

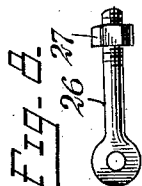
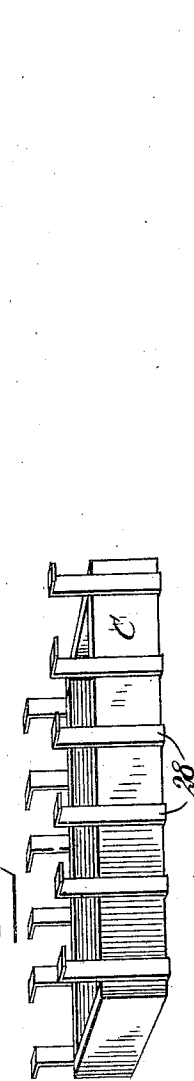
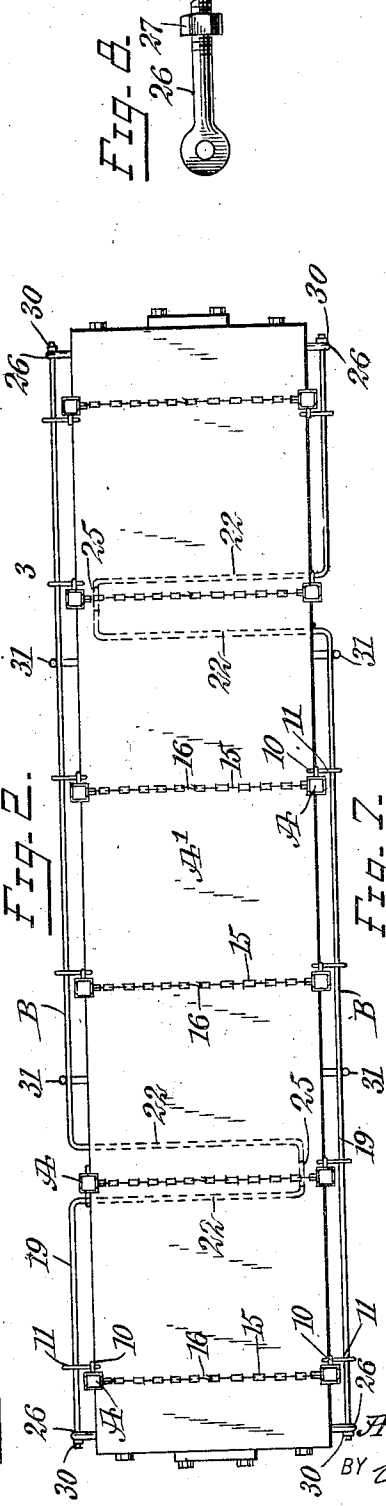
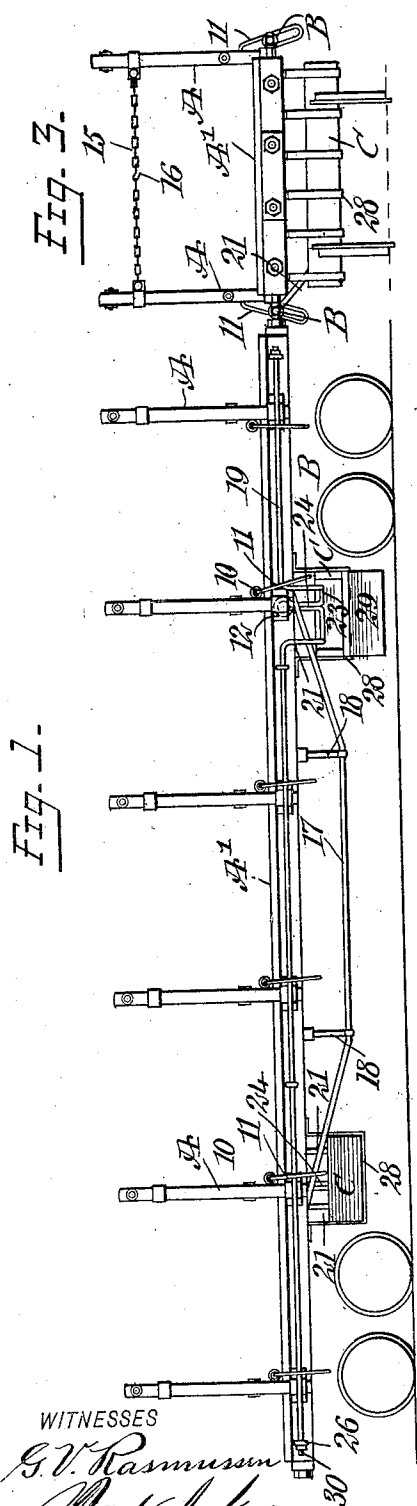
No. 835,930.

PATENTED NOV. 13, 1906.

A. S. BEVILLE.
STAKE AND STRAP APPLIANCE FOR FLAT CARS.

APPLICATION FILED AUG. 10, 1906.

2 SHEETS—SHEET 1.



WITNESSES
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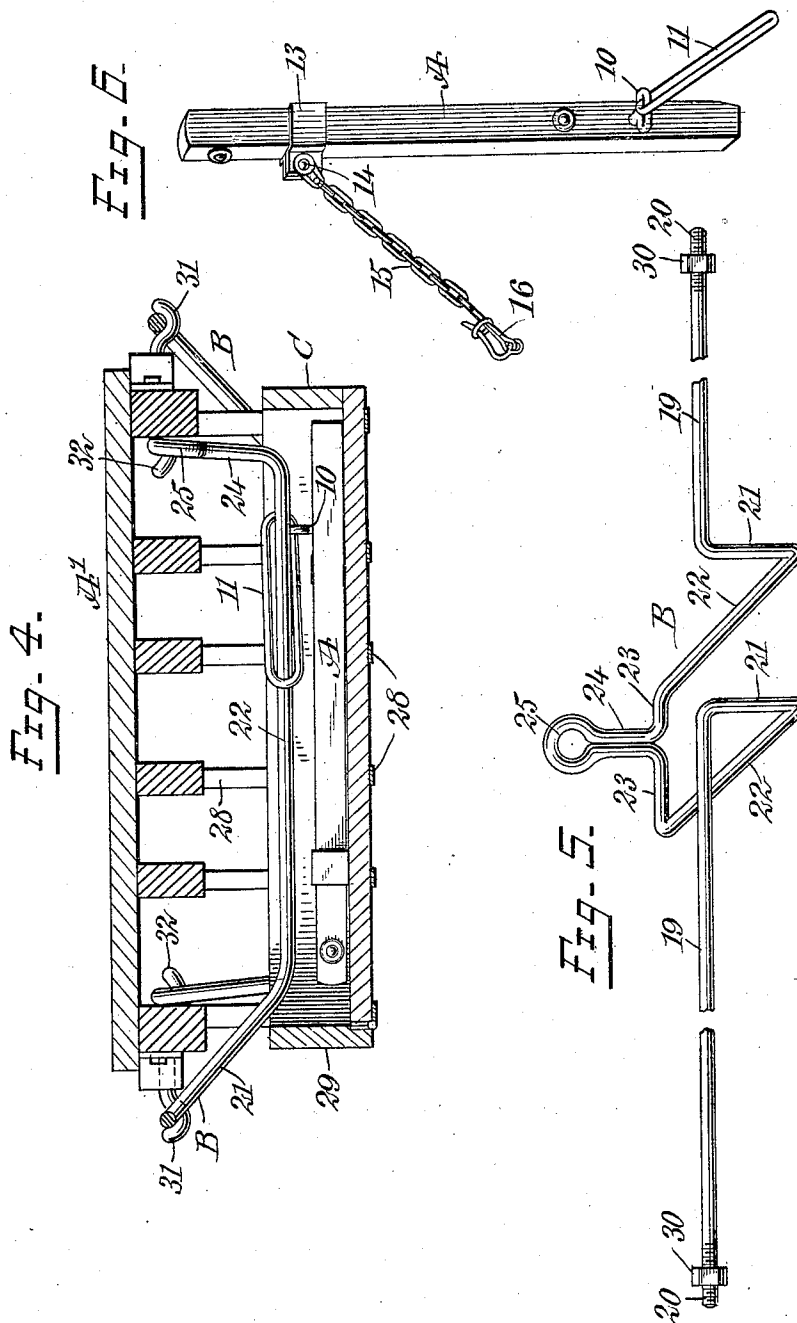
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2 SHEETS—SHEET 2.



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ALFRED STEPHEN BEVILLE, OF JACKSONVILLE, FLORIDA.

STAKE AND STRAP APPLIANCE FOR FLAT-CARS.

No. 835,930.

Specification of Letters Patent.

Patented Nov. 13, 1906.

Application filed August 10, 1906. Serial No. 330,012.

To all whom it may concern:

Be it known that I, ALFRED STEPHEN BEVILLE, a citizen of the United States, and a resident of Jacksonville, in the county of Duval and State of Florida, have invented a new and Improved Stake and Strap Appliance for Flat-Cars, of which the following is a full, clear, and exact description.

The purpose of the invention is to provide an attachment to flat-cars by means of which the stakes will be locked to the car in such manner that they may be quickly fitted to their pockets or removed therefrom and whereby when removed and permitted to drop they will yet remain connected with the car, thus avoiding losing the stakes, which otherwise frequently happens.

A further purpose of the invention is to provide a means whereby the stakes although connected with the car can be quickly and conveniently directed to the pockets adapted to receive them and also to provide a means whereby the stakes when not in use can be conveniently assembled and housed beneath the body of the car.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of a car having the improvements applied. Fig. 2 is a plan view thereof. Fig. 3 is an end view. Fig. 4 is a transverse section through the body of the car and one of the storage-receptacles, illustrating a stake located therein, and the said view is also a section through the straps of the car adapted as guides for the stakes. Fig. 5 is a detail perspective view of one of the guides detached from the body of the car. Fig. 6 is a detail perspective view of one of the stakes removed from the car. Fig. 7 is a perspective view of the receptacle adapted to receive the stakes, and Fig. 8 is a detail view of a bolt adapted as an end guide for a strap.

A represents a stake for a car, which stake is of the usual construction; but said stake at its outer face near its lower end is provided with a fixed eye 10, and said eye 10 carries a lengthy link 11. The stakes A are adapted to fit into the customary pockets 12, arranged in the ordinary manner along the outer faces

of the side sills of the body A' of the car. Each stake A is provided with a sleeve 13 adjacent to its upper end, and said sleeves are split sleeves, being provided with flanges at the inner faces of the stakes, which flanges are secured together by means of a bolt 14, and the flanges of each sleeve 13, also through the medium of the said bolts 14, hold between them the outer ends of chains 15, which are provided with hooks 16 at their inner ends, so that when the stakes are in their pockets, as is shown in Fig. 2 and in Fig. 3, transversely-opposing stakes A may be connected by causing the hook of one chain to enter a link of the opposing chain. The hooks are constructed in hinged sections held in locking position by a ring, as is shown in Fig. 6.

The body A' of the car is provided with the usual struts 17 for bracing it, located at the bottom thereof, the ends of the struts being secured to the said body, and hangers 18 extend down from the said body, engaging the said struts at each side of the center, so that the central portions of said struts, which are at the central portion of the body, are parallel with the body.

Straps B are employed, one being located at each side of the body A' of the car outside of the side sills thereof, occupying such position as not to interfere with the stake-pockets 12, as is clearly shown in Fig. 2. Each of the straps B is constructed substantially as is illustrated in Fig. 5, wherein it will be observed that a strap consists of a strap of bar metal, preferably circular in cross-section, which strap comprises a horizontal straight body-section 19, having its terminals 20 threaded, and between the center of the body and one end thereof the material of the body is carried downward, forming downwardly and more or less inwardly extending members 21, which members are parallel with each other, and from each member 21 a horizontal member 22 is inwardly carried, the said horizontal members being parallel also with one another. The metal is then, furthermore, bent upon itself to form connecting inner end members 23, and from the central portion of the said inner end of the horizontal section of a strap a dual shank 24 is upwardly carried, terminating in an eye 25. The members 21 are therefore at an angle to the body 19, the members 22 are at an angle to the members 21, and the shank 24 is at an angle to the members 22 and 23.

At each end of the car an eyebolt 26 is se-

cured to the side sills, extending horizontally outward therefrom and held in position by suitable nuts 27 engaging with the inner faces of the sills. The eyes of the bolt 26 receive the threaded ends of the body-sections 19 of the straps B, and said straps are held against end movement by screwing nuts 30 on their threaded portions to an engagement with the outer faces of the eyes of the bolts 26, as shown in Figs. 1 and 2. The links 11, connected with the stakes A, are loosely mounted on the straps B, and said links have not only lateral play on said straps, which serve as guides for said links, but the links have also vertical play on the straps, so that the stakes may be readily adjusted to their pockets or can be lifted out therefrom and dropped downward without danger of the stakes being lost, since their links will prevent said stakes from leaving the car whether they trail on the ground or not.

In placing the straps B the horizontal rectangular frame-section of one strap extends transversely beneath the car adjacent to one end, while the corresponding portion of the opposing strap extends transversely beneath the car adjacent to its other end, as is indicated clearly in Fig. 2. Each horizontally-extending frame-section of a strap B is located within a box C, supported transversely beneath the body of the car, as clearly shown in Fig. 4. These boxes are held in place, preferably, by straps 28, which engage with the sides and bottoms of the boxes, and are secured at their upper ends to the under faces of the sills of the flooring of the car. Each box C has one of its ends 29 hinged so that it can drop downward for the purpose of sliding out the stakes A, which are assembled in the said boxes C when the stakes are not in use, since it is evident that these stakes through the medium of their links can be moved to any point in the length of the strap that carries them.

The body-sections 19 of the straps B are supported between their ends by hangers 31, secured to the side sills, which hangers 31 are open at the top, so as to admit of the ready passage of a link over the hangers when necessary. The horizontal sections of the straps B are supported in their horizontal position beneath the car by pins 32 or their equivalents passed through the eyes 25 of the upwardly-extending horizontal sections of the straps and into the inner faces of the side sills of the car, as is best shown in Fig. 4.

It will be observed that when the attachment is applied to a car it is impossible for the stakes to become lost, and, further, that the stakes may be manipulated as readily as though the attachment were not present. Furthermore, it is obvious that the stakes can be stored away or more properly housed beneath the body of the car when not required, the hinged doors 29, provided for the

boxes C, admitting of the ready outward or inward passage of said stakes.

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

1. The combination with a car having stake-pockets, of stakes adapted to fit in the pockets, and means connecting the stakes with the car, said means being slidably mounted on the car.

2. The combination with a car having stake-pockets, of stakes adapted to fit in the pockets, and links pivotally connected with the stakes and slidably mounted on the car.

3. The combination with a car having stake-pockets, of stakes adapted to fit in the said pockets, links pivotally connected with the stakes and slidably mounted on the car, and a box supported under the car for receiving the stakes when removed from their pockets.

4. In a car, longitudinally-extending guide-rails at the sides of the car, stakes for the car, and means for pivotally and slidably connecting the stakes with the guide-rails.

5. In cars, guide-rails extending along the sides of the car and beneath the car, stakes for said car, and links pivotally attached to said stakes, through which links the said rails pass.

6. In flat-cars, the combination with the body thereof, of straps supported at each side and at the bottom of said body, each strap consisting of a horizontal body member and a horizontal inwardly-extending frame-section at an angle to the body members, which frame-section lies transversely beneath the body of the car, and supports for the said frame-sections, the frame-section of one strap extending beneath the car near one end and the frame-section of the opposing strap extending beneath the car near the opposite end, stakes for the car, and a sliding connection between the stakes and the said straps.

7. In flat-cars, the combination with the body of a car, of straps supported at each side and at the bottom of said body, each strap consisting of a horizontal body member and a horizontal inwardly-extending frame-section at an angle to the body member, which frame-section lies transversely beneath the body of the car, and supports for the said frame-sections, the frame-section of one strap extending beneath the car near one end and the frame-section of the opposing strap extending beneath the car near the opposite end, stakes for the car, a sliding connection between the stakes and said straps, a box located beneath each frame-section of a strap, and means for supporting the said boxes, said boxes being adapted to contain the stakes adjusted on the said straps when said stakes are not required for use.

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8. The combination with a flat-car, its
stake-pockets, and stakes fitted to said pock-
ets, of a strap supported at each side of the
said body, each strap being provided with a
5 downwardly and forwardly horizontally ex-
tending section having means at its inner end
for attachment to the body of the car, links
connected with the stakes, through which
links the straps are passed, and a box sup-
10 ported from the body of the car beneath each
inwardly-extending frame-section of a strap,

said frame-sections for the straps being lo-
cated at the opposite ends of the body of the
car.

In testimony whereof I have signed my 15
name to this specification in the presence of
two subscribing witnesses.

ALFRED STEPHEN BEVILLE.

Witnesses:

WM. A. HALLOWES, Jr.,
M. B. BRITTAIN.