

H. S. HART.
TRUCK FRAME.
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1,026,744.

Patented May 21, 1912.

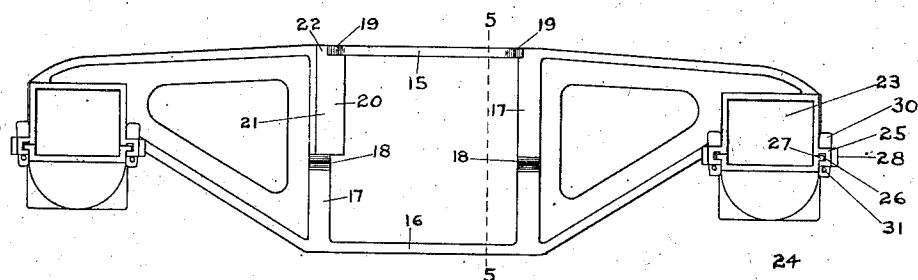


Fig. 1

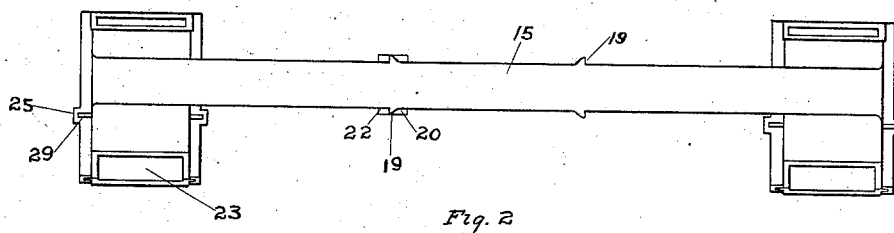


Fig. 2

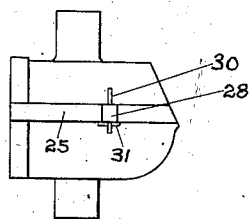


Fig. 3

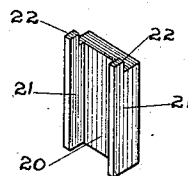


Fig. 4

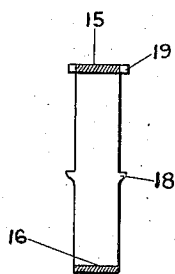


Fig. 5

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UNITED STATES PATENT OFFICE.

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TRUCK-FRAME.

1,026,744.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, HARRY S. HART, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Truck-Frames, of which the following is a specification.

One of the objects of my invention is to provide a car truck side frame having the journal boxes attached thereto in such a way as to properly carry the load and withstand shocks.

Another object is to provide a construction of the journal boxes that shall facilitate putting them together or taking them apart and that shall securely hold them together when desired.

A further object is to provide a side frame for a car truck that shall facilitate placing the end of the bolster in operative relation thereto.

Still another object is to provide a construction that shall hold the bolster end in operative relation to the side frame when it has once been properly placed.

In the drawings—Figure 1 is a side elevation of my improved truck frame. Fig. 2 is a top plan view of the same. Fig. 3 is an end view showing one of the journal boxes. Fig. 4 is a perspective detail of an element. Fig. 5 is a section on the line 5, 5 of Fig. 1.

The reference numeral 23 designates the upper half of each journal box. The walls of this upper half are cast integral with the side frame. The complementary lower half 24 of the journal box is detachable. The bottom edges of the upper half carry two opposite lips 25 each having an inner groove 26. The detachable bottom part 24 carries tongues 27 adapted to engage the grooves 26. The lip 25 is thickened at the point indicated by the reference numeral 28, and thus without loss of strength, room for the keyway 29 is provided. This keyway extends across the tongue 27 as well as the groove 26 and hence the key 30 locks the top and bottom parts 23 and 24 of the journal box together. The key is secured in position by a cotter-pin 31.

The side frame consists of a single casting with certain minor parts detachably annexed thereto. The top arch bar 15, bottom arch bar 16 and the two columns 17 are comprised in this single casting. On each

side of each column 17 are projections or lugs 18 at an intermediate point thereon. At the top of each column 17 where it joins the top arch bar 15 are other lugs 19. A plate 20 is adapted to fit against the inside of each column 17, and it carries flanges 21 which embrace the column and by resting on the lugs 18 support the plate 20. The side flanges 21 are prolonged as at 22 and these prolongations engage the lugs 19 and serve to hold the plate 20 in position against the inner face of the column 17.

The upper half 23 of the journal box is adapted to receive the bearing brass, and through this the weight of the car and the horizontal stresses of starting and stopping are communicated from the side frame to the car axle shaft. The lower part 24 of the journal box holds the lubricant and serves to exclude dirt, but it neither sustains nor transmits any of the load or the shocks due to acceleration or retardation of the car.

In operation a plate 20 is lodged against the inner face of each of the columns 17. For the sake of clearness only one plate is shown in Figs. 1 and 2. When both plates are in place they render the bolster end opening narrower at the top than at the bottom, thus the end of the bolster can be introduced into the bottom part of the opening, then raised so that its flanges will engage the plates 20, and it will be held in this position by introducing the bolster spring above the bottom arch bar 16. When the bolster is in place with its end projecting through the upper part of the opening and its flanges embracing the plates 20, the said plates will be securely held in place. But when the bolster end is dropped to the bottom of the opening the plates 20 can be instantly removed by removing the bottom end of each inward until it ceases to engage the lugs 18, then dropping the plate as a whole until the projections 22 cease to engage the lugs 19. It will be seen that the mode of attachment between the plates 20 and the respective columns 17 is simple, secure and convenient.

I claim:

1. In a car truck side frame, a journal box having the upper part thereof integral with said frame, the lower part having a sliding connection with the upper part.
2. In a car truck side frame, a journal

box having a part thereof integral with the side frame, and another part detachably connected thereto, one part having a tongue and the other part having a groove, the tongue and groove being adapted to coact in uniting the two parts of the journal box.

3. In a car truck side frame, a journal box having two parts separated by a substantially horizontal plane located approximately midway the top and bottom thereof, all of said box above said plane being integral with the side frame, and all of said box below said plane being detachable therefrom, and interlocking means formed integrally with the two parts of the journal box for supporting the lower part of the box.

4. In a car truck side frame, a journal box having the upper part thereof integral with said frame, the lower part having a

sliding connection with the upper part, and means for locking the two parts against a sliding movement.

5. In a car truck side frame, a journal box having the upper part thereof integral with said frame, the lower part being wholly supported by direct engagement with the upper part.

6. In a car truck side frame, a journal box having the upper part thereof integral with said frame, the lower part being wholly supported by the upper part, and means formed integrally with the two parts of the journal box for detachably securing said lower part to said upper part.

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