C. H. HOWARD & H. M. PFLAGER.

CAR TRUCK.

APPLICATION FILED FEB. 27, 1908.

899,401. **Patented Sept. 22, 1908.**

Fig. 1.

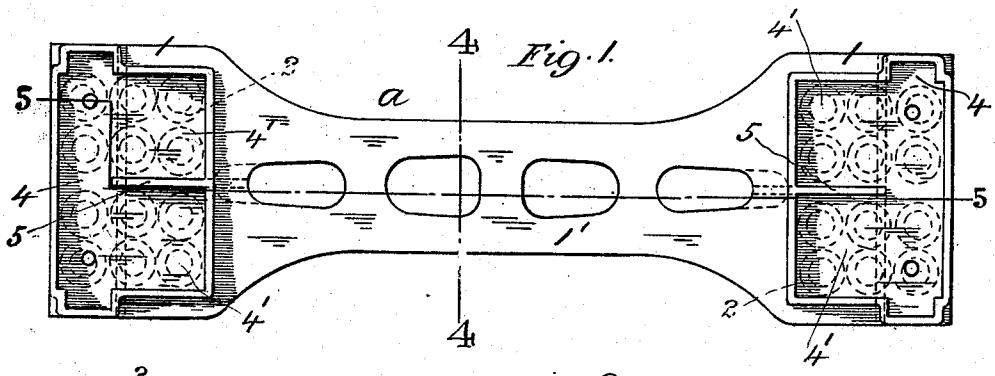


Fig. 2.

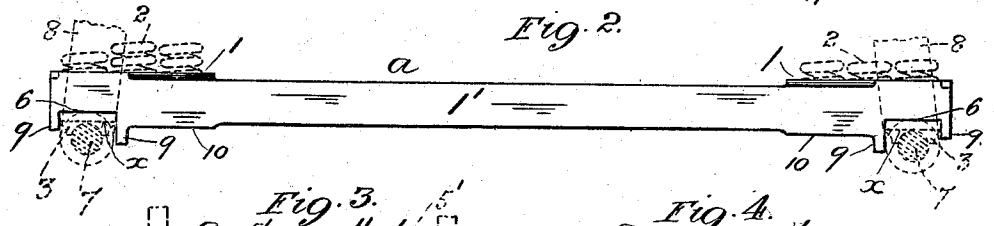


Fig. 3.

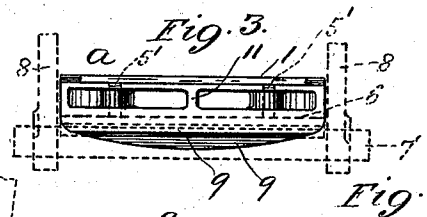


Fig. 4.

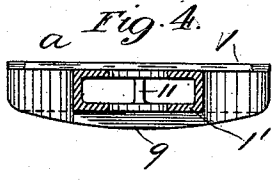


Fig. 5.

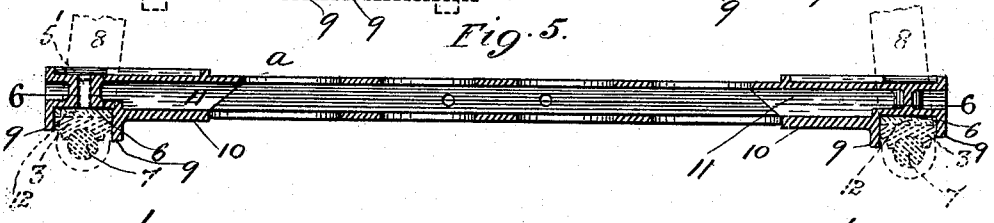


Fig. 6.

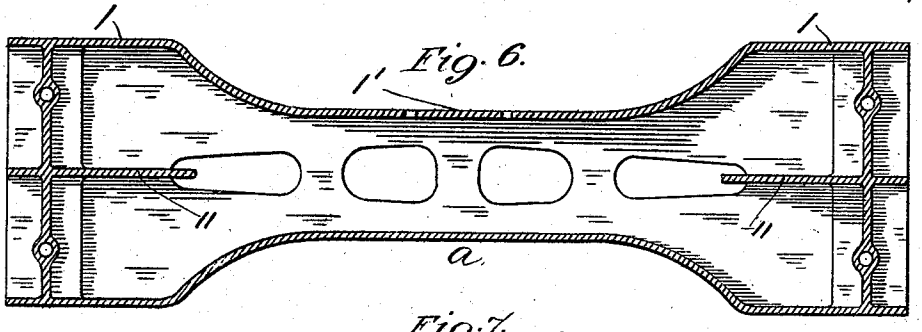
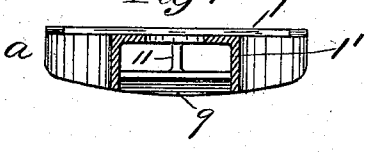


Fig. 7.



Witnesses

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UNITED STATES PATENT OFFICE.

CLARENCE H. HOWARD AND HARRY M. PFLAGER, OF ST. LOUIS, MISSOURI, ASSIGNORS TO DOUBLE BODY BOLSTER COMPANY, OF ST. LOUIS, MISSOURI, A CORPORATION OF NEW JERSEY.

CAR-TRUCK.

No. 899,401. Specification of Letters Patent. Patented Sept. 22, 1908.

Application filed February 27, 1908. Serial No. 418,074.

To all whom it may concern:

Be it known that we, CLARENCE H. HOWARD and HARRY M. PFLAGER, citizens of the United States, residing at St. Louis, in the State of Missouri, have invented a new and useful Improvement in Car-Trucks, of which the following is a specification.

Our invention relates to the spring-plank of a railroad car truck and is particularly applicable to a metallic spring-plank composed preferably of cast steel integral throughout.

Hitherto, when owing to the set of the bearing-springs and other parts, it is necessary to raise the car body for adjusting the coupler to its normal height from the rails, it has been customary to interpose a shim between the car bolsters and their center-plates, and correspondingly between the bolsters and side-bearings, which necessitates lifting the car body until its bearings are sufficiently clear of the truck, and thereby causes delay, and produces undesirable and irregular stresses on the car body in obtaining the necessary purchase for the application of the lifting force thereto, which tends to distort and weaken the framework of the car.

Our invention has for its object to obviate this objection, and to provide a strong, rigid, and durable spring-plank having suitable spring-seats and adapted to be used as means for lifting its superincumbent load uniformly and without disconnecting the parts, whereby the necessary shims may be applied and the height of the coupler adjusted accordingly with ease and rapidity.

The invention consists in features of novelty as hereinafter described and claimed, reference being had to the accompanying drawing forming part of this specification, whereon,

Figure 1, is a top plan view of our improved spring-plank for a railroad car truck; Figs. 2, and 3, a side and end elevation thereof respectively; Fig. 4, a vertical transverse section through the plank on line 4, 4, in Fig. 1; Fig. 5, a vertical longitudinal section through the same on line 5, 5, in Fig. 1; Fig. 6, a horizontal section thereof on line 6, 6, in Fig. 5, and Fig. 7, a view corresponding to Fig. 4, showing a modification thereof.

Like letters and numerals of reference denote like parts in all the figures.

a represents our improved metallic car truck spring-plank, which is preferably, composed of cast steel integral throughout, and in the present case box-shaped in cross section, having its end portions 1 preferably higher and wider than the body 1′ of the plank *a* and adapted to receive the bolster-springs 2 and swing-hanger bearing-blocks 3 as hereinafter more particularly described. Or the spring-plank may be channel-shaped as shown in Fig. 7, or of any other suitable shape in cross section and general configuration as found most desirable in practice.

In the top of each end portion 1 is formed a suitably shaped recess or pocket which is adapted to form a seat or bearing for the lower ends of the corresponding bolster-springs 2, and in the present case is divided into three parts 4, 4′, the part 4 extending lengthwise preferably, the entire width of the end portion 1, and for a suitable width longitudinally to the plank *a* for receiving the bands of the elliptical bolster-springs (not shown) when these are used in lieu of the spiral springs 2 shown, and the parts 4′ opening and extending from the part 4 for a suitable distance transversely and longitudinally to the plank *a*, and separated from each other along the longitudinal center of the latter by a rib or wall 5, the parts 4 and 4′ thus arranged being adapted to receive the spiral bolster-springs 2.

In and across the underside of the plank *a*, preferably, at and adjacent to the end thereof beneath the recess in each end portion 1 is formed a preferably, rectangular slot or recess 6 which is adapted to form a seat for the bearing-block 3 of the lower pins 7 of the swing-hangers 8 (indicated by dotted lines in Figs. 2, 3, and 5,), the bearing-block 3 having preferably, projecting dowel-pins 3′ which in the assembled position of the parts engage in corresponding holes formed therefor vertically through the plank *a* thereat and thereby lock the parts together.

From the underside of the plank *a* along and flush with each side of the slot 6, is formed a depending flange 9 which extends below the bearing-block 3, the flange 9 along one side of the slot 6 preferably, extending lower than the opposite flange 9 for the purpose hereinafter referred to.

The plank *a* on its underside at and adjacent to the inner flange 9 of each slot 6 is thickened, or formed with a horizontal web

or plate 10 which extends preferably, entirely across and unites with the side walls of the plank *a* thereat and is adapted to form a purchase surface for a screw or other lifting jack, the plate 10 being reinforced on the inside preferably along the longitudinal center of the plank *a* by a web 11 which extends vertically between and unites with the plate 10 and the top wall of the plank *a*.

In operation, assuming the car body with its appendages to be assembled and its trucks respectively, equipped with our improved spring-plank *a* suspended in the usual manner from the truck-bolster by the swing-hangers 8 having the bearing-blocks 3 of their bottom pins 7 engaged in the slots 6 of the plank *a*, and it being required to lift the car body with the bolsters and intermediate springs to take up the set of the springs and adjust the coupler to its normal height from the rails, lifting jacks are applied beneath the plate 10 of the plank *a* and the latter with its superincumbent load thereby raised until the bearing-blocks 3, which remain at their original level, are sufficiently clear of the slots 6, and flanges 9 on one side thereof, for the insertion of shims 12 (see dotted lines in Fig. 5) between the bearing-blocks 3 and bottoms of the slots 6, of sufficient thickness for effecting the necessary raising of the parts and adjustment of the coupler; it being here noted that by making the flanges 9 on the inner sides of the slots 6 deeper than the flanges 9 on the opposite sides of the slots 6 from which the shims 12 are inserted, the bearing-blocks 3 are guided and prevented, as the plank *a* is raised, from being displaced laterally from the slots 6 by the swinging tendency of the lower ends of the swing-hangers 8 toward each other, thereby obviating readjustment of these parts thereat and facilitating the operation. But if desired all the flanges 9 may be the same depth, or dispensed with on one side or the other, or altogether. Or the slots 6 may be eliminated and the seats of the bearing-blocks 3 formed directly on the underside of the plank *a* thereat in combination with the flanges 9. Furthermore, if desired the dowel-pins 3′ projecting from the swing-hanger bearings 3 and the holes therefor in the plank *a* may be eliminated and the slots 6 in lieu of extending entirely across the plank *a* as described, closed at each end as indicated by the dotted lines *x* in Fig. 2 for holding the swing-hanger bearings 3 in their assembled position from lateral and end movement within the slots 6.

What we claim as our invention and desire to secure by Letters Patent is:—

1. In a car truck, a metallic spring-plank adapted on its underside near each end thereof to form a seat for the swing-hanger bearing, substantially as described.

2. In a car truck, a metallic spring-plank having a slot in its underside adjacent to each end thereof adapted to confine and form a seat for the swing-hanger bearing, and having a dependent flange along and flush with one side of the said slot, substantially as described.

3. In a car truck, a metallic spring-plank having a slot in its underside adjacent to each end thereof and perforated vertically therethrough, substantially as described and for the purpose set forth.

4. In a car truck, a metallic spring-plank adapted on its underside adjacent to each end thereof to form a seat for the swing-hanger bearing, and having a dependent flange along each side of the said seat, substantially as described and for the purpose set forth.

5. In a car truck, a metallic spring-plank having suitable seats for the bolster-springs and swing-hanger bearings, and having on its underside adjacent to each swing-hanger bearing, a lifting purchase plate integral with the body, substantially as described.

6. In a car truck, a metallic spring-plank adapted on its underside adjacent to each end thereof to form a seat for the swing-hanger bearing and having a dependent flange along each side of the said seat, one of the said flanges projecting beyond the opposite flange, substantially as described and for the purpose set forth.

7. In a car truck, a metallic spring-plank having a recess in the top adjacent to each end thereof adapted to confine and form a seat for the bolster-springs, and having a slot in its underside beneath the said recess adapted to confine and form a seat for the swing-hanger bearing, and the said plank having a dependent flange along each side of the said slot and a lifting purchase plate adjacent thereto, substantially as described.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

CLARENCE H. HOWARD.
HARRY M. PFLAGER.

Witnesses:
H. C. BELLVILLE,
EDWARD W. FURRELE.