C. S. SHALLENBERGER.

ADJUSTABLE COLUMN GUIDE FOR TRUCK SIDE FRAMES.

APPLICATION FILED APR. 15, 1910.

978,946. Patented Dec. 20, 1910.

2 SHEETS—SHEET 1.

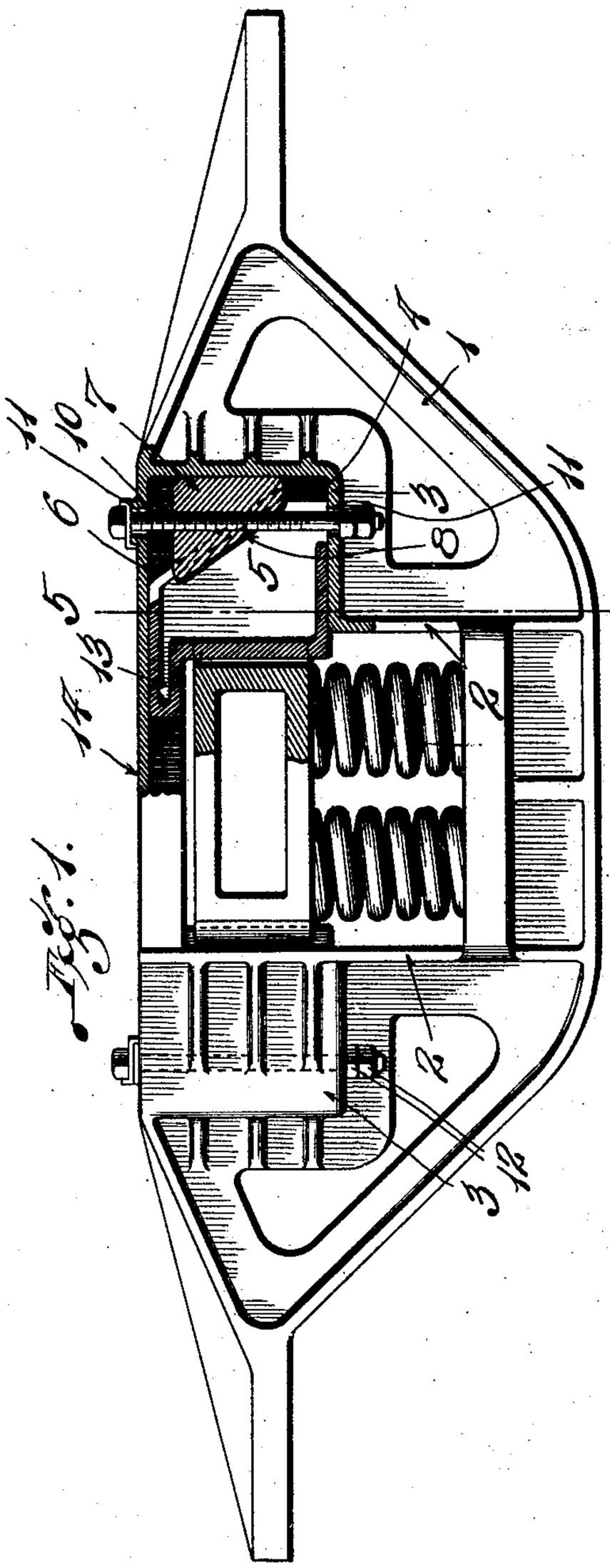

Fig. 1.

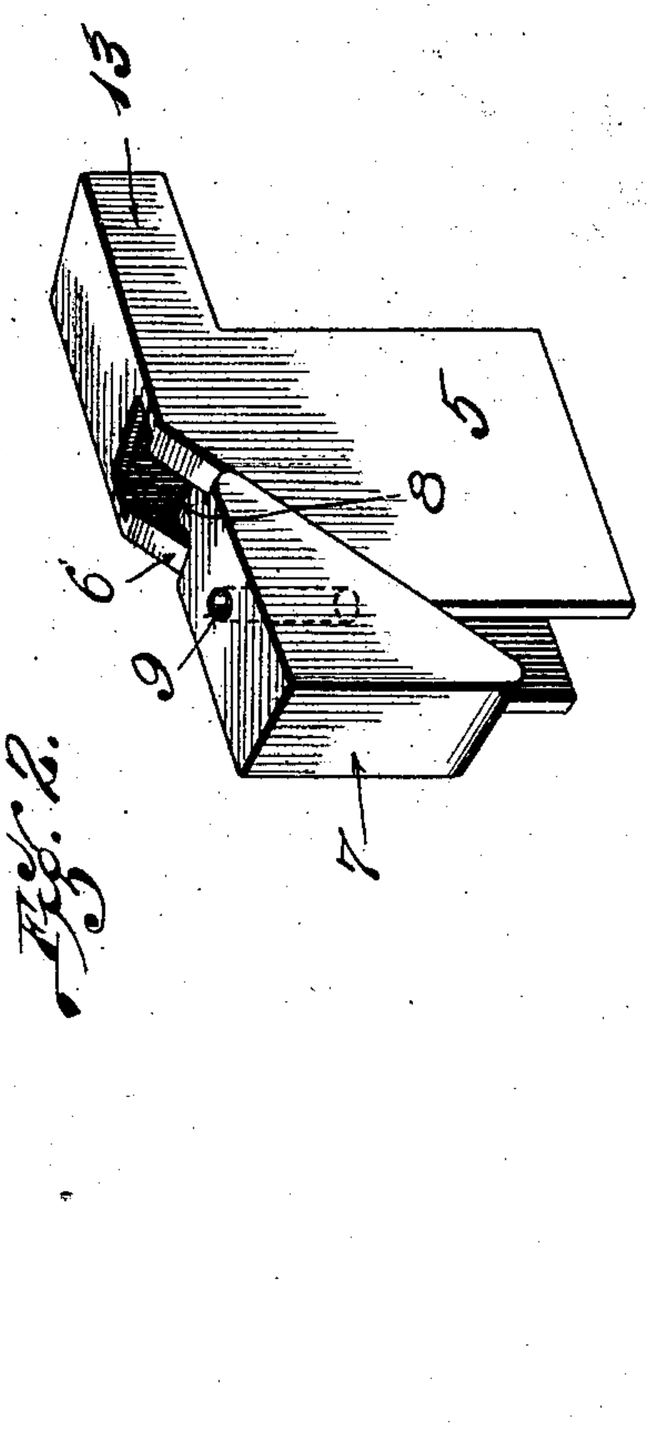

Fig. 2.

WITNESSES.

F. W. Harrington.

Wm. Janus.

INVENTOR.

CHARLES S. SHALLENBERGER.

BY F. R. Carwood & Co. ATTYS.

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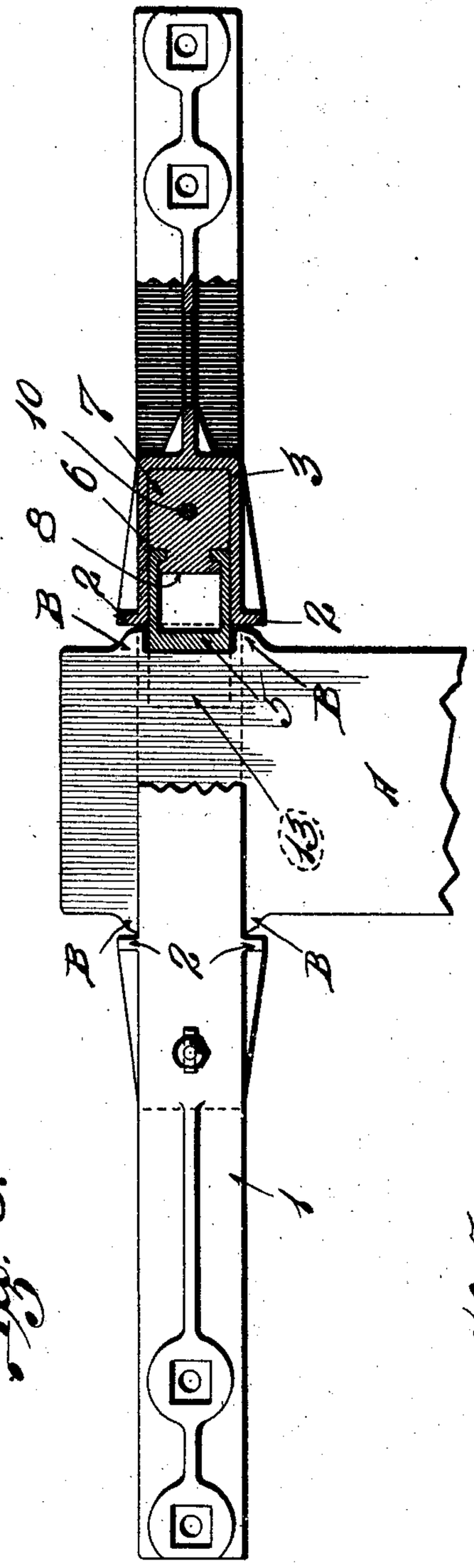

Fig. 3.

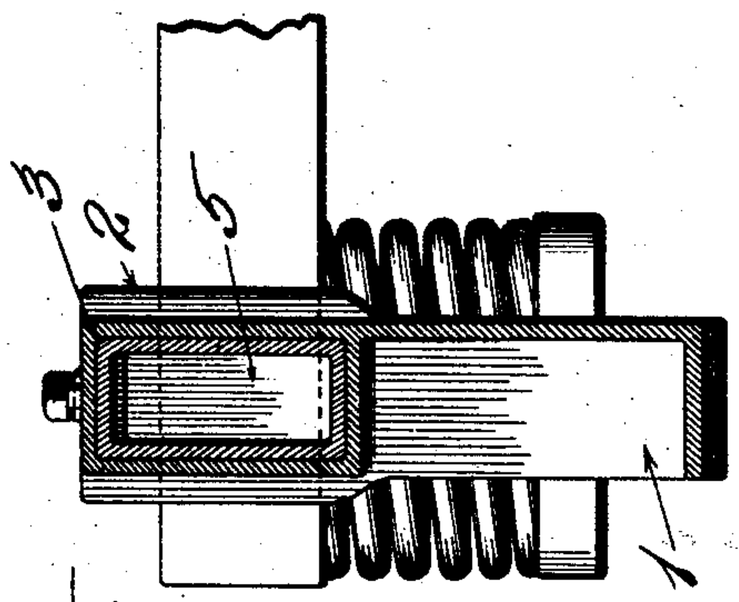

Fig. 5.

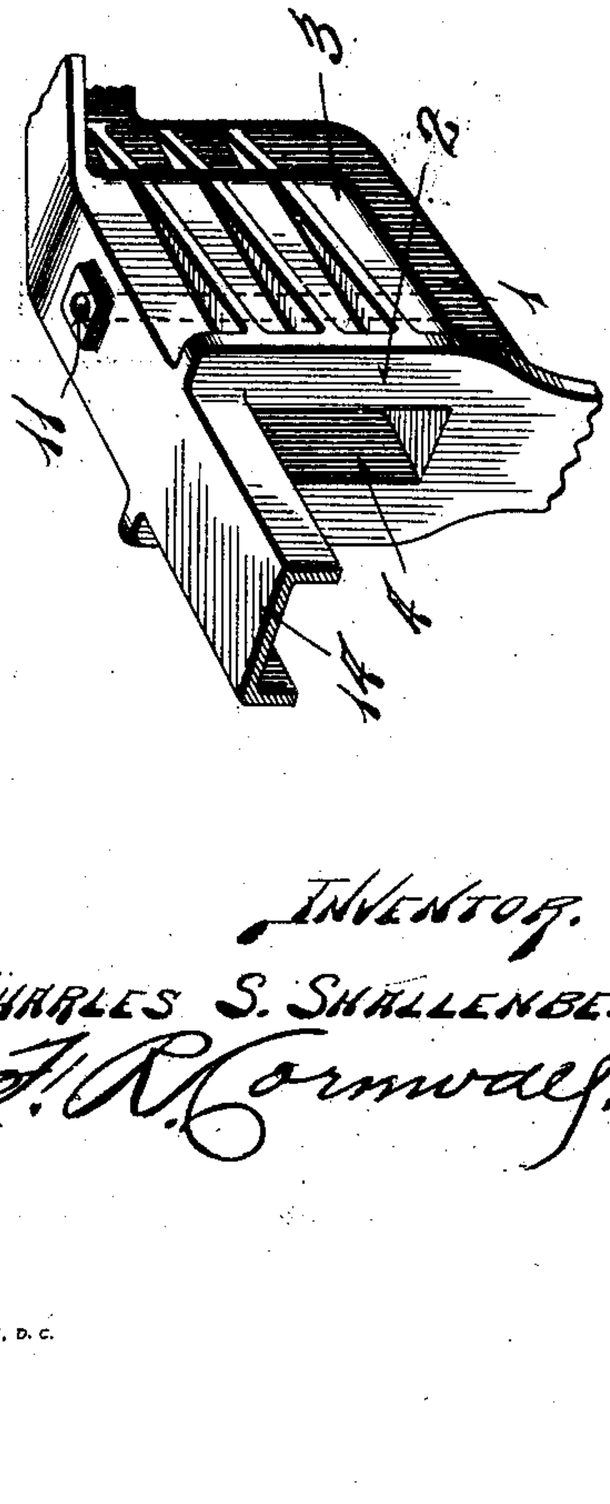

Fig. 4.

WITNESSES.

F. M. Harrington.

Wm. Janus.

INVENTOR.

CHARLES S. SHALLENBERGER.

By F. R. Cornwell. Atty.

UNITED STATES PATENT OFFICE.

CHARLES S. SHALLENBERGER, OF ST. LOUIS, MISSOURI, ASSIGNOR TO CHARLES McLURE CLARK, OF ST. LOUIS, MISSOURI.

ADJUSTABLE COLUMN-GUIDE FOR TRUCK SIDE FRAMES.

978,946. Specification of Letters Patent. Patented Dec. 20, 1910.

Application filed April 15, 1910. Serial No. 555,575.

To all whom it may concern:

Be it known that I, CHARLES S. SHALLENBERGER, a citizen of the United States, residing at St. Louis, Missouri, have invented a certain new and useful Improvement in Adjustable Column-Guides for 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 use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is an elevation partly in section of a truck side frame equipped with adjustable column guides as contemplated by my invention. Fig. 2 is a perspective view of the movable blocks forming the adjustable column guide. Fig. 3 is a plan view partly in section of a truck side frame equipped with the adjustable column guide. Fig. 4 is a perspective view of a portion of a side frame constructed to receive my improved adjustable column guide. Fig. 5 is a vertical section taken approximately on the line 5—5 of Fig. 1.

My invention relates generally to car truck side frames, and more particularly to column guides of a side frame, the principal object of my invention being to provide a side frame with adjustable column guides, which can be readily moved outward or inward to vary the distance between the portions of the column guides against which the truck bolster engages, thereby providing a snug working fit between the side faces of the bolster and the column guides and compensating for any irregularity in the width of the bolster opening in the side frame.

The width of the bolster opening in the side frame must correspond with the width of the end of the bolster which occupies said opening, and very often in forming side frames the width of the bolster opening varies to a considerable degree, due to shrinkage of the metal forming the side frame after casting, or by reason of the improper setting of the pattern or mold, and where the width of the bolster opening varies to a considerable extent, the side frame must be rejected as unfit for service, thereby entailing considerable loss.

It is the purpose of my invention to provide side frames with columns which can be easily and quickly adjusted to and from the side faces of the bolsters, thereby providing a snug fit between the bolster and column guides, and compensating for any space due to wear between the bolster and the columns, and which construction readily permits the bolster and side frame to be easily and quickly assembled or taken apart.

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

Referring by numerals to the accompanying drawings, 1 designates a cast steel side frame of the type usually employed in truck frames now in general use.

2 designates the usual column guides, which form a part of the side frame, and in my improved construction these column guides extend from the lower part of the side frame approximately half way to the top thereof, and formed integral with the upper ends of said columns and with the compression member of the side frame are housings 3, in which are formed pockets 4, the openings into which communicate with the rectangular bolster openings formed in the side frame.

Fitting snugly within each opening and arranged to move forward and backward, is a hollow block 5, which forms the adjustable column guide, and formed on the rear side of this block is an inclined or beveled face 6.

7 designates a triangular-shaped block which is arranged to move vertically in the rear portion of the pocket 4 behind the block 5, and the front or under face of this block 7 is inclined or beveled to correspond with the inclined or beveled face 6 on the block 5. A rib 8 which is T-shaped in cross section is formed on the beveled or inclined face to the block 7 and engages in the opening or slot formed in the corresponding face of the block 5. This construction is essential to bring about a backward or forward movement of the block 5 when the block 7 is moved upward or downward.

The block 7 is provided with a vertically disposed threaded aperture 9 through which passes a threaded rod 10, the same being ar-

ranged to loosely operate in apertures 11 formed through the top and bottom walls of the housing. Nuts 12 are located on the lower end of the threaded rod to hold the same in position and a key or nut lock is located beneath the head of the rod to hold the same against rotation while in normal position.

Formed integral with the front side of the block 5 and at the upper end thereof is a forwardly projecting lug 13 which fits snugly within the inverted channel-shaped compression member 14 forming a part of the side frames, and extending across the top of the bolster opening in said side frame.

A designates the bolster provided with the usual lug B which bears against the column guides. Where adjustable column guides of my improved construction are used it is only necessary to rotate the threaded rods to move the blocks 7 vertically, and the inclined or beveled faces on said blocks engaging the correspondingly inclined or beveled faces on the blocks 5 will move said blocks 5 forward or backward according to the direction of rotation of the threaded rods 10, and thus the front portions of the blocks 5 can be moved toward and away from the side faces of the bolster A. In this manner a very accurate adjustment between the bolsters and the columns can be readily obtained, and bolsters of varying widths may be readily accommodated between the adjustable blocks 5. The blocks 5 are almost wholly positioned within the housings 3, and therefore, have ample bearing against the side walls of said housing to resist all end thrust of the bolster, and the blocks 5 bearing against the blocks 7 and said last mentioned blocks bearing against the rear end walls of the housings 3 readily resist all lateral thrust and strains imparted to the bolster.

Column guides of my improved construction can be readily adjusted, are comparatively simple, accommodate various widths of bolsters in the bolster openings of the side frames equipped with the adjustable column guides, and the labor and expense incident to the formation of a bolster opening of an exact size is done away with.

It will be readily understood that minor changes in the form and construction of the various parts of my invention may be readily made and substituted for those herein shown and described without departing from the spirit of my invention.

I claim:

1. The combination with a truck side frame having a hollow upper chord, of movable column guides whereby the width of the bolster opening may be varied, portions of which column guides occupy the hollow upper chord.

2. The combination with a truck side frame having a hollow upper chord, of adjustable column guides, portions of which are adapted to project into the bolster opening, and portions of which column guides occupy the hollow upper chord.

3. The combination with a truck side frame having a hollow upper chord, of adjustable column guides, portions of which column guides occupy the hollow upper chord, and means whereby said column guides are locked after adjustment.

4. The combination with a truck side frame, of adjustable column guides, portions of which are adapted to project into the bolster opening of the side frame, means whereby said column guides are moved forward and backward, and which column guides moving means have an interlocking sliding connection with said column guides.

5. The combination with a truck side frame having pockets formed at the sides of the bolster opening, of blocks arranged to move horizontally in said openings, portions of which blocks are adapted to project into the bolster opening, and vertically moving blocks located within the pockets for adjustably positioning the horizontally moving blocks.

6. The combination with a truck side frame having pockets formed at the sides of the bolster opening, of blocks adjustably seated in said pockets, portions of which blocks project into the bolster opening, vertically moving blocks engaging the rear sides of the first mentioned blocks into and out of the bolster opening and there being an interlocking sliding connection between each pair of blocks.

7. The combination with a truck side frame having pockets formed at the sides of the bolster opening, of blocks adjustably seated in said pockets, portions of which blocks project into the bolster opening, vertically moving blocks engaging the rear sides of the first mentioned blocks into and out of the bolster opening there being an interlocking sliding connection between each pair of blocks, and means for adjusting the positions of the vertically moving blocks.

8. A truck side frame having an opening formed at the side of the bolster opening, a horizontally moving block in said opening which block is provided on its rear portion with an inclined face, and a block arranged for vertical movement in the opening and normally against the inclined face on said first mentioned block.

9. A truck side frame having a pocket formed at the side of the bolster opening, a horizontally movable block in said pocket, which block is provided on its rear side with an inclined face, a block adapted to move vertically in the pocket, which block bears against the inclined face of the first mentioned block, and means whereby the second

mentioned block is moved vertically within the pocket.

10. A truck side frame having a pocket formed at the side of the bolster opening, a horizontally movable block in said pocket, which block is provided on its rear side with an inclined face, a block adapted to move vertically in the pocket, which block bears against the inclined face of the first mentioned block, and means passing through the second mentioned block for moving the same vertically.

In testimony whereof I hereunto affix my signature in the presence of two witnesses, this 6th day of April, 1910.

CHARLES S. SHALLENBERGER.

Witnesses:
M. P. SMITH,
L. A. CORRAO.