

G. KOMAREK.
CAR TRUCK.
APPLICATION FILED AUG. 21, 1911.

1,008,721.

Patented Nov. 14, 1911.

Fig. 1.

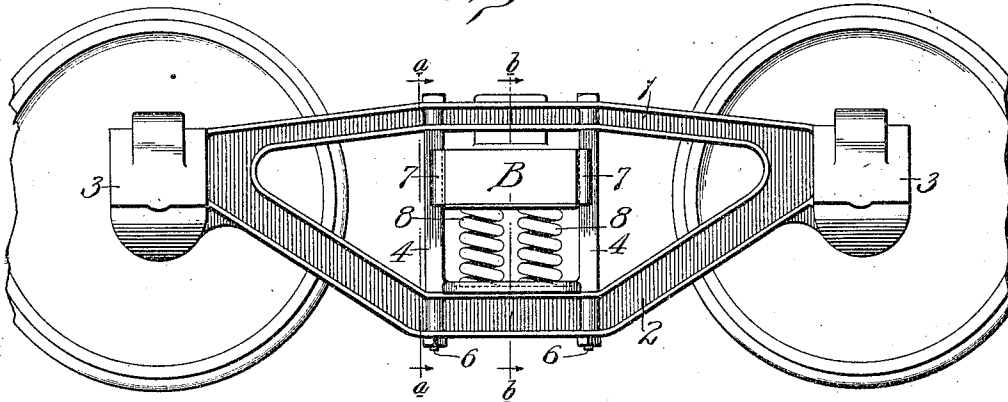


Fig. 2.

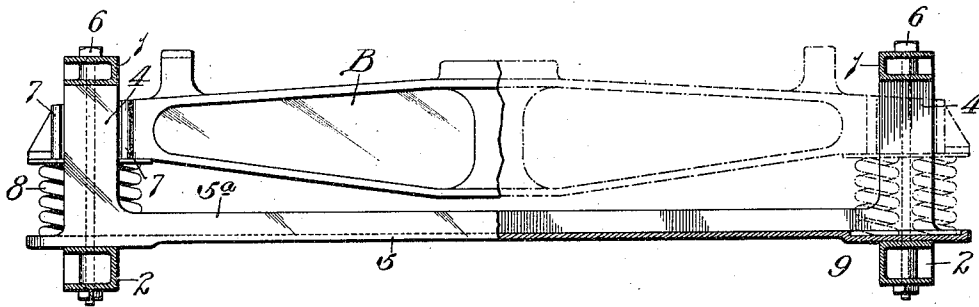
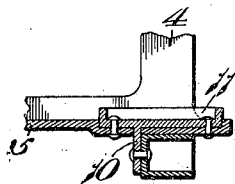


Fig. 3.



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UNITED STATES PATENT OFFICE.

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CAR-TRUCK.

1,008,721.

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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-Trucks, 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 trucks, and particularly to trucks having cast metal side frames.

It has heretofore been the general practice to provide cast metal side frames with integral columns which are so formed that a truck bolster having integral column guides can be slipped endwise into or out of the side frames, the most common construction being a side frame in which the columns are spaced far enough apart at one point to provide a clearance for the integral column guides on the bolster.

The main object of my invention is to provide a car truck having cast metal side frames of novel construction which are so designed that the bolster can be installed and removed easily.

Another object is to provide a car truck of the type referred to that can be manufactured and repaired at a low cost and which is so designed that the parts constituting same cannot become detached accidentally when the truck is in service. And still another object is to provide a car truck consisting of cast metal side frames, and a spring plank lying entirely below the bolster and having integral columns that are detachably connected to the side frames by through bolts, thereby enabling the spring plank, columns, and bolster to be handled as a single unit in assembling the truck or in removing the bolster from the side frames.

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 car truck constructed in accordance with my invention; Fig. 2 is a cross sectional view, the lefthand portion being taken on the line *a-a* of Fig. 1 and the righthand portion on the line *b-b* of Fig. 1; and Fig. 3 is a detail sectional view illustrating a slight modification of my invention.

Referring to Fig. 1 of the drawings which represent the preferred form of my invention, 1 and 2 designate the top and bottom members, respectively, of a cast metal side frame that are formed integral with journal-boxes 3. The columns 4 which are arranged between the top and bottom members 1 and 2 of the side frame, are detachably connected to said members instead of being formed integral therewith. Said columns 4 are formed integral with the spring plank 5 of the truck, which lies entirely below the bolster, and long bolts or other suitable connecting devices 6 are passed through the top and bottom members 1 and 2 of the side frames and through the columns 4 so as to securely connect said parts together, the columns 4 being preferably open on one side and provided with webs through which the bolts 6 pass. By connecting the side frames and columns together in this manner, namely, with long through bolts which pass through the columns, I reduce to a minimum the liability of the columns becoming accidentally detached from the side frames when the truck is in service. The bolster B is provided with integral laterally projecting column guides 7 that embrace the columns 4, and suitable springs 8 are provided for supporting the bolster, the spring plank 5, shown in Figs. 1 and 2, being provided on its top face with recesses 9 that form seats for the springs 8 and also with upwardly projecting side flanges 5^a that are formed integral with the columns 4. By constructing the side frame in this manner I can remove the bolster B easily by simply withdrawing the through bolts 6 and removing the springs 8 and then slipping the spring plank, columns, and bolster B as a single unit, endwise out of the side frames. Such a construction also reduces the labor of assembling the truck for the bolster can be arranged on the spring plank between the columns 4 on said plank and the spring plank thereafter slipped endwise between the top and bottom members 1 and 2 of the side frames, the four through bolts 6 being passed through the top and bottom members of the side frame and through the columns 4 so as to secure all of said parts together.

A truck of the construction above described can be manufactured at a low cost because it consists of practically only three castings, namely, the two side frames and

the spring plank provided with the integral columns; and still another desirable feature of such a construction is the low cost of maintenance, due to the fact that the columns which are subjected to the greatest wear and strains are detachably connected to the side frames and therefore can be replaced without substituting an entire new side frame.

- 10 In case it is desired to reinforce and strengthen the connection between the spring plank and the side frames the spring plank can be provided with depending flanges 10 which bear against the bottom members 2 of the side frames, as shown in Fig. 3, said flanges and bottom members being preferably riveted together. In the construction shown in Fig. 3 the flanges 10 are formed integral with spring seat members 11 and project downwardly through slots in the web of the spring plank but it will, of course, be obvious that the same result could be accomplished in various other ways. With such a construction it will, of course, be necessary to remove the spring seat members 11 to which the depending flanges 10 are connected whenever it is desired to remove the bolster.

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

1. A car truck having cast metal side frames, each of which consists of top and bottom members and journal-boxes that are formed integral with said members, a spring plank provided with integral columns that lie between the top and bottom members of the side frames, and through bolts which pass through said top and bottom members and columns.

2. A car truck having one-piece side frames which comprise top and bottom members and journal boxes integrally connected together, a removable spring plank lying entirely below the bolster of the truck and provided with integral bolster columns that lie between the top and bottom members of the side frames, and a long fastening device passing through the top and bottom members of each side frame and through

each bolster column for securing the spring plank and columns to the side frames.

3. A car truck having side frames, each of which comprises top and bottom members integrally connected together, a spring plank provided with integral bolster columns that are detachably connected to said side frames, and removable reinforcing devices that are detachably connected to said spring plank and to the bottom members of the side frames.

4. A car truck having side frames, each of which comprises top and bottom members integrally connected together, a spring plank provided with integral bolster columns that are detachably connected to said side frames, and removable flanges depending from said spring plank and bearing against the bottom members of said side frames.

5. A car truck having side frames, each of which comprises top and bottom members integrally connected together, a spring plank provided with integral bolster columns that are detachably connected to said side frames, and removable spring seat members provided with depending flanges that project downwardly from the spring seat and engage the bottom members of said side frames.

6. A car truck having cast metal side frames, each of which comprises journal-boxes and top and bottom members integrally connected together, a spring plank provided with integral bolster columns that are arranged between the top and bottom members of the side frames, through bolts which pass through the top and bottom members of the side frames and through said columns for connecting them together, and removable spring seat members provided with flanges that project downwardly through openings in the spring plank and engage the inside faces of the bottom members of the side frame.

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

GUSTAV KOMAREK.

Witnesses:

S. S. KNIGHT,

WM. F. BRIDGEMAN.