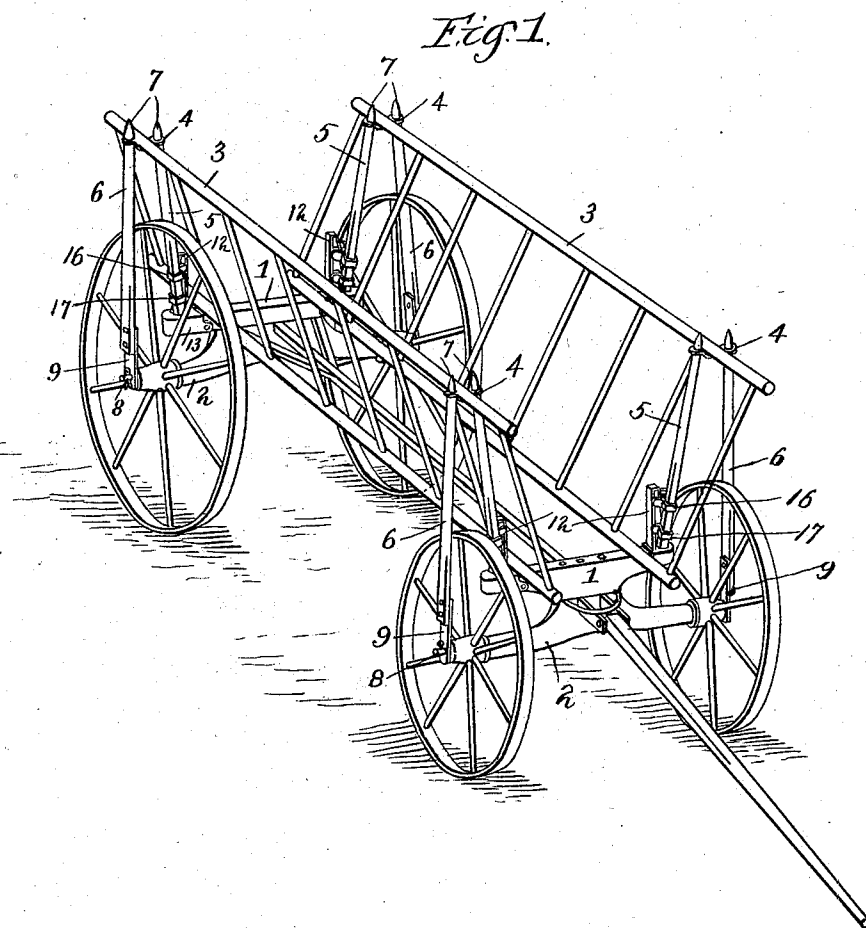


Fig. 6.

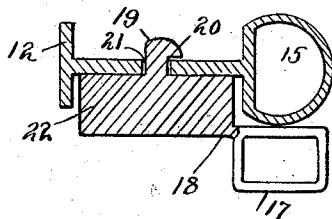
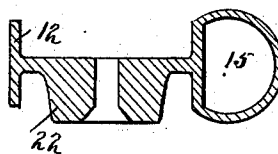


Fig. 7.



Witnesses.

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(No Model.)

H. STEECK.
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2 Sheets—Sheet 2.

No. 558,003.

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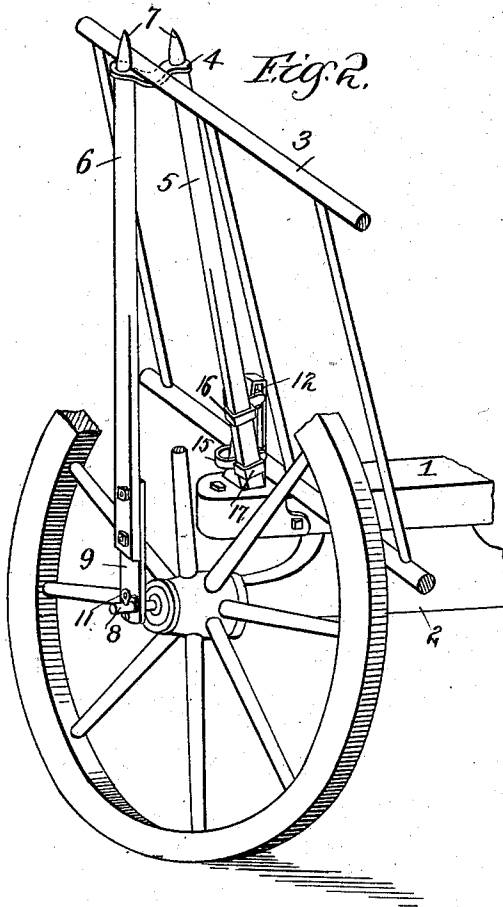


Fig. 3.

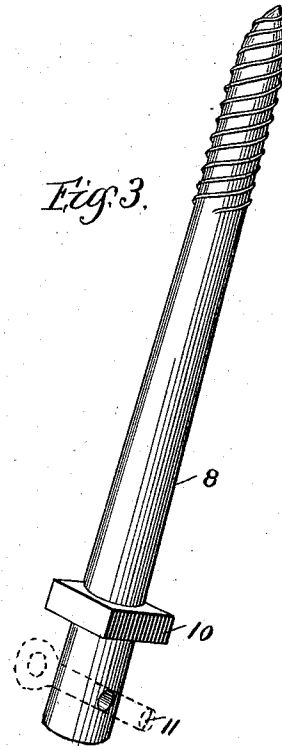


Fig. 4.

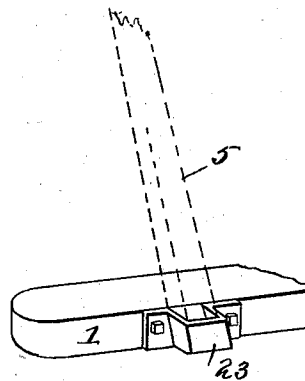
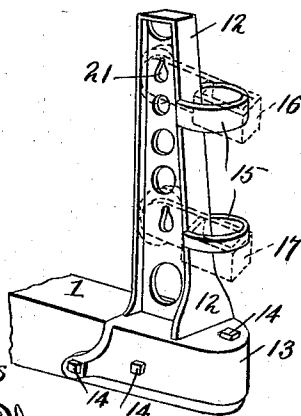


Fig. 5.



Witnesses

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UNITED STATES PATENT OFFICE.

HERMAN STEECK, OF WINONA, MINNESOTA.

WAGON.

SPECIFICATION forming part of Letters Patent No. 558,003, dated April 7, 1896.

Application filed February 18, 1895. Serial No. 538,786. (No model.)

To all whom it may concern:

Be it known that I, HERMAN STEECK, a citizen of the United States, residing at Winona, in the county of Winona and State of Minnesota, have invented certain new and useful Improvements in Wagons, of which the following is a full, clear, and exact specification.

My invention relates to wagons, and the improvements have more especial reference to the bolster-stake and to means for preventing the wagon from overturning when a hay-rack or other body portion having high sides is employed.

One of the objects of my invention is to provide the bolster-stake with means for holding one of the stakes or standards of a hay-rack or other similar structure, and which, when not in use, may be turned out of the way or removed.

Another object of my invention is to improve and simplify the bolster-stake, whereby its strength will be increased and the cost of manufacture lessened.

Another object of my invention is to give the sides of the hay-rack or other similar structure direct support upon the ends of the axle or axles, and thus prevent the wagon from upsetting.

With these ends in view my invention consists in certain features of novelty hereinafter described with reference to the accompanying drawings, and more particularly pointed out in the claims.

In the drawings, Figure 1 is a perspective view of a wagon equipped with a hay-rack and provided with my improvements. Fig. 2 is an enlarged detail view in perspective. Fig. 3 is an enlarged detail perspective view of the pin for supporting the hay-rack brace hereinafter described. Fig. 4 is a detail perspective view illustrating modified means for holding the stake for supporting the hay-rack. Fig. 5 is a perspective view, on an enlarged scale, of my improved bolster-stake, showing the removable rings in dotted lines. Fig. 6 is a transverse sectional view of the bolster-stake, taken through the shank of one of the removable rings or loops; and Fig. 7 is a similar view illustrating a modification hereinafter described.

Like signs of reference indicate like parts throughout the several views.

Referring now more particularly to Figs. 1 and 2 of the drawings, 1 represents the bolster, which may be of the ordinary form and supported upon the axle 2, of the usual construction, in any suitable manner, and 3 represents the side members of the hay-rack, which I have shown as consisting of two ladder-like portions arranged horizontally on each side of the wagon and resting in an inclined position on the bolsters 1. The upper rails of each of these side members 3 is supported by a band or strap 4, which in turn is supported on the end of each of the bolsters by a stake or standard 5, whose lower end may be secured to the bolster in any suitable manner, but preferably by the improved means which I will hereinafter describe.

6 represents a brace at each end of the axle or axles which supports the side member 3 of the hay-rack, and which is in turn supported at its lower end by the end of the axle 2, so as to give the sides of the hay-rack direct support upon the outer ends of the axles, and thus broaden the area of support of the hay-rack upon the axles, and thereby prevent the wagon from overturning, it being understood that if the hay-rack is prevented from careening independently of the running-gear the wagon cannot overturn until the center of gravity of the entire load passes outward or beyond the base of the lower wheel or wheel down the incline; but if the hay-rack is permitted to careen independently, as it will do if not supported at its outer sides as in my invention, it will carry the center of gravity so far past the center of the wagon as to pull the running-gear over and upset the wagon on a much less incline than would be required to upset it when equipped with my improvements.

As a convenient means for connecting the brace 6 to the side of the hay-rack, I provide the outer end of the plate 4 with a perforation and insert the upper end of the brace 6 through it, as more clearly shown in Fig. 2, the plate 4 being connected to the standard 5 in a similar manner, and the projecting ends 7 of such standard and the brace 6 serving to hold the upper rail of the side member 3 in place.

The lower end of the brace 6 may be conveniently supported upon the axle by means

of a pin or bolt 8, driven into the end of the axle and passing through a perforation in the end of the brace 6, such perforation being formed in a metallic plate 9 when such brace 5 is formed of wood or other soft material.

The brace 6 is held in place on the pin 8 by means of a shoulder 10 which prevents the brace from working against the end of the hub, and a pin 11 which passes through the pin 10 8 and holds the brace from working off the outer end of the latter.

The end of the pin 8 is provided with screw-threads, as shown in Fig. 3, in order that the pin may be secured in the end of an ordinary 15 wooden axle, the axle being first provided with an axial bore to receive the pin, and the pin being then screwed home by means of a wrench applied to the shoulder 10, which for this purpose is square or prismatic. If the 20 axle should be of the tubular form usually constructed of metal, the pin 8 may be driven therein to nearly the desired distance and then turned to cause the threads thereon to bite into the material of the axle, and thus 25 hold the pin from being withdrawn.

It is of course understood that the braces 6, being held at their upper ends by simply the strips 4 and pivoted at their lower ends, will go and come with the front wheels, and 30 thus permit the front axle to oscillate in turning the wagon.

My improved bolster-stake is preferably constructed of an I-beam 12, whose lower end is cast or formed integrally with a socket-piece or foot 13, which fits over and around 35 the end of the bolster 1 and is secured to the latter by any suitable number of transverse bolts 14. The I-beam is also cast integrally with a number of rings 15 for the reception of 40 the stake or standard ordinarily employed when brush, lumber, or logs are to be hauled upon the wagon. For such purposes, however, the stake or standard held by the rings 15 is preferably arranged in a substantially 45 perpendicular position, and in order that the same bolster-stake may be employed for holding the standard or upright 5 in an inclined position I provide each of the bolster-stakes with additional stake rings or loops 16 17, the 50 upper one, 16, of which is arranged farther outward than the lower one, whereby the standard 5, when inserted in the two, will be rigidly held in an inclined position, as shown in Figs. 1 and 2. In order that these additional 55 rings 16 17 may be removed when not in use or may be applied at will to any bolster-stake made in accordance with my invention, I provide their extensions or arms 18 with laterally-projecting shanks 19, whose 60 ends are provided with keys or lugs 20, whereby such shanks may be inserted through keyhole perforations or sockets 21, formed in the web of the I-beam 12, and when the loops or rings 16 are turned to a horizontal position 65 for the reception of the standard 5 the lugs or keys 20 will lock the shanks 19 against

withdrawal in the manner more clearly shown in Fig. 6; but when the loops 16 17 are turned upward the said shanks may be withdrawn. 70 When turned downward out of the way, however, the lugs or keys 20 will still engage, as will be understood, and prevent the withdrawal of the shanks. Hence it will be seen that with my improvements the additional loops or rings 16 17 may be entirely removed 75 and laid aside, safe from injury, or may be turned down out of the way when not in use, it being also seen that should either of the additional loops 16 17 become broken or damaged it may be readily replaced without the 80 necessity of replacing the entire bolster-stake.

In order that the arms 18 of the rings or loops 16 17 may have firm support against the web of the I-beam 12, I provide them each with a boss or an enlargement 22, as shown 85 in Fig. 6. This boss, however, may be substituted by a boss 22^a, cast upon the web of the beam 12, as shown in Fig. 7.

Although it is desirable to employ my improved bolster-stake for holding the standards 90 5 of the hay-rack, it will, nevertheless, be understood that so far as the operation of my improvements for preventing overturning of the hay-rack is concerned such standard 5 95 may be held in any other convenient manner—such, for instance, as the ordinary loop or socket 23, secured to the side of the bolster 1, as shown in Fig. 4.

Having thus described my invention, what I claim as new, and desire to secure by Letters 100 Patent, is—

1. As a new and useful article of manufacture, a bolster-stake having keyhole-sockets in combination with stake-rings having key-shanks adapted to fit in said sockets for se- 105 curing said rings in place, substantially as set forth.

2. The combination with a bolster-stake, of stake rings or loops having the arms 18 and shanks 19 pivotally connected to said stake, 110 substantially as set forth.

3. The combination with the I-beam, bolster-stake having keyhole-sockets therein, of stake-rings having shanks provided with the keys or lugs 20 fitting in said sockets, and 115 the bosses 22, substantially as set forth.

4. The combination with the axle and the side members of a wagon-body, of braces extending from said side members and being 120 supported at their lower ends at or near the ends of said axle, substantially as set forth.

5. The combination with the axle and the side members of a wagon-body, of braces extending downwardly from said side members and pins projecting from the ends of the axle 125 and supporting said braces, substantially as set forth.

6. The combination with the axle and the side members of a wagon-body, of braces extending downwardly from said side members, 130 the screw-threaded pins 8 inserted into the ends of the axle and supporting said braces,

said pins being provided with the shoulders 10 and pins 11, substantially as and for the purpose set forth.

5 7. The combination with the axle, the bolster and the rack members 3, of the standards 5 secured to said bolster, the braces 6 supported directly upon the axle and the straps or plates 4 connecting said braces 6 and

standards 5, together at their upper ends and supporting the upper edges of said rack members 3, substantially as set forth. 10

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Witnesses:

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