

No. 775,484.

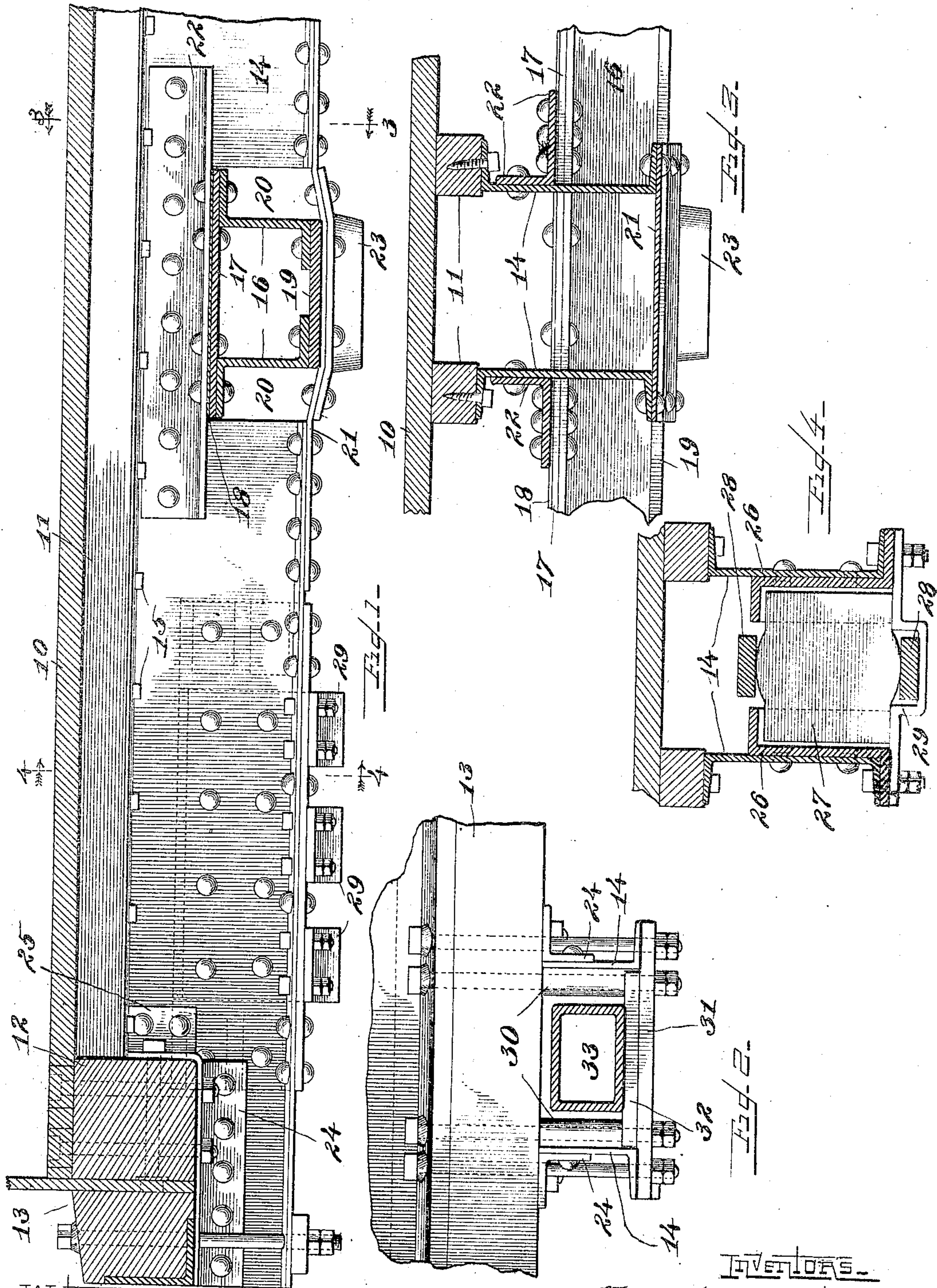
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H. C. WILLIAMSON & H. PRIES.

UNDERFRAMING FOR CARS.

APPLICATION FILED DEC. 12, 1903.

NO MODEL.



WITNESSES.

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# UNITED STATES PATENT OFFICE.

HENRY C. WILLIAMSON AND HERMAN PRIES, OF MICHIGAN CITY,  
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## UNDERFRAMING FOR CARS.

**SPECIFICATION** forming part of Letters Patent No. 775,484, dated November 22, 1904.

Application filed December 12, 1903. Serial No. 184,966. (No model.)

*To all whom it may concern:*

Be it known that we, HENRY C. WILLIAMSON and HERMAN PRIES, citizens of the United States, and residents of Michigan City, county of Laporte, and State of Indiana, have invented certain new and useful Improvements in Underframing for Cars, of which the following is a specification and which are illustrated in the accompanying drawings, forming a part thereof.

This invention relates to metallic underframing for cars, and has for its object the securing of a construction which while having great strength will be of comparatively little vertical thickness, so that the body of the car will not be greatly elevated by its underframing.

The invention consists of the structure hereinafter described and as particularly pointed out in the claim and as illustrated in the accompanying drawings, in which—

Figure 1 is a detail vertical longitudinal section of the bottom of a car, one of the sills being shown in elevation. Fig. 2 is a detail end elevation of the same, partly in section. Fig. 3 is a detail section on the line 3 3 of Fig. 1, and Fig. 4 is a detail section on the line 4 4 of Fig. 1.

The floor of the car is shown at 10 and rests upon stringers 11. One of the end sills is shown at 12, and the dead-wood at 13. A pair of longitudinal draft-sills 14 14 are located near the center of the car. These sills may be of channel form, as shown, one of their flanges serving as seats for the stringers 11, to which they are secured by any suitable means—as, for example, lag-screws 15.

The body-bolster comprises a pair of side members 16, which, as shown, are Z-shaped in cross-section, top plates 17 and 18 resting upon outstanding flanges of the side members and securely riveted thereto, and a bottom plate 19, upon which the intumed bottom flanges of the side members rest and to which they are securely riveted.

The sills 14 are recessed through their bottoms, as shown at 20, to receive the bolster. A plate 21 crosses the recesses and is securely

riveted to the lower flanges of the sills and to the bolster, thereby fully restoring the tensile strength of the sills. An angle-plate 22 is riveted to the side face of each of the sills directly over the aperture 20 and is also riveted to the bolster. The center plate 23 is secured to the plate 21 and to the bolster. This construction provides a perfectly rigid frame of great strength and which occupies a minimum vertical space.

The ends of the sills 14 are recessed from above to receive the end sill 12 and dead-wood 13, for which a suitable chair is provided by means of an angle-plate 24, riveted to the outer face of each sill 14 and bolted to the end sill, the rearward end of this angle-plate being upturned, as shown at 25, so as to lie against the rearward face of the end sill, the vertical leaf of the plate being cut to permit such bending.

Cheek-plates 26 of any desired form are secured to the inner faces of the sills 14. A follower, forming a part of the draft-rigging, is shown at 27 and the tail-strap of the draw-bar at 28, suitable chairs 29 being secured to the sills 14 to support the followers and strap. Chafing-thimbles are shown at 30, one on each side of the draw-bar 33. The carry-iron is shown at 31 and wear-plate, upon which the draw-bar rests, at 32.

As both ends of the car are preferably alike, we have deemed it necessary to show but one end and one bolster. The outer ends of the bolster are not shown, as they may be finished in any desired manner.

We claim as our invention—

In an underframe for cars, in combination, a bolster comprising top and bottom plates and side plates rigidly secured together, sills recessed to receive the bolster, the bolster and sills being secured together, and reinforcing-plates crossing the sill-apertures below the bolster.

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Witnesses:

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