April 14, 1936. R. C. KEPNER 2,037,382

RAILWAY CAR CONSTRUCTION

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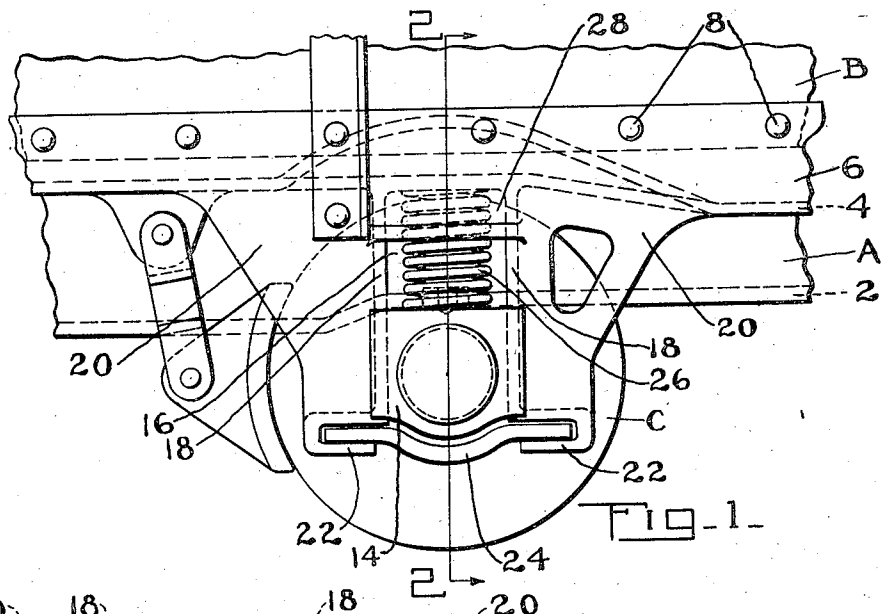


FIG. 1.

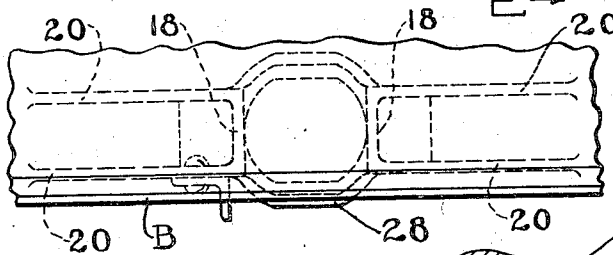


FIG. 3.

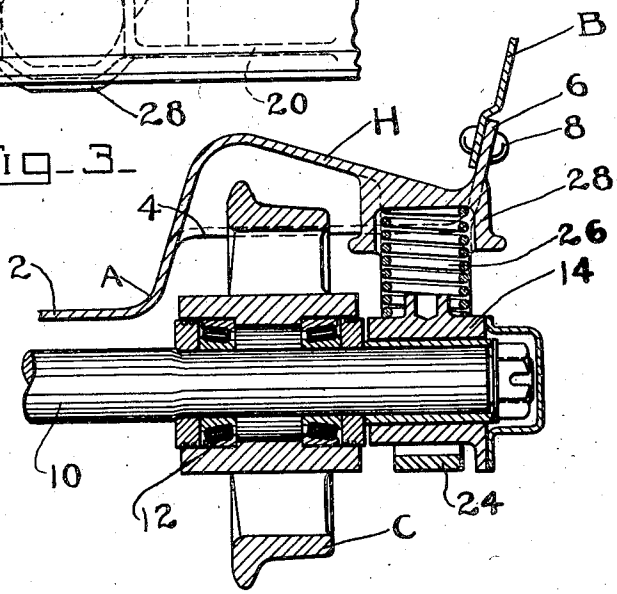


FIG. 2.

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RAILWAY CAR CONSTRUCTION

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8 Claims. (Cl. 105—364)

This invention relates generally to railway cars and has particular reference to car bodies, portions of which are formed as unitary castings.

One object of the present invention is the provision of a new and improved railway car in which the bottom thereof is formed as a unitary casting.

Another object of this invention is the provision of a mine car having a bottom formed as a unitary casting and provided with integral pedestals and spring pockets associated therewith.

Still another object of this invention is the provision of a railway freight car having a unitary cast bottom portion so formed as to provide a central lading supporting portion between the car wheels and in a horizontal plane which intersects the upper portion of the wheels, said unitary cast bottom portion also being provided with integral pedestals and spring pockets associated therewith.

A further object of this invention is the provision of a railway freight car having a bottom portion formed as a unitary casting and comprising a central lading supporting or floor portion between car wheels and in a horizontal plane which intersects the upper portions of the car wheels, said cast bottom portion also including side floor portions in a horizontal plane above that of the central floor portion but which side floor portions are in a plane which intersects the upper portions of the car wheels, said cast bottom portion being provided with integral pedestals and spring pockets and having wheel hoods covering the car wheels.

Other objects and advantages of this invention will be apparent from the following description taken in conjunction with the accompanying drawing, in which

Figure 1 is a side elevation of a portion of a car formed in accordance with the present invention;

Fig. 2 is a sectional view on the line 2—2, Fig. 1, and

Fig. 3 is a top plan view of the portion of the car shown in Figs. 1 and 2.

Referring now more particularly to the drawing which discloses only those parts of a railway car which are necessary for an understanding of the present invention, "A" indicates generally the bottom portion of a mine car and "B" indicates a side wall thereof which is attached to the bottom portion as more clearly described hereinafter.

The bottom "A" comprises a unitary or one-piece casting which is supported adjacent each corner of the car by a wheel "C" and said bottom is so formed as to provide a central lading supporting or floor portion 2 which is arranged between the wheels "C" and in a horizontal plane which intersects the upper portions of said wheels as clearly shown in Fig. 2. The bottom "A" also includes side floor portions 4 which are arranged in a horizontal plane above that of the central floor portion 2, but which also intersects the upper portions of the car wheels as can be seen clearly in Fig. 2. The side edge portions of the car bottom "A" are provided with integral upwardly extending attaching flanges 6 to which the side walls "B" are fastened by means of rivets 8 or other suitable fasteners.

The wheels "C" are mounted on axles 10 and are preferably provided with bearing assemblies 12; the wheels being mounted inwardly relative to journal boxes 14, in which the end portions of the axles 10 are arranged, the journal boxes being mounted in pedestal jaws 16 defined between spaced apart flanges 18 formed integral with and depending from the car bottom "A" and constituting pedestal legs. As clearly shown in the drawing the legs 18 extend transversely relative to the bottom "A" and depend from wheel hoods "H" arranged over the wheels "C" and formed as integral parts of the car bottom "A". The pedestal legs 18 are reinforced by spaced apart flanges 20 which extend longitudinally of the car as clearly shown in Fig. 3 and are formed integral with the car bottom "A". The lower end portions of the legs 18 are formed to provide inwardly facing channel members 22 which support a pedestal tie bar 24. The car bottom is resiliently supported on the journal boxes 14 by journal springs 26 engaging the journal boxes 14 and having their upper end portions arranged within spring pockets 28 formed at the pedestals and integral with the car bottom "A" at the wheel hood portions "H" as more clearly shown in Fig. 2, the spring pockets 28 having their spring seating portions arranged in a plane below the tops of the wheels "C".

The wheel hoods "H", as more clearly shown in Fig. 1, slope downwardly from the highest points thereof towards opposite ends of the car and, as shown clearly in Fig. 2, slope downwardly toward the side edge portions of the car bottom or, toward the upwardly extending attaching flanges 6, thus providing a car of substantially increased lading capacity.

From the above description it is believed that the construction of the car of the present invention will be fully apparent to those skilled in the art. The car bottom "A" includes a central floor portion 2 and side floor portions 4, each of which

is adapted to support lading, said car bottom "A" also having pedestals and spring pockets formed integral therewith, the car wheel "C" being arranged inwardly of the car relative to the pedestals as clearly shown in Fig. 2.

What is claimed is:

1. In a railway car, a car bottom comprising a unitary casting including a central floor portion, side floor portions in a horizontal plane above that of the central floor portion and having wheel hoods formed therein, and pedestals formed within and depending from the wheel hoods and each provided with a substantially centrally arranged spring pocket.

2. In a railway car, a body comprising a unitary cast metal bottom portion formed to provide central and side floor portions, wheel hoods formed with the side floor portions and sloping downwardly toward the side edges of the latter and pedestals formed with the bottom portion at the wheel hoods and each provided with a spring pocket.

3. In a railway car, a body including a unitary cast metal bottom portion comprising central and side floor portions arranged respectively in different horizontal planes, wheel hoods formed with the side floor portions and sloping downwardly toward the side edges of the latter, and pedestals formed with the bottom portion at the wheel hoods and each provided with a spring pocket arranged between the pedestal legs and at the upper end portion of the pedestal jaws.

4. In a mine car, a bottom comprising a unitary casting having wheel hoods sloping downwardly toward the side edges thereof, and pedestals formed with the bottom at the side edge portions thereof and within the wheel hoods and each provided with a spring pocket between the legs thereof.

5. In a mine car, wheels, axles carried by the wheels, journal boxes in which the end portions of the axles are arranged, a unitary cast metal car bottom having a central floor portion in a plane intersecting the upper portion of the wheels and side floor portions in a plane above the central floor portion and provided with unitary hoods covering the wheels, pedestals integral with the cast metal car bottom and arranged within and depending from the wheel hoods and in which the journal boxes are arranged, spring pockets formed with the pedestals, and journal springs interposed between the journal boxes and the spring pockets.

6. In a mine car, wheels, axles carried by the wheels, journal boxes arranged outside the wheels and in which the end portions of the axles are arranged, and a mine car body comprising a unitary cast metal bottom portion having a central floor portion positioned between the wheels and in a horizontal plane intersecting the upper portions of the wheels, and side floor portions in a horizontal plane above that of the central floor portion but which also intersects the upper portions of the wheels, said cast metal bottom portion including wheel hoods formed in the side floor portions and covering the wheels, pedestals depending from the side edge portions of the car bottom within the wheel bodies and arranged outside the wheels and in which the journal boxes are arranged, spring pockets formed with the pedestals, and journal springs arranged in the spring pockets and bearing against the journal boxes.

7. In a mine car, wheels, axles carried by the wheels, journal boxes arranged outside the wheels and in which the end portions of the axles are arranged, a unitary cast metal car bottom having a central floor portion and side floor portions arranged in different horizontal planes but each plane intersecting the upper portion of the wheels, said side floor portions being provided with integrally formed hoods covering the wheels, pedestals cast integral with the car bottom and arranged within the wheel hoods adjacent the side edge portions of the car bottom, spring pockets formed with the pedestals, and journal springs interposed between the journal boxes and the spring pockets.

8. In a mine car, a body, wheels and axles supporting the same, said body being provided with a unitary cast metal bottom having wheel hoods and spring pockets, the latter being arranged adjacent the side edge portions of said bottom and being formed with said wheel hoods, said wheel hoods sloping downwardly and outwardly toward the side edge portions of the bottom and having at least portions thereof above the spring pockets arranged at a level below the highest parts of the wheels.

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