A. P. RISSLER.

BEAM FOR BRAKE BEAMS AND BOLSTERS.

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952,581.

Patented Mar. 22, 1910.

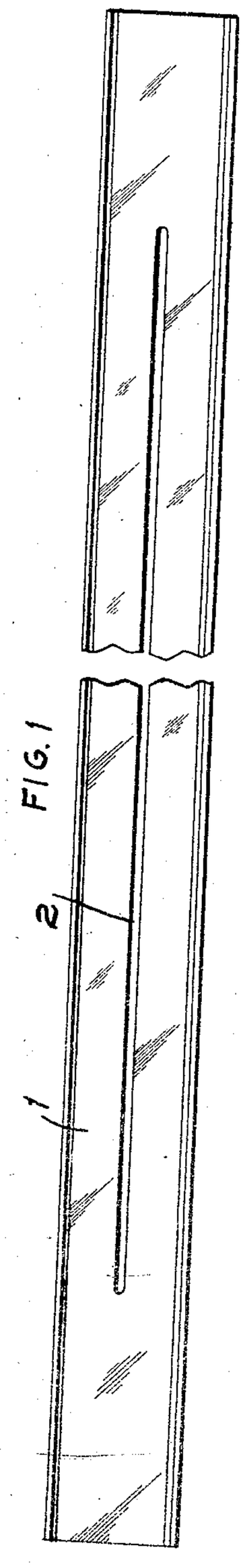

FIG. 1

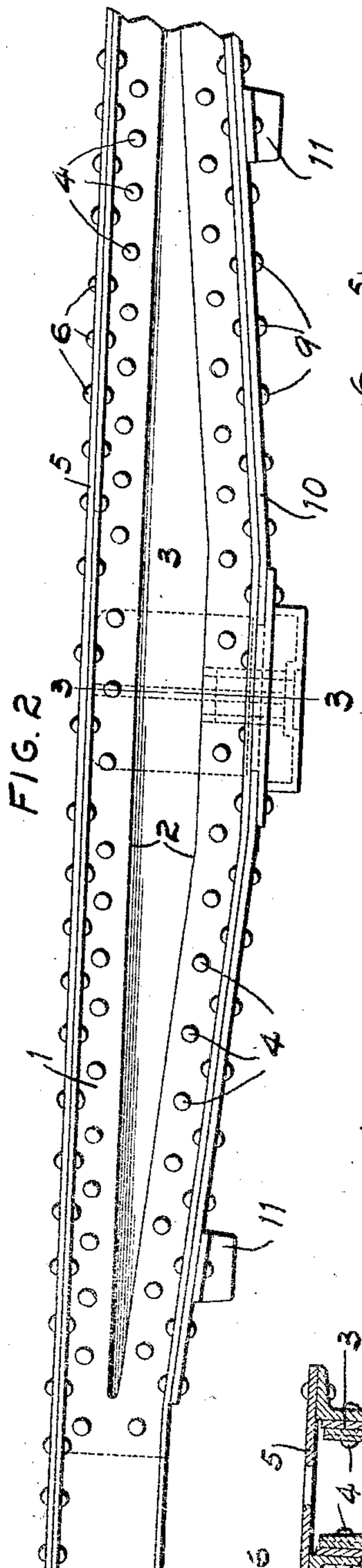

FIG. 2

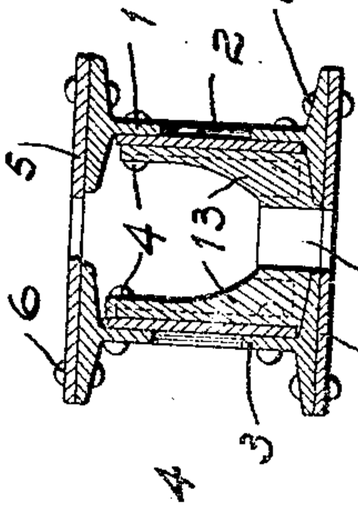

FIG. 4

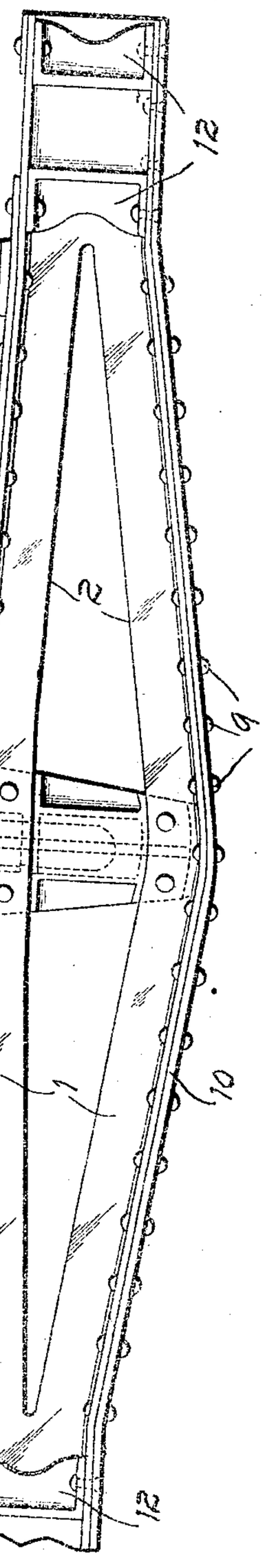

FIG. 5.

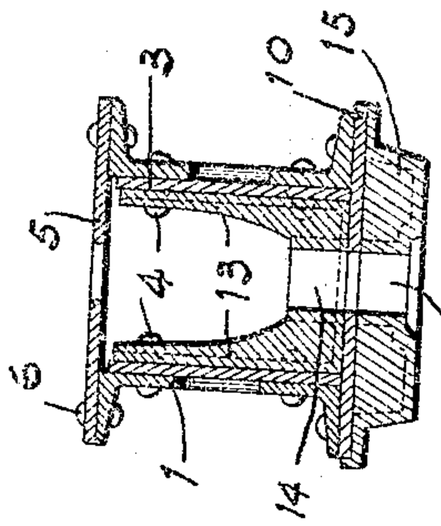

FIG. 3

WITNESSES

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UNITED STATES PATENT OFFICE.

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BEAM FOR BRAKE-BEAMS AND BOLSTERS.

952,581. Specification of Letters Patent. Patented Mar. 22, 1910.

Application filed July 12, 1909. Serial No. 507,111.

To all whom it may concern:

Be it known that I, ALBIN P. RISSLER, a citizen of the United States, residing at Chicago, Illinois, have invented a certain new and useful Improvement in Beams for Brake-Beams and Bolsters, of which the following is a full, clear, and exact description, 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, forming part of this specification, in which—

Figure 1 is an elevation of one of the flanged members of which the body of my improved beam is formed. Fig. 2 is an elevation of a beam to be used as a body bolster. Fig. 3 is a cross section taken on the line 3—3 of Fig. 2. Fig. 4 is a cross section similar to Fig. 3 and showing the body of the beam formed of I-beams. Fig. 5 is an elevation of a beam to be used as a truck bolster.

My invention relates to beams particularly intended for use in connection with brakes, car bodies and the trucks thereof.

The principal object of my invention is to construct a reinforced beam wherein a plurality of flanged members, such as channels or I-beams, are utilized, the vertical webs of which channels or I-beams are slotted and then separated into truss form, and joined to one another by suitable plates and reinforcing members.

A further object of my invention is to produce a reinforced beam of plate-girder construction which will readily withstand sever strain in service, comprises a minimum number of parts, involves comparatively little labor in its construction, and which may be cheaply and easily produced.

To the above purposes, my invention consists in certain novel features of construction and arrangement of parts hereinafter more fully described and claimed.

The main body of my improved beam is formed of a pair of commercially rolled I-beams or channels 1, the vertical webs of which are slotted, as designated by 2, and the portions of the beams or channels above or below the slots are spread apart into truss form. Arranged immediately against the inner faces of the vertical webs of the members 1 are plates 3, the edges of which are fixed to the webs of the I-beams or channels above or below the slots 2 by means of rivets 4 or like fastening devices.

The structure as above described may be used as a brake beam. Where however, a truck or body bolster structure is assured, a plate 5 is arranged on the top flanges of the members 1, and which plate is fixed to said flanges by means of rivets 6 or like fastening devices.

Where a truck bolster is constructed in accordance with my invention, a center bearing 7 is rigidly fixed on top of the central portion of said bolster, and fixed to the top thereof adjacent the ends are side bearings 8.

Arranged beneath the bottom flanges of the members 1 and fixed thereto by means of rivets 9 is a bottom plate 10, and where a body bolster is formed, side bearings 11 are fixed to the under side of the bolster adjacent its ends.

Where a truck bolster is constructed in accordance with my invention, brackets 12 are fixed to the sides of the members 1 adjacent their ends, and which brackets perform the function of column guides.

Positioned at the center of the bolster and fixed thereto by means of rivets, or in any suitable manner, is a center casting 13, through which is formed a vertically disposed aperture 14 adapted to receive the king pin utilized in connecting the body bolster with the truck bolster. Rigidly fixed to the under side of the bolster and at the center thereof is a center bearing 15 provided with an aperture 16 which coincides with the aperture 14. The casting 13 extends from the bottom to the top flanges of the members 1, or from the bottom plate 10 to the top plate 5, thus materially strengthening the central portion of the bolster and a very strong bearing is provided for the king pin.

A beam of my improved construction is exceptionally strong, and therefore particularly adapted to withstand severe strain in service, and as the main parts of the beam are formed of commercially rolled shapes, said beam can be very easily and cheaply produced.

It will be readily understood that minor

changes in the construction and form of my improved beam can be made without departing from the spirit of my invention.

I claim:

1. A structure of the character described, comprising a pair of flanged beams having their webs slotted and spread apart in truss form, top and bottom plates fixed to the top and bottom flanges of the beams, and vertically disposed plates fixed to the webs of the beams and closing the slots in the webs of said beams.

2. A structure of the character described, comprising a pair of flanged beams having their webs slotted and spread apart in truss form, top and bottom plates fixed on to the top and bottom flanges of the beams, vertically disposed plates fixed to the webs of the beams, and closing the slots in the webs of said beams, and a center casting rigidly fixed between the beams and being provided with a king bolt opening.

3. A structure of the character described, comprising a pair of flanged beams having their webs slotted and spread apart in truss form, top and bottom plates fixed to the top and bottom flanges of the beams, vertically disposed plates fixed to the webs of the beams and closing the slots in the webs of said beams, and a center bearing fixed to the underside of the central portion of the bolster and provided with a king bolt opening.

4. A structure of the character described, comprising a pair of flanged beams having their webs slotted and spread apart in truss form, top and bottom plates fixed to the top and bottom flanges of the beams vertically disposed plates fixed to the webs of the beams and closing the slots therein a filler rigidly fixed between the beams and being provided with a king bolt opening, and a center bearing fixed to the under side of the central portion of the bolster and provided with a king bolt opening.

5. A structure of the character described, comprising a pair of flanged beams having their webs slotted and spread apart in truss form, top and bottom plates fixed to the top and bottom flanges of the beams and closing the slots in the webs of said beams, a center casting rigidly fixed within the beam and being provided with a king bolt opening, a center bearing fixed to the underside of the central portion of the bolster and provided with a king bolt opening, and side bearings fixed to the under side of the bolster adjacent its ends.

6. A structure of the character described, comprising a pair of flanged beams having their webs slotted and spread apart in truss form, top and bottom plates fixed to the top and bottom flanges of the beams, vertically disposed plates fixed to the webs of said beams, and a center bearing fixed on top of the central portion of the bolster.

7. A structure of the character described, comprising a pair of flanged beams having their webs slotted and spread apart in truss form, top and bottom plates fixed to the top and bottom flanges of the beams, vertically disposed plates fixed to the webs of said beams and closing the slots in the webs of said beams, and side bearings fixed on top of the bolster adjacent the ends thereof.

8. A structure of the character described, comprising a pair of flanged beams having their webs slotted and spread apart in truss form, top and bottom plates fixed to the top and bottom flanges of the beams, vertically disposed plates fixed to the webs of said beams, a center bearing fixed on top of the central portion of the bolster, the side bearings fixed on top of the bolster adjacent the ends thereof.

9. A structure of the character described, comprising a pair of flanged beams having their webs slotted and spread apart in truss form, top and bottom plates fixed to the top and bottom flanges of the beams, vertically disposed plates fixed to the webs of said beams, a center bearing fixed on top of the central portion of the bolster, side bearings fixed on top of the bolster adjacent the ends thereof, the column guides fixed to the sides of the bolster adjacent the ends thereof.

10. A structure of the character described, comprising a pair of flanged beams having their webs split and spread apart in truss form, top and bottom plates rigidly fixed to the flanges of the beams, and reinforcing plates arranged against the inner faces of the slotted webs of the beams and rigidly fixed thereto.

11. A structure of the character described, comprising a pair of flanged beams having their webs split and spread apart in truss form, top and bottom plates rigidly fixed to the flanges of the beams, reinforcing plates arranged against the inner faces of the slotted webs of the beams and rigidly fixed thereto, and which reinforcing plates extend approximately the entire length of the beams.

12. A structure of the charact described, comprising two flanged beams having their webs split and spread apart in truss form, top and bottom plates rigidly fixed to the flanges of the beams, reinforcing plates arranged against the inner faces of the slotted webs of the beams and rigidly fixed thereto, and a reinforcing block rigidly fixed to the bolster in the center thereof, which block is provided with a king bolt opening.

13. A structure of the character described, comprising two flanged beams having their webs split and spread apart in truss form, top and bottom plates rigidly fixed to the flanges of the beams, reinforcing plates arranged against the inner faces of the slotted webs of the beams and rigidly fixed thereto,

which reinforcing plates extend approximately the entire length of the beams, and a reinforcing block rigidly fixed to the bolster in the center thereof, which block is provided with a king bolt opening.

14. A structure of the character described, comprising two flanged beams having their webs slotted longitudinally and spread apart in truss form, means whereby said beams are rigidly fixed to one another, and reinforcing plates applied to the webs of the beams, which plates entirely close the openings formed by the slots in the webs of said beams.

15. A structure of the character described, comprising two flanged beams having their webs slotted longitudinally and spread apart in truss form, means whereby said beams are rigidly fixed to one another, reinforcing plates applied to the webs of the beams, which plates entirely close the openings formed by the slots in the webs of said beams, and a reinforcing member rigidly fixed on the interior of the bolster at the center thereof.

16. A structure of the character described, comprising two flanged beams having their webs slotted longitudinally and spread apart in truss form, means whereby said beams are rigidly fixed to one another, reinforcing plates applied to the webs of the beams, which plates entirely close the openings formed by the slots in the webs of said beams, a reinforcing member rigidly fixed on the interior of the bolster at the center thereof, and a center bearing fixed on top of the bolster above said reinforcing member.

17. A structure of the character described, comprising two flanged beams having their webs slotted longitudinally and spread apart in truss form, means whereby said beams are rigidly fixed to one another, reinforcing plates applied to the webs of the beams, which plates entirely close the openings formed by the slots in the webs of said beams, a reinforcing member rigidly fixed on the interior of the bolster at the center thereof, and a center bearing rigidly fixed on the under side of the bolster at the center thereof.

In testimony whereof I hereunto affix my signature in the presence of two witnesses, this 26th day of June 1909.

ALBIN P. RISSLER.

Witnesses:
EDWARD T. WALKER,
JOSEPH W. WEINLAND.