

UNITED STATES PATENT OFFICE.

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WAGON-STANDARD.

SPECIFICATION forming part of Letters Patent No. 789,427, dated May 9, 1905.

Application filed April 9, 1904. Serial No. 202,451.

To all whom it may concern:

Be it known that CHRISTOPH HOTZ, deceased, who was a citizen of the United States, and a resident of Chicago, in the county of Cook and State of Illinois, was the inventor of certain new and useful Improvements in Wagon-Standards; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to a novel standard or stake for wagon-bolsters, the invention being more especially adapted to lumber-wagons, although capable of being adapted to wagons used for other purposes.

The invention consists in the matters hereinafter set forth, and more particularly pointed out in the appended claims.

Among the objects are to provide a standard which shall be strong and durable in itself and which shall have a strong and reliable connection with the bolster.

In the drawings, Figure 1 is a side elevation of one end of a rear bolster of a wagon, showing one end of the skein and axle and illustrating the application of the improved standard thereto. Fig. 1^a is a plan section taken on line 1^a 1^a of Fig. 1. Figs. 2, 3, and 4 are transverse vertical sections taken on lines 2 2, 3 3, and 4 4, respectively, of Fig. 1. Fig. 5 is a bottom plan view of the metal standard. Fig. 6 is a view similar to Fig. 1, showing the application of the standard to the front bolster of a wagon. Figs. 7, 8, and 9 are transverse vertical sections taken on lines 7 7, 8 8, and 9 9 of Fig. 6.

As shown in the drawings, A designates the rear axle of a wagon, and A' the skein. B designates the rear bolster, and B' the front bolster.

C designates as a whole the improved standard, which consists of a single or integral piece of metal and is made, preferably, of malleable iron. Said standard is provided with a horizontally-arranged base plate or portion C', which fits on the upper face of the bol-

ster, and the main part or body thereof consists of a flat web portion C³, which rises from the horizontal base and has an outer flanged edge C² and an inner flanged edge C⁵. Said inner flanged edge is inclined downwardly and inwardly, so that the stake as a whole is wider at its bottom than at its top. This form in the stake gives a downwardly and inwardly inclined form to the side of the load of lumber, which is usually desired in order to permit the front wheel to turn freely under the load. The flanged outer edge C² of the standard is shown as extended at the bottom of the standard to form a socket c. The lower end of said socket is joined to the end portion of the base-plate which extends outwardly beyond the flange C² on the web portion C³. A guide-ring c' is likewise formed at the top of the stake. Said guide-ring may, however, be made separate therefrom and attached thereto in any suitable manner.

Devices are provided for fastening the standard to the rear bolster as follows: The base-plate C' of the standard is provided on its inner end with two lateral oppositely-directed apertured lugs c² c², which when the standard is in place extend beyond the side faces of the bolster. Through the apertures of these lugs extend two vertical bolts D D, said bolts being located in front and in rear of the bolster and extending through the rear end of the hound E of the running-gear and are adapted to be connected to a clip-bar (not shown) which extends under the rear bolster in familiar manner. F designates a clip which embraces and extends over the base-plate C' of the standard, said clip extending through an opening c³, formed in the web portion C³ to receive it. The shank portions f f of said clip extend through a stool F', which is formed integral with and rises from a collar F², which encircles and is secured to the axle-skein near the inner end of the latter. The end portions f f of the clip F are shown as arranged to embrace a U-shaped strap G, which extends horizontally around the end of the bolster and is secured thereto by means of a bolt g, extending through the ends of the strap and

through the bolster. The standard is further held in place by means of a bolt H, which extends downwardly through the end portion of the base-plate, which extends beyond the outer flange C² of the web portion C³ and through the bolster near the outer end thereof. As herein shown, the opening in the base-plate to receive the bolt H is located in the bottom of the socket c, in which the lower end of the extension-stake rests. The base-plate is provided with a longitudinal depending rib C⁴, which enters a longitudinal groove in the bolster. Said rib C⁴ is shown more clearly in Fig. 5 and indicated in dotted lines in Fig. 1 and in full lines in Fig. 3. Said rib serves to strengthen or stiffen the part of the base-plate below the opening c³ in the web C³ to withstand strain coming on the base-plate at that point through the engagement of the holding devices, as the clip F, therewith. The rib C⁴ also serves to hold the stake from shifting laterally on the bolster. To more securely hold the standard from shifting endwise on the bolster, the base-plate is also provided on its bottom surface with a transverse rib C⁶, located, preferably, at the inner end of the base-plate and in line with the lugs c², which form endwise extensions of said rib. The rib C⁶ fits in a groove or gain made in the top surface of the bolster to receive it.

The standard C for the forward bolster is like that before described; but the attaching means employed therefor are somewhat different. As shown in Figs. 6 to 9, I I indicate holding-bolts which pass through the ears or lugs c² on the base-plate and extend at their lower ends through the apertured ends of a cross-bar I', which is fitted to the lower face of the bolster. J K indicate other bolts, which are arranged centrally of said base-plate and of the bolster. The bolt J extends through an aperture c³, formed in the base-plate within the opening c³ in the web C³. Said aperture c³ extends through a circular boss forming part of the rib c⁴ on the said base-plate. The bolt K extends through an aperture in the bottom of the socket c in the same manner as the bolt for the rear bolster. Fitted to the bottom face of the bolster is a longitudinally-arranged strap L, through which the bolts J and K extend. The clip-bar I', which is engaged by the bolts I, is recessed to fit around said bottom strap L in the manner clearly shown in Fig. 9. The standards are preferably made alike or so as to be used interchangeably for the front and rear bolsters, the opening c³ at the middle part of the base-plate permitting the use of either a clip or a bolt at that place.

In cases where a wear plate or bar M is provided on the upper face of the bolster, such as is indicated in Figs. 1 and 6, said wear-plate may be fastened to the bolster in addition to the usual fastening means by having

the ends thereof inclined in the manner indicated in said figures and making the adjacent surfaces of the inner ends of the standard base-plate undercut to fit over the ends of the wear-plate.

Heretofore it has been a common practice to provide wooden bolsters with wooden stakes or standards provided with rings or sockets to receive extension-stakes and attached to the bolster by tenons fitting mortises in the bolster. The objection to this construction has been that water finds its way into the mortise, whereby the standard soon rots away and becomes insecure and unsafe. The one-piece metallic stake made in accordance with this invention has the advantage of being strong in itself and capable of attachment to the bolster in a strong and reliable manner. The one-piece metallic stake having a wide lower end and a gage-base made integral with the body part throughout its length and an inner inclined margin is a specifically desirable feature of this construction, for the reason that it provides at once a long base for the standard, whereby an efficient connection therewith with the bolster is afforded and a very strong construction in the standard as a whole. The standard itself is therefore made amply strong to resist the outward stress of the load, and at the same time ample means are afforded for securely fastening the standard to the bolster. An advantage of the manner of fastening as herein shown is that the bolster is entirely covered or protected in its part adjacent or connected with the standard, so that there is no opportunity for the entrance of water to the surface of the bolster beneath the standard, and liability of rot or decay of the bolster taking place at that point is thereby prevented.

It is obvious that various deviations in the structural details of the standard may be made from that herein shown, and the invention is not limited to the exact construction herein shown, except as hereinafter made the subject of specific claims.

The invention claimed is—

1. A one-piece metallic wagon-stake of generally triangular form consisting of a web portion flanged on its inner and outer edges, the inner edge being inclined downwardly and inwardly, and a horizontal base-plate adapted to rest on the top of the bolster.

2. The combination with a wagon-bolster, of a one-piece metallic stake of generally triangular form, consisting of a web portion which is flanged at its inner and outer margins, the inner margin being inclined downwardly and inwardly, and a horizontal base-plate which rests on the top of the bolster, and means engaging the base-plate for clamping the same to the bolster.

3. A one-piece metallic wagon-stake embracing a web portion provided with flanges on its inner and outer edges, a horizontal base-

plate, and a stake-socket formed by a tubular extension of the outer marginal flange of the web portion.

4. A one-piece metallic wagon-stake embracing a vertical portion and an integral horizontal base-plate adapted to fit upon the upper surface of, and be attached to, a wagon-bolster, said vertical web being provided on the outer margin at its top with a stake-ring and said base-plate being extended outwardly beyond the web and provided in alinement with said ring with an upwardly-opening stake-pocket.

5. A one-piece metallic wagon-stake embracing a web portion provided with flanges on its inner and outer margins, a horizontal base-plate, and a stake-socket formed by an extension of the outer flanges of the web portion and joined at its lower end to the base-plate.

6. The combination with a wagon-bolster, of a one-piece metallic stake, of generally triangular form, the inner margin of which inclines downwardly and inwardly and provided with a horizontal base-plate adapted to fit on the top of the bolster, said base-plate being provided with laterally-projecting lugs which extend beyond the side faces of the bolster, and means engaging said lugs for clamping the stake to the bolster.

7. A one-piece metallic wagon-stake provided with a horizontal base-plate adapted to fit on the top surface of a bolster, said base-plate being provided with a depending, transverse rib adapted to engage a transverse groove in the bolster and with lugs projecting laterally from the base-plate and forming end-wise extensions of said transverse ribs, and adapted to engage fastening devices for fastening the stake to the bolster.

8. A one-piece metallic wagon-stake provided with a horizontal base-plate adapted to fit on the top surface of a bolster, said base-plate being provided with a longitudinal, depending rib, with a transverse depending rib, and with laterally-extending lugs forming end-wise extensions of said transverse rib, and adapted to engage means for fastening the stake to the bolster.

9. A one-piece metallic wagon-stake embracing a web portion which is flanged on its inner and outer edges and provided on its outer edge with a pocket to receive a vertical stake and a horizontal base-plate adapted to fit on the top surface of a bolster, the said web portion being provided between said stake-pocket and the inner end of the base-plate with an opening adjacent to the base-plate to

permit the engagement with the central part of the latter of means for clamping the stake to the bolster.

10. A one-piece metallic wagon-stake embracing a web portion flanged at its inner and outer margins and a horizontal base-plate, said web being provided with an opening adjacent to the base-plate, and the latter having in its part below the opening a longitudinal, depending, strengthening and holding rib.

11. A one-piece metallic stake embracing a web portion flanged on its inner and outer edges, a horizontal base-plate, and a stake-socket which is formed by an extension of the outer flanges of the web portion, and is joined to the outer part of the base-plate, said base-plate having a bolt-hole within the socket.

12. A one-piece metallic stake embracing a vertical web portion flanged on its inner and outer edges, and inclined inwardly and downwardly at its inner edge, and a horizontal base-plate, said base-plate being provided at the base of said inner inclined margin of the stake with laterally-extending lugs adapted for engagement therewith of means for clamping the stake to the bolster, the said base-plate being extended outwardly beyond the outer margin of the web portion and provided at its outwardly-extending part with a bolt-hole.

13. A one-piece metallic wagon-stake embracing a web portion which is flanged at its inner and outer margins, and a horizontal base-plate, said base-plate having at its inner end laterally-extending lugs, and being extended past the outer margin of the web portion and provided in its outwardly-extended part with a bolt-hole and the said web portion having an opening adjacent to the central part of the base-plate, said base-plate also having a longitudinal depending rib in its part below the said opening in the web.

14. A metal stake for wagon-bolsters of generally triangular form, provided with a base-plate made integral with the stake and adapted to rest on the top of the bolster, the inner margin of the standard being inclined downwardly and inwardly.

In testimony that we claim the foregoing as the invention of the said CHRISTOPH HOTZ we affix our signatures, in presence of two witnesses, this 25th day of April, A. D. 1904.

ROBERT SCHUTTLER HOTZ,
CLARA JESSIE REHM,

Executors of the estate of Christoph Hotz, deceased.

Witnesses:

JOHN N. YOUNG,
DAVID JETINGER.