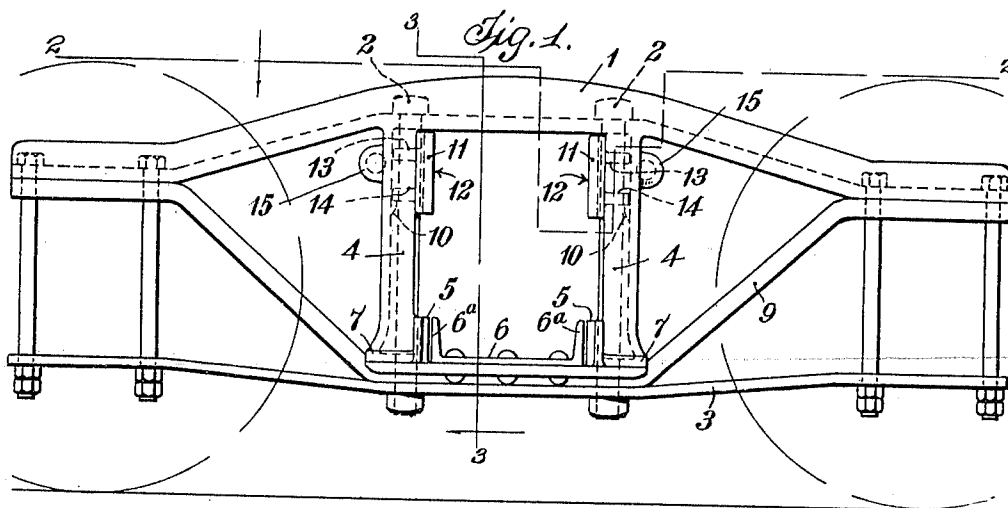
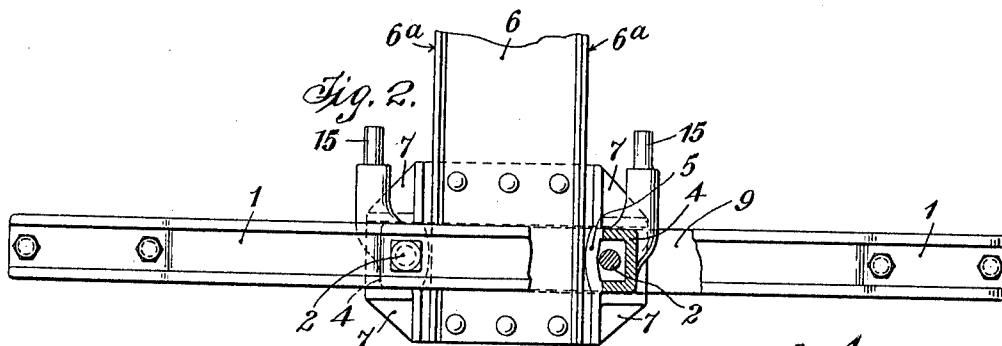
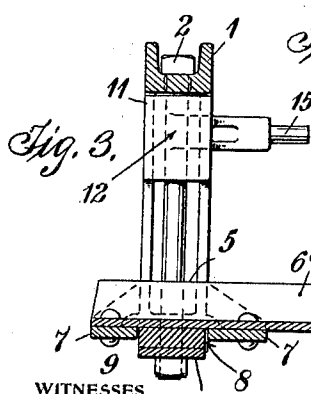
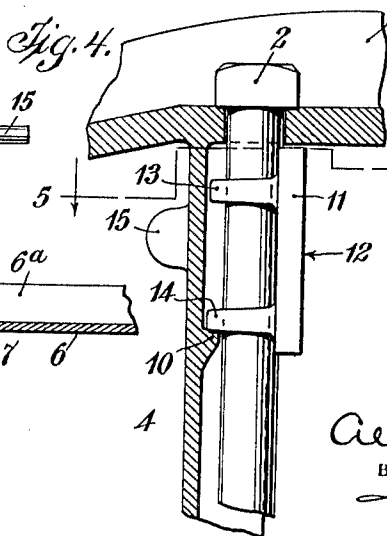
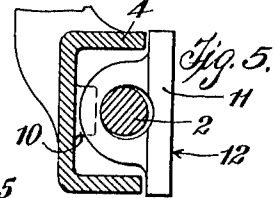
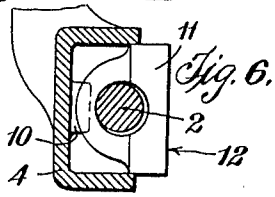


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TRUCK SIDE FRAME.
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1,066,521.

Patented July 8, 1913.



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TRUCK SIDE FRAME.

1,066,521.

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Patented July 8, 1913.

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To all whom it may concern:

Be it known that I, ALLEN E. OSTRANDER, residing at Ridgewood, Bergen county, New Jersey, and being a citizen of the United States, have invented certain new and useful Improvements in Truck Side Frames, 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 to use the same, reference being had to the accompanying drawings, which illustrate the preferred form of the invention, though it is to be understood that the invention is not limited to the exact details of construction shown and described, as it is obvious that various modifications thereof will occur to persons skilled in the art.

In said drawings: Figure 1 represents a side view of a truck frame embodying this invention. Fig. 2 is a plan view partially broken away to illustrate the section and contour of one of the truck columns and also the position of the column bolts and is taken on the line 2—2 of Fig. 1 looking in the direction of the arrow. Fig. 3 is a section on the line 3—3 of Fig. 1 looking in the direction of the arrow. Fig. 4 is a fragmental section illustrating the operating position of the bolster wear plates relatively to the column bolts and column. Fig. 5 is a fragmental section on the line 5—5 of Fig. 4 showing the method of securing the bolster wear plate, and, Fig. 6 is a modification of Fig. 5.

The present invention relates to truck side frames and comprehends in its adaptation the formation of a compression member or top arch bar wherein the columns, brake supports or hangers, spring plank socket and a tension member or bottom arch bar socket are cast as an integer forming a bolster cavity and spring pocket and which with the tie bar are assembled and held in operative position by column bolts. Bolster wear plates are also held in place and carried by the column bolts and are so arranged that a certain play is permitted the wear plates to compensate the stresses of the bolster.

The drawings illustrate but one of the truck side frames, but as each frame and the method of its assemblage are identical, but one need be described.

The top arch bar or compression member 1 is preferably in channel shape with flanges 55 turned upward and formed integral therewith and depending therefrom are the columns 4 which are also in channel shape, the flanges thereof extending inward or toward each other and toward the bolster with the exception of the lower part of the column as at 5 where the column is complete, a web being formed across the flanges thereof, to form side bearings for the flanges 6^a of the spring plank 6. The bottoms or feet of the columns are joined and spread out as at 7 and a groove or socket 8 is provided therein for the reception of the tension member or lower arch bar 9. This broadened portion also affords a bearing and a securing plate 70 for the said spring plank. On the upper portions of the column on the main web thereof are stops 10 (see Fig. 4) adapted to support the lower portion of the bolster wear plates 11. These bolster wear plates 75 are shown particularly in Figs. 4, 5, and 6, are formed with a flat surface 12 abutting the bolster side and with perforated projections 13 and 14 on the opposite side thereof and adapted to receive the column bolts 80 2 and be held in position thereby against the stop 10 and within the columns. The wear plates are designed to protrude into the bolster cavity and spring pocket and to telescope into the columns or bear upon the flanges thereof as may be convenient to the design of bolster used.

It will be observed upon a close inspection of Figs. 4, 5 and 6 that the perforation within the projections 13 and 14 of the bolster wear plates are of greater area than the cross sectional area of the column bolt and that the inner sides of the said projections 13 and 14 are so arranged that there is a slight play between them and the main web 95 of the column. It will also be observed that there is a slight play between the upper edge of the bolster wear plate 11 and the lower surface of the upper arch bar. The play thus provided is so arranged to compensate either a greater thickness of the bolster or to permit the bolster to have a very slight play within the wear plate. Heretofore in structures of this character the bolster wear plates have been rigidly secured to the columns forming what might

be termed a continuation thereof and were absolutely immovable with the stresses of the bolster and consequently were the bolster too narrow to fit snugly between the wear plates continual hammering of the bolster would tend to split or rupture them and necessitate the insertion of new ones.

The brake hangers 15 are cast integrally with the columns and are of usual form, the tie bars 3 are also of usual form and in the arch bar type of truck frames are fixed to the lower arch bar tension member 9 of the construction by the column bolts.

It will be observed that in car truck frames of the double arch bar type no attempt has been made to cast the upper arch bar, the columns, the spring plank socket and the lower arch bar socket integrally in one piece and to unite both arch bars and the tie bar by means of column bolts; and also that it is a novel construction to form supporting means for the bolster wear plates within the walls or flanges of the columns and secure them in place movably by column guides, both of which facts are of material advantage in the assemblage of car truck frames of this nature.

An advantage of the construction herein described is that the rigid or cast members are always in compression and the rolled members in tension and that both members are fixed together by rolled metal in the form of column bolts capable of adjustment as to the wear of the parts relative to each other.

What I claim is:

1. A car truck side frame comprising as an integer an upper arch bar, columns depending therefrom, a spring plank socket and lower arch bar socket uniting the bottoms of said columns, a lower arch bar fitting the said lower arch bar socket and united to the upper arch bar by column bolts.

2. A car truck side frame comprising as an integer an upper arch bar, columns depending therefrom, a spring plank socket and lower arch bar socket uniting the bottoms of said columns, a lower arch bar fitting the said lower arch bar socket and a tie bar, the said arch bar and tie bar being united to the upper arch bar by column bolts.

3. A truck side frame of the arch bar type comprising an upper and lower arch bar and a tie plate united together by column bolts and bolster wear plates movably carried by said column bolts.

4. A truck side frame of the arch bar type comprising as an integer an upper arch bar, columns depending therefrom, a spring plank and lower arch bar socket, column bolts and bolster wear plates movably carried by said column bolts.

5. A truck side frame of the arch bar type comprising an upper arch bar, columns depending therefrom, a spring plank socket and lower arch bar socket, column bolts and bolster wear plates movably carried within said columns by said column bolts and projecting beyond the walls of said columns.

6. A truck side frame of the arch bar type comprising an upper arch bar in form of a channel section having its flanges turned upward, columns depending therefrom and in form of channel sections, the flanges thereof facing each other, a spring plank socket formed by a web bridging the flanges of the said columns and a lower arch bar socket formed as an integer and together forming a spring and bolster pocket, bolster wear plates loosely fitting between the flanges of said columns, and tie bars all of the said elements being united and carried by suitable column bolts.

7. A truck side frame of the arch bar type comprising an upper arch bar, columns depending therefrom and partially cut away at their upper portion, a spring plank socket and a lower arch bar socket uniting said columns and bolster wear plates movably carried by said column bolts within the columns and projecting therefrom.

8. In a truck, an integral cast top arch bar and columns, a bottom arch bar and a tie bar of rolled metal, column bolts uniting said parts and a bolster guide removably mounted on said columns and said column bolts.

9. In a truck, an integral cast top arch bar and relatively hollow columns, a bottom arch bar and a tie bar of rolled metal, column bolts uniting said parts and resting in said hollow columns.

10. In a truck side frame, an integral cast compression member comprising a top arch bar and columns, said columns having seats, bolster guides resting on said seats, rolled tension members and column bolts securing said guides in position.

11. In a truck side frame, an integral cast compression member comprising a top arch bar and recessed columns, said columns having seats thereon, bolster guides mounted on said seats and extending within and beyond said columns, rolled tension members, and column bolts extending through said cast and rolled members and securing said guides in position.

12. In a truck side frame, an integrally cast top arch bar and columns each of relatively channel form, a rolled bottom arch bar secured directly to the web of said top arch bar, column bolts uniting said arch bars and bolster guides removably mounted on said columns.

13. In a truck side frame, an integrally cast top arch bar and columns each of rela-

tively channel form, a rolled bottom arch bar secured to the web of said top arch bar, column bolts uniting said arch bars, and bolster guides removably mounted on said
5 bolts and columns.

rockably mounted on said bolts in said col- 10 umns.

In witness whereof I have hereunto set my hand in the presence of two witnesses.

ALLEN E. OSTRANDER.

Witnesses:

FREDERICK H. GIBBS,
HOWARD C. LUNGER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."