

F. W. BLECKLEY.
BOLSTER.
APPLICATION FILED JAN. 5, 1909.

946,835.

Patented Jan. 18, 1910.

2 SHEETS—SHEET 1.

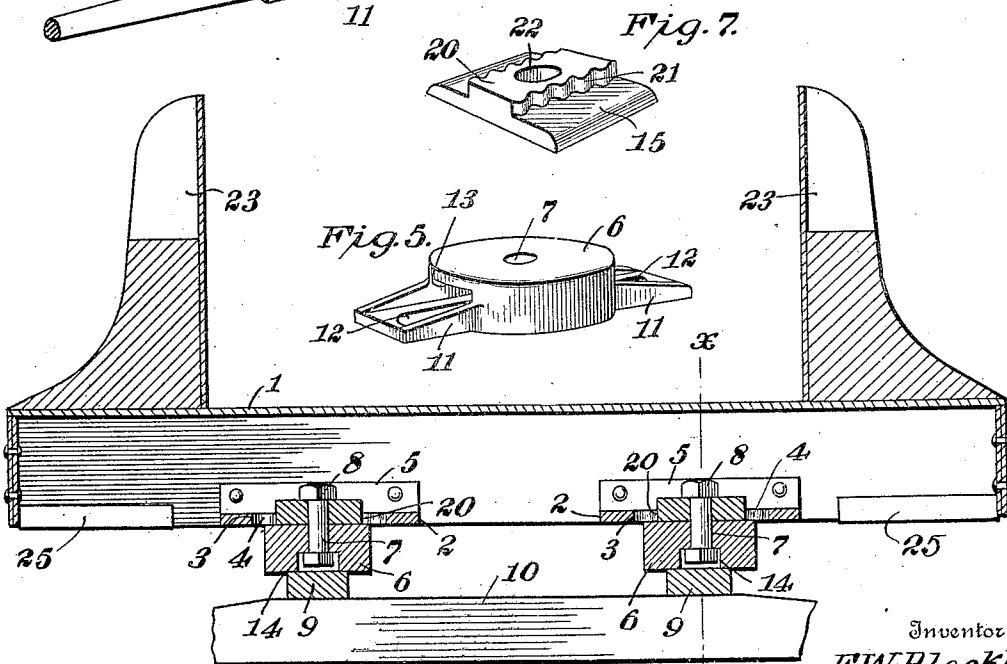
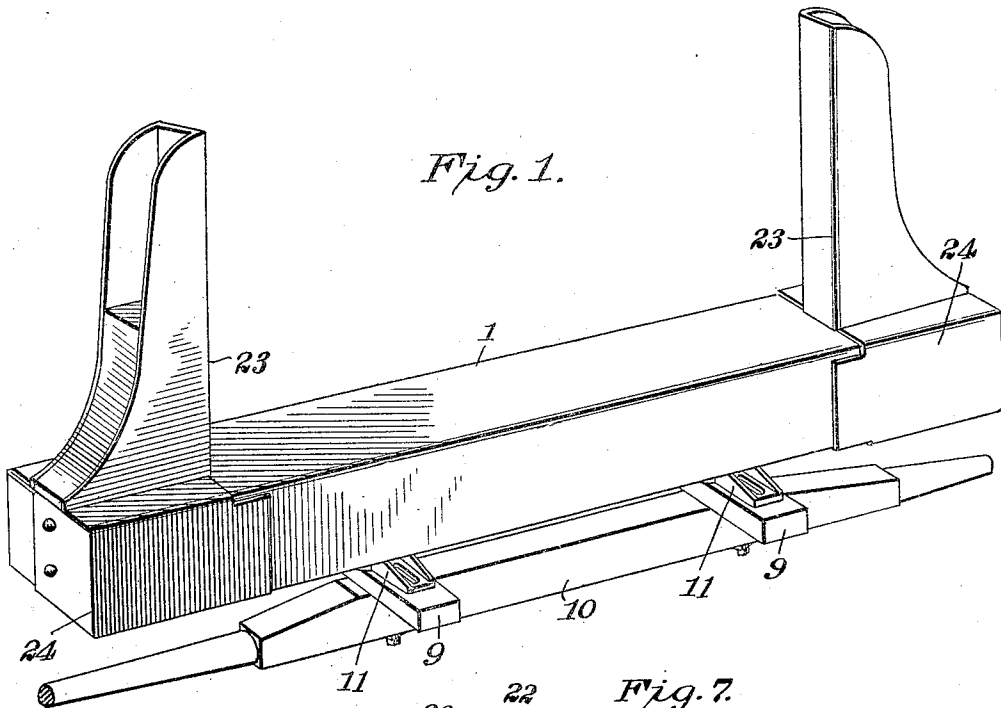


Fig. 2.

Witnesses

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2 SHEETS—SHEET 2.

Fig. 3.

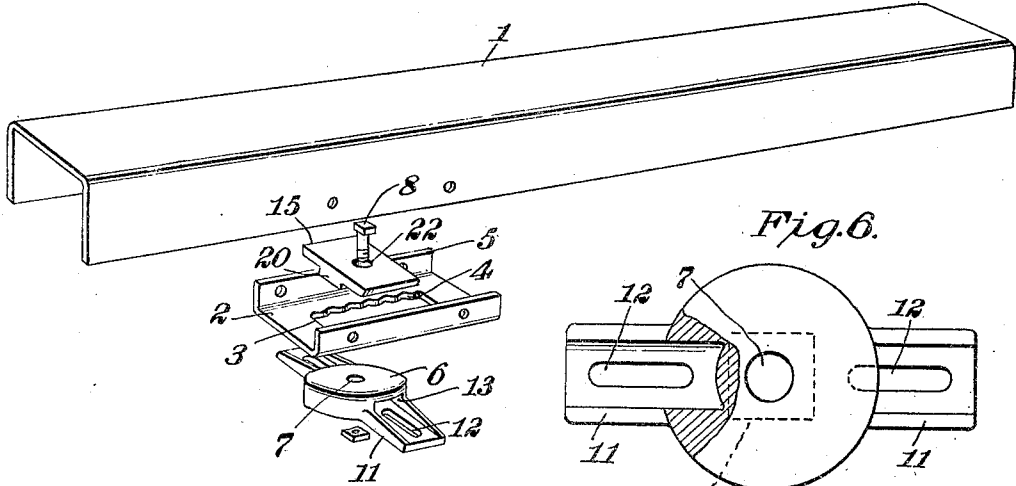


Fig. 6.

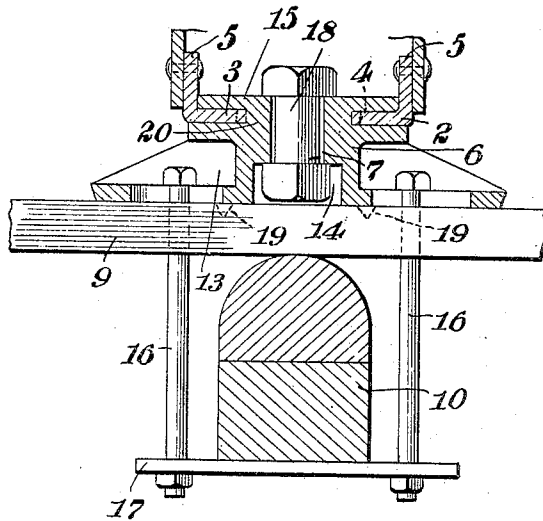
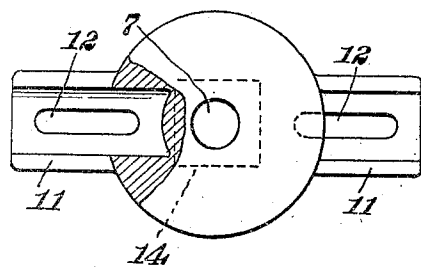


Fig. 4.

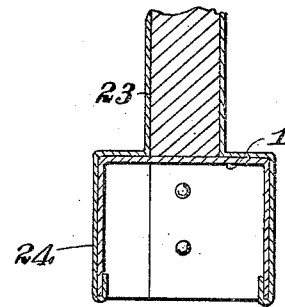


Fig. 8.

Witnesses

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UNITED STATES PATENT OFFICE.

FREDERICK W. BLECKLEY, OF HAZLETON, PENNSYLVANIA.

BOLSTER.

946,835.

Specification of Letters Patent.

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Application filed January 5, 1909. Serial No. 470,769.

To all whom it may concern:

Be it known that I, FREDERICK W. BLECKLEY, citizen of the United States, residing at Hazleton, in the county of Luzerne and State of Pennsylvania, have invented certain new and useful Improvements in Bolsters, of which the following is a specification.

This invention appertains to bolsters and more particularly to those that are formed of metal, the purpose being to provide a bolster of channel form and to combine therewith novel fastening means, whereby the bolster may be quickly and firmly attached to the hounds and axle of a vehicle running gear of any make or design without requiring the bolster to be drilled to receive the fastening or securing means or without requiring the provision of specially devised connecting means.

For a full understanding of the invention and the merits thereof and also to acquire a knowledge of the details of construction and the means for effecting the result, reference is to be had to the following description and accompanying drawings, in which:

Figure 1 is a perspective view of a bolster embodying the invention showing the same attached to the rear axle and hounds of a vehicle running gear; Fig 2 is a longitudinal section of the parts shown in Fig. 1; Fig. 3 is a perspective view of the parts separated; Fig. 4 is a transverse section on the line $x-x$ of Fig. 2 showing the parts on a larger scale; Fig. 5 is a perspective view of the bolster seat; Fig. 6 is a top plan view of the bolster seat, a portion being broken away; Fig. 7 is a detail view of the lock plate; Fig. 8 is a sectional view of an end portion of the bolster on the line $y-y$ of Fig. 2 looking to the right.

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.

The bolster 1 is of channel form and is arranged with the open side facing downward and may be of any construction and formed in any manner, either by being rolled, cast or constructed of plate metal cut to the required size and having longitudinal edge portions bent about at a right angle to form the top and side flanges.

Tie plates 2 are fitted to end portions of the bolster and are secured in any substantial way to the side flanges thereof. The tie plates are located near the ends of the bolster

and are formed with longitudinal slots 3 whose opposite edges are notched to provide teeth 4. Flanges 5 along the edges of the tie plates enter the open side of the bolster and lie against the inner walls of the side flanges thereof and are secured thereto by rivets, bolts or like fastening means. The tie plates connect the flanges of the bolster and brace and strengthen the same, as will be readily apprehended.

Bolster seats 6 form supports for the bolster which rests thereon. The bolster seats are of circular form preferably and are provided with central openings 7 through which bolts 8 pass to connect the several parts when assembled. The hounds 9 are usually confined between the bolster seats and the axle 10, the bolts 8 passing through the several parts to join the same when properly positioned. The upper sides of the bolster seats are flat to receive the lower sides of the tie plates 2 which rest thereon, thereby admitting of the parts 2 and 6 having a relative axial movement according to the spread or distance apart of the hounds with the result that the connecting means between the bolster, hounds and axle may be easily and quickly adapted to existing conditions. In order that the bolster seats 6 may be susceptible of a wide range of application they are provided at opposite points with off-standing lugs 11 which are recessed in their upper sides to form seats to receive either the heads of bolts or the nuts coöperating therewith. Longitudinal slots 12 are formed in the offstanding lugs 11 to admit of the bolts being adjusted according to the width of the axle to which the bolster seat is secured. Recesses 13 extend into the edges of the bolster seats to provide for an increased range of adjustment of the bolts without having the lugs 11 of unusual length. A recess 14 is formed in the lower side of each bolster seat and is adapted to receive either the head or the nut of a bolt employed when connecting the bolster seat to the bolster alone.

When the invention is used in connection with wooden axles or axles having vertical openings formed therein to receive bolts 8, the latter pass through the axle, the hounds, bolster seat, tie plate and lock plate 15, as indicated most clearly in Fig. 1. When the invention is adapted to metal axles, bolts 16 pass through the slots 12 formed in the lugs 11 of the bolster seats and through yokes 17 arranged beneath the axle. A short bolt 18

passes through the opening 7 of each bolster seat and through the tie plate and the lock plate. This is shown most clearly in Fig. 4. Projections 19 are formed upon the lower
 5 side of the bolster seats and bite into the hounds or other part upon which the bolster seats may be placed, so as to prevent slipping.

The lock plates 15 are placed within the
 10 open side of the bolster and rest upon the tie plates 2 and are formed with projecting portions 20 which enter the slots 3 of the tie plates, the edges of the projecting portions being toothed as at 21 to interlock with the
 15 teeth 4 of the tie plates, so as to prevent longitudinal movement of the parts when in operative relation and secured. Each lock plate has an opening 22 for the passage of the bolts 8 or 18. The opening 22 is ar-
 20 ranged with reference to the teeth 21 of the tie plates, so that upon reversing the tie plates the relative position of the opening 22 will be changed, thereby providing for a nicety of adjustment when adapting the bol-
 25 ster to the hounds of vehicle running gear.

A standard 23 is fitted to each end of the bolster 1 and is provided at its lower end with a box portion 24 which embraces oppo-
 30 site sides of the bolster and closes the end space thereof. The lower edges of the sides of the box portion 24 are bent inwardly and upwardly, as shown at 25, to form flanges adapted to embrace the lower edge portions
 35 of the flanges of the bolster, thereby retaining the standard in place. After the standards have been adjusted upon the bolster, so as to receive the bed or vehicle body between them, they are secured by suitable fastenings
 40 passed through openings formed in the sides of the part 24 and the flanges of the bolster.

A bolster constructed in accordance with this invention is light, strong and durable and being arranged with the open side facing down is not liable to catch moisture
 45 or other foreign matter. Moreover, it may be constructed solely of metal and may be easily and quickly adapted to various makes and styles of running gear without necessitating the formation of openings to receive
 50 fastening bolts. By having the opposing faces of the tie plates and bolster seats flat, said parts may have axial adjustment when adapting the bolster to hounds having a greater or less degree of divergence.

55 Having thus described the invention what is claimed as new is:

1. A bolster having a slotted portion and having the edge portions bordering upon the slot toothed, a lock plate having a pro-
 60 jecting portion to enter the slotted portion of the bolster and formed at opposite edges with teeth to mesh with the toothed portions of the bolster bordering upon the slot formed therein, and means for securing the lock
 65 plate to the bolster, the interlocking teeth

fixing the relative position of the fastening means.

2. In combination a bolster having a portion slotted and toothed along the edges bordering upon the slot, a lock plate having
 70 an opening and provided with a projecting portion toothed along its edges to enter the slotted portion of the bolster and interlocking therewith, and a fastening for securing the lock plate to the bolster and made re-
 75 versible to allow for a nicety of adjustment.

3. A bolster of inverted U-form in transverse section, tie plates housed within the bolster and provided with flanges secured to the interior walls of said bolster near their
 80 free edges to stiffen and brace the same, and fastening means coöperating with the tie plates to connect the bolster to the part supporting the same.

4. In combination a channel bolster ar-
 85 ranged with its open side facing down, tie plates connecting the side portions of the bolster near their lower edges and formed with longitudinal slots, and fastening means adapted to operate in the slots of the tie
 90 plates to connect the bolster to the supporting part.

5. In combination a bolster of substantially U-form in cross section, tie plates having opposite edge portions flanged and arranged to engage the inner walls of the
 95 side portions of the bolster to which they are attached, said tie plates having longitudinal slots and having the edge portions bordering upon the slots toothed, lock plates arranged to engage the upper sides of the tie plates and formed with projecting
 100 portions to enter the slots thereof, said projecting portions being toothed at opposite edges to engage the toothed portions of the tie plates bordering upon the slots, and fastening means coöperating with the lock plates to secure the bolster in the required
 105 position.

6. In vehicle running gear the combination of a bolster and bolster seat, the parts having an axial adjustment and a centrally
 110 disposed fastening for connecting the bolster and bolster seat in the required adjusted position.

7. In vehicle running gear the combination of a channel bolster arranged with its open side facing down, tie plates connecting the side portions of the bolster, bolster seats engaging the lower faces of the tie plates, and fastenings connecting the bolster and
 115 bolster seats by passing through registering openings formed therein.

8. In combination a channel bolster arranged with its open side facing downward, tie plates connecting the side portions of the
 125 bolster and formed with longitudinal slots whose edge portions are toothed, lock plates placed upon the tie plates and having projecting portions to enter the slots thereof and
 130

having said projecting portions toothed at opposite edges to interlock with the toothed portions of the tie plates bordering upon the slots thereof, bolster seats having centrally disposed openings, and fastenings passed through the openings of the bolster seats, tie and lock plates to secure the several parts in an adjusted position.

9. In combination a channel bolster arranged with its open side facing downward, flanged tie plates connecting the lower portions of the side members of the bolster and formed with longitudinal slots having their edge portions toothed, lock plates arranged upon the tie plates and formed with projecting portions toothed at their edges to enter the slots of the tie plates and engage the toothed edges thereof, said lock plates having openings, bolster seats having central openings, and fastenings passed through the bolster seats and the lock plates to connect the parts when assembled in the required located position.

10. In combination a hollow bolster having its lower portion open, a bolster seat extending transversely across the open portion of the bolster and having offstanding lugs formed with longitudinal slots, and means connecting the bolster and seat.

11. In vehicle running gear the combination of a bolster and bolster seat having a vertical opening and offstanding lugs, the latter being formed with slots and provided

with vertically disposed flanges, and the under side of the bolster seat having a recess in line with the vertical opening, and fastenings adapted to pass through the openings of the bolster seat and the slots between the flanges of the offstanding lugs.

12. In vehicle running gear the combination of an axle, a bolster, a bolster seat having offstanding lugs provided with a vertical opening and a recess in its under side in line with the vertical opening, said lugs being provided with spaced vertical flanges and having slots formed therein between said flanges, a single fastening connecting the bolster seat to the bolster, and other fastenings connecting the bolster seat with the axle and passed through the slots between the flanges of the offstanding lugs.

13. In combination a channel bolster arranged with its open side facing downward, and a standard having a lower portion of approximately box form and having the lower edge portions of the sides bent inwardly and upwardly to form flanges arranged to engage the lower edges of the side portions of the bolster when the standard is slipped endwise thereon.

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

FREDERICK W. BLECKLEY. [J. S.]

Witnesses:

JOHN WILHELM,
EDWIN C. CORSON.