(No Model.)

J. HAISH.

WAGON BOLSTER.

No. 384,619. Patented June 19, 1888.

Fig. 1.

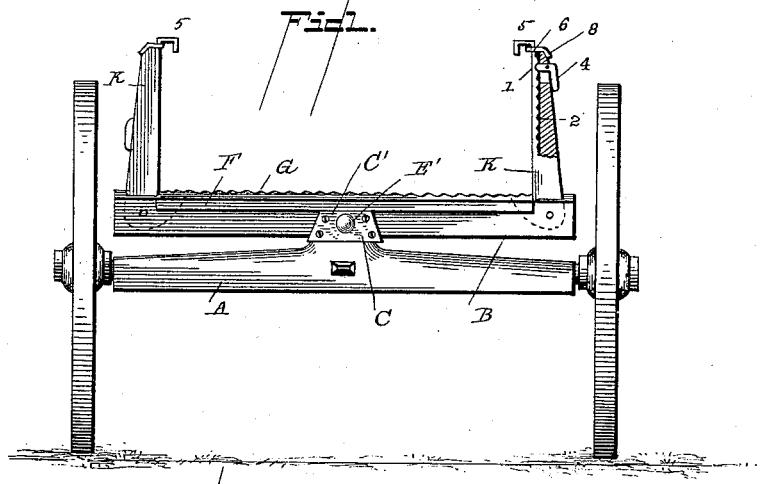


Fig. 2.

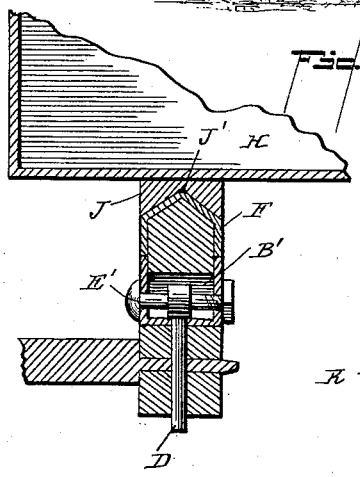


Fig. 3.

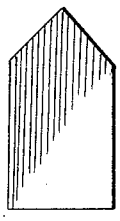


Fig. 4.

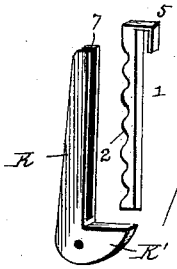


Fig. 6.

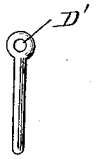
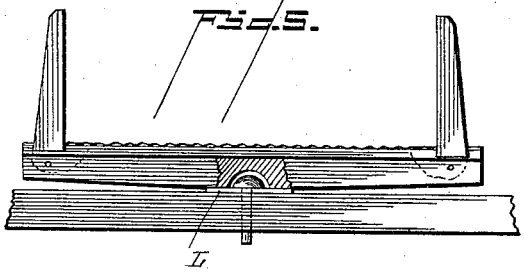


Fig. 5.



WITNESSES.

Edwin L. Yewell.

Jos. A. Ryan

INVENTOR.

Jacob Haish.

By John G. Manahan.

his Attorney.

UNITED STATES PATENT OFFICE.

JACOB HAISH, OF DE KALB, ILLINOIS.

WAGON-BOLSTER.

SPECIFICATION forming part of Letters Patent No. 384,619, dated June 19, 1888.

Application filed February 23, 1888. Serial No. 265,030. (No model.)

To all whom it may concern:

Be it known that I, JACOB HAISH, a citizen of the United States, residing at De Kalb, in the county of De Kalb and State of Illinois, have invented certain new and useful Improvements in Wagon Bolsters and Stakes; 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, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

My invention has reference to improvements in wagon-bolsters; and it consists more especially in a provision for preventing the slipping backward or forward of the wagon-box, and in means for releasing the pressure upon the sides of the wagon-box in the removal of the latter; also, in narrowing the upper surface of the bolster, whereby the collection and accumulation of dirt thereon is prevented.

The downward inclination of the wagon-box in passing down descending portions of the road has a tendency to jar or throw the box forward, so as to project too far over the front bolster, and in some instances to be in danger of striking the team. One means of preventing this forward movement is to have the stakes fit snugly against the sides of the box, and, in fact, such close fitting is essential to resist the outward pressure of the material carried within the box. This tight fitting of the box between the stakes makes the removal of the former sometimes a quite difficult operation, particularly if the box should have become damp or wet, and consequently swollen.

My invention, therefore, has a two-fold object—in the ordinary use of the wagon, when the removal of the box should be necessary in order to substitute timber or boards for hauling stone, earth, or manure, or a rack for hay or straw, to render easy and convenient the removal of the wagon-box, and also to prevent any longitudinal slipping of the latter.

As my invention pertains exclusively to the construction and operation of the bolster and stake, I do not deem it necessary to show or describe any portion of the wagon other than sufficient to illustrate the location and operation of my invention.

In the drawings, Figure 1 is a rear elevation, in perspective, of an axle supporting a bolster provided with my invention. Fig. 2 is a cross section thereof in the line *x x* of Fig. 1, with the box in position. Fig. 3 is an end view of my bolster. Fig. 4 is a detail of the stakes and box-hook. Fig. 5 is a rear elevation of the rear bolster, which I prefer to have pivotally seated, so that it will be adapted to rock laterally with the front bolster, and thus prevent the usual wrenching of the wagon-box; and Fig. 6, a detail of the king-bolt.

A is an ordinary axle, supported in the usual way upon carrying-wheels.

B is a bolster pivotally seated centrally on said axle.

C is an iron cap or plate for the center of the bolster, having upwardly-projecting sides C′, between which the bolster B is seated. The cap C is suitably fastened to the bolster B, from either the bottom or through the sides C′, or both.

D is a king-bolt, having its upper end seated in a suitable recess, B′, formed in the lower surface of the bolster, and provided with a transverse hole, D′, and is supported by a bolt, E′, passed transversely through the recess B′ and openings E in the sides C′ of the cap C, the bolt E′ being held in place by the usual nut or cross spring-key. The lower end of the king-bolt D is projected downward into the axle A in the usual manner.

The upper surface of the bolster B is formed in two sides, rising toward the center, as shown in Fig. 3, and on such upper surface is suitably fastened an angle-iron, F, with its outer angle upward and directly over the longitudinal center of the bolster B. The upper surface or apex of the iron F is formed with transverse corrugations G.

To the bottom of the wagon-box H, at the point thereof which rests upon the bolster B, is suitably attached transversely the second angle-iron, J, having its outer angle downward and fitted to rest on and over the bolster-irons F. In the inner angle of the iron J are formed cross-corrugations J′, between which the projected corrugations G of the bolster-

iron F project and rest. By this means the wagon-box H is not only held from longitudinal movement, but in addition the stakes are assisted in holding the box against lateral jar or movement.

K K are stakes or standards pivotally seated at the lower ends in the bolster B, at or near each end of the latter. On the inner sides of the stakes are formed the inwardly-projecting flanges K′, at right angles with the inner vertical and engaging face of the upright portion of said stakes. The stakes K are pivoted within and in such relation to the upper surface of the bolster B that when the stakes K are vertical the flanges K′ will be but slightly below the apex of the corrugations G of the iron F on said bolster B, so that a portion of the weight of the box H rests upon the flanges K′ and serves to hold the stakes K snugly against the sides of said box, and the greater the weight of the box H or its contents the more firmly will the stakes K be held against the outward pressure of said box.

It is obvious that in the removal of the box H the moment the pressure of the latter on the flanges K′ is relieved the stakes K will be free to swing outward and render such removal easy and convenient. Between the box H and stakes K there is interposed a vertically-adjustable hook, 1, having an externally corrugated shank, 2, and having its upper end formed into an inwardly-extending hooked end, 5, adapted to hook down upon the upper edge of the side of box H. The inner face of the stake K is provided with suitable ways, 7, in which the hook 1 is moved up and down. A bell-crank lever, 4, is pivotally seated in the stake K, with its inner end adapted to engage the corrugations.

The lever 4 is pivoted eccentrically in the stake K, with its inner end slightly below its pivot when the outer end or handle of said lever is forced down against the outside of said stake. This has the effect of forcing the inner end of the lever 4 into one of the corrugations 2 and holding the hook 1 firmly against end movement in either direction. When the outer end of the lever 4 is raised, the hook 1 is released, and can then be lowered or raised. The purpose of the hook 1 is to prevent the usual bouncing from the bolster B of the box H when empty during the movement of the wagon, which is not only noisy, but injurious to the box. The hook 1 passes up through and is held in part in a slot, 6, formed in the top cap, S, of the stake K. If a top or second box, H, is used, the hook 1 can be raised to engage the upper edge of the upper box.

The rear bolster, B, (shown in Fig. 5,) is constructed substantially as the front bolster, with the exception that the bolt D therein is formed with a round head suitably supported above a base-plate, L, suitably fastened centrally on the base of the bolster B, a suitable recess being formed in the latter to receive the head of the bolt D. In the rear bolster the bolt D is inserted through the plate L before the latter is attached to the bolster. If the bolster B be made of iron, which I think preferable, the iron F may be made integral therewith.

What I claim as my invention, and desire to secure by Letters Patent of the United States, is—

1. The bolster B, provided on its upper surface with the corrugated angle-iron F, substantially as shown, and for the purpose described.

2. The combination of the bolster B, provided with angle-iron F, and box H, provided with angle-iron J, substantially as shown, and for the purpose described.

3. The combination of the box H, the bolster B, and stakes K, provided with inwardly-extending flanges K′, and pivotally seated in the respective ends of said bolster, substantially as shown, and for the purpose described.

4. The combination of the hook 1, provided with corrugated shank 2, stake K, provided with ways 7 and slot 6, and the eccentrically-seated lever 4, substantially as shown, and for the purpose described.

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

JACOB HAISH.

Witnesses:

SAML. P. BRADSHAW,

PETER LINDBERG.