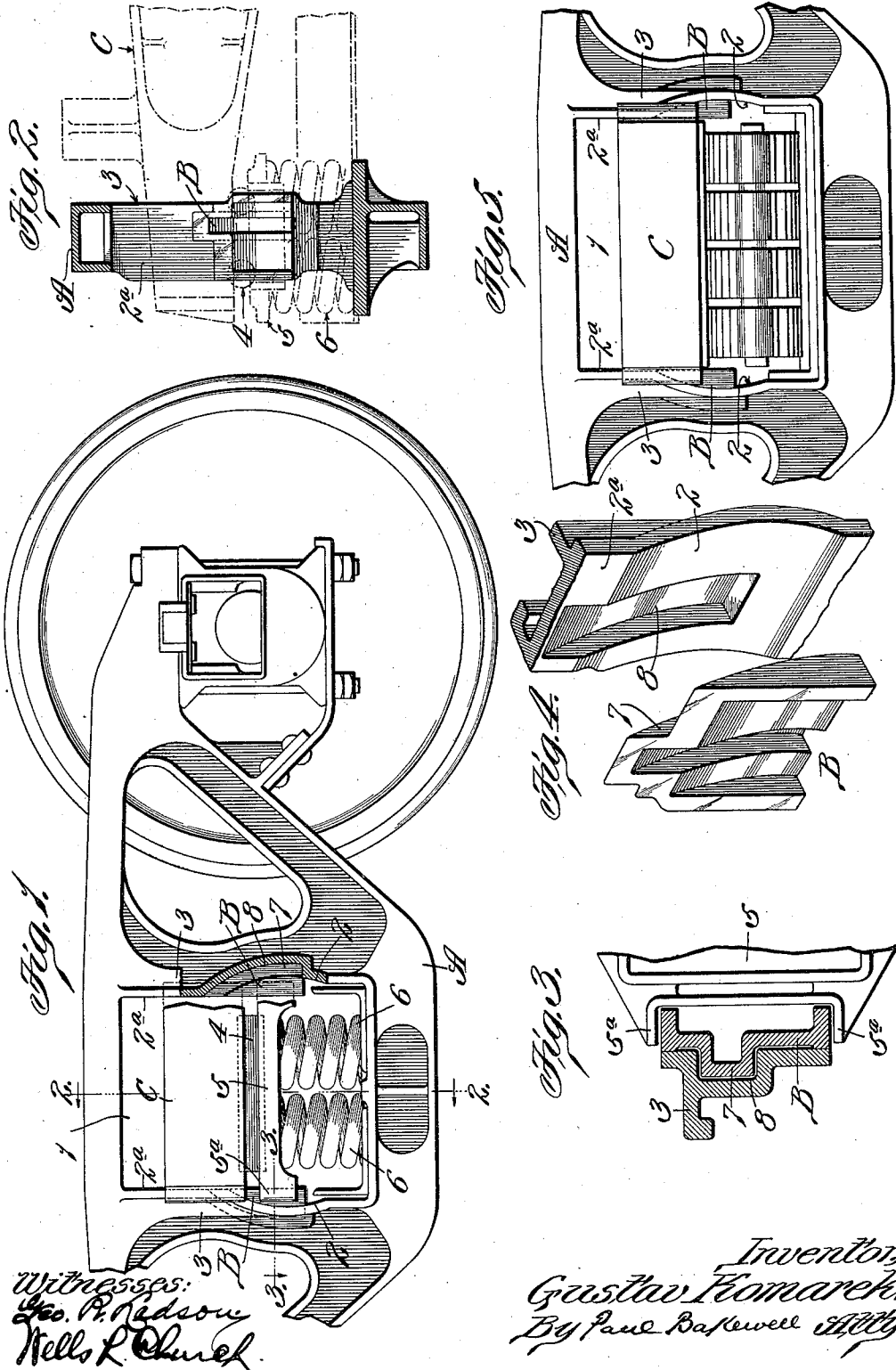


G. KOMAREK.
CAR TRUCK SIDE FRAME.
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1,014,067.

Patented Jan. 9, 1912.



Witnesses:
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UNITED STATES PATENT OFFICE.

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CAR-TRUCK SIDE FRAME.

1,014,067.

Specification of Letters Patent.

Patented Jan. 9, 1912.

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To all whom it may concern:

Be it known that I, GUSTAV KOMAREK, a citizen of the United States, residing at St. Louis, Missouri, have invented a certain new and useful Improvement in Car-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.

This invention relates to car truck side frames, and particularly to cast metal side frames of the type in which the bolster opening has an enlarged portion that permits the bolster to be inserted and removed easily.

One object of my invention is to provide a side frame of the type referred to which comprises roller bearing devices that cooperate with the springs which support the bolster.

Another object is to provide a cast metal side frame of a certain type hereinafter described which is so constructed that a relatively wide bolster can be used with same. And still another object is to provide a cast metal side frame having bolster columns which consist of integral portions on the side frame, removable members that form continuations of the permanent or integral column portions of the side frame, and means of novel form for holding said removable column members in position.

Other objects and desirable features of my invention will be hereinafter pointed out.

Figure 1 of the drawings is a side elevational view of a side frame constructed in accordance with my invention; Fig. 2 is a vertical sectional view taken on approximately the line 2—2 of Fig. 1; Fig. 3 is a horizontal sectional view taken on approximately the line 3—3 of Fig. 1; Fig. 4 is a perspective view of one of the removable column members and the integral column of the side frame with which it cooperates; and Fig. 5 is a side elevational view of a side frame constructed in accordance with my invention which is designed to receive a relatively wide bolster such as are used on tender trucks.

I have herein illustrated my invention embodied in a cast metal side frame of the type in which the columns have curved portions intermediate their ends so as to increase the width of the bolster opening at

one point and thus permit the bolster to be inserted in an approximately vertical position and thereafter turned or rotated into its proper horizontal position, but I do not wish it to be understood that my broad idea is limited to a side frame of this exact construction.

Referring to the drawings which illustrate the preferred form of my invention, A designates a cast metal side frame provided with a bolster opening 1 which has an enlarged portion intermediate its top and bottom edges so as to permit a bolster provided with integral column guides to be inserted and removed easily. The enlarged portion of the bolster opening is produced by curved portions 2 on the integral columns 3 of the side frame, said curved portions being so formed that the bolster can be inserted in the bolster opening in an approximately vertical position and thereafter rotated or turned into its normal horizontal position.

Prior to my invention it was impossible to use roller bearing devices with a side frame of the type above described owing to the fact that the integral columns of the side frame are spaced so far apart at the point where the roller seat member is located that no means is provided for guiding said member or holding it in position. Another objectionable feature of such a side frame is that it could not be used with a relatively wide bolster such as are used on tender trucks because the arc of the curved portions of the integral columns would have to be made so great that the upper straight portions of the integral columns would not be of sufficient area or length to properly guide the bolster.

In order that roller bearing devices may be used with a side frame of the construction above described I have provided the side frame with removable column members B that are arranged in the enlarged portion of the bolster opening 1 and which are so designed that they form continuations of the upper straight portions 2^a of the integral columns 3 that lie above the curved portions 2 of said columns. With such a side frame it is possible to use roller bearings 4 for supporting the bolster C because the removable column members B lie close enough together to engage the roller seat member 5 that is mounted on the bolster-supporting

springs 6 and thus guide said roller seat member and hold it in operative position. The particular shape and details of construction of the removable column members B is immaterial so far as my broad idea is concerned, and it is also immaterial how said members B are connected to the integral columns 3 of the side frame or retained in position, but in a side frame of the type herein shown, namely, one in which the enlarged portion of the bolster opening is formed by curved portions of the integral columns, I prefer to use removable column members B whose rear sides are curved so that they will conform to the curved portions 2 of the integral columns and thus cause the straight front faces of said members B to lie approximately flush with the upper straight portions 2^a of the integral columns. Each of the removable members B is preferably provided on its rear side with a rib 7 that fits in a socket or recess 8 of corresponding shape formed in the front face of the curved portion 2 of the integral column with which said member coöperates and projecting upwardly into the upper straight portion 2^a of said integral column, as shown in Fig. 4, the upper end of the rib 7 tapering to an approximately feather edge, and the upper end of the recess 8 merging into the front face of the upper straight portion 2^a of the integral column so that the members B will be spaced apart approximately the same distance as the upper straight portions 2^a of the integral columns and thus form continuations of same. At the lower ends of the recesses 8 are shoulders on which the lower ends of the ribs 7 rest. The removable column members B preferably extend the full width of the integral columns 3 of the side frame so that the lugs 5^a on the roller seat member 5 will embrace same, as shown in Fig. 3, and they may either be formed solid or of shell construction, the latter form being preferable on account of lightness.

After the bolster C and roller seat member 5 have been inserted in the side frame the removable column members B are arranged in operative position, the coöperating ribs and recesses on the members B and on the integral columns of the side frame preventing said members from dropping downwardly or moving laterally, and the bolster C and roller seat member 5 operating to prevent the members B from moving inwardly away from the integral columns 3 of the side frame. Such a side frame can be used advantageously on a tender truck or any other type of truck which requires a relatively wide bolster, as shown in Fig. 5 for the removable column members B form extensions of the upper straight portions 2^a of the integral columns and thus produce

columns which are of sufficient length and area to properly guide the bolster.

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

1. A car truck provided with a cast metal side frame having a bolster opening provided with an enlarged portion, removable column members arranged in the enlarged portion of said bolster opening which form continuations of the upper straight portions of the integral columns of the side frame, and a roller seat member arranged under the bolster and held in position by said removable column members.

2. A car truck provided with a cast metal side frame having a bolster opening which is provided with an enlarged portion intermediate its upper and lower edges, removable members arranged at the ends of the enlarged portion of the bolster opening so as to form continuations of the sides of the bolster opening that lie above the enlarged portion of the same, and a roller seat member arranged between said removable members and having portions which embrace same.

3. A car truck provided with a cast metal side frame having a bolster opening which is enlarged intermediate its top and bottom edges, removable members on the side frame which are adapted to be arranged in operative position after the bolster has been inserted so as to reduce the width of the enlarged portion of the bolster opening, and a roller seat member arranged under the bolster and provided with lugs which embrace said removable members.

4. A cast metal side frame for car trucks having integral columns which are curved intermediate their ends, the curved portions of said columns being provided with vertically disposed recesses, and removable column members arranged in the curved portions of said integral columns and provided with ribs that fit in said recesses.

5. A cast metal side frame for car trucks having integral columns which are curved intermediate their ends, vertically disposed recesses in the curved portions of said columns whose upper ends merge into the upper straight portions of the columns, removable column members whose rear faces conform to the shape of the curved portions of said integral columns, and ribs on said members which project into the recesses in said integral columns.

In testimony whereof I hereunto affix my signature in the presence of two witnesses, this 28th day of August 1911.

GUSTAV KOMAREK.

Witnesses:

S. S. KNIGHT,

WM. G. BRIDGEMAN.