

No. 776,579.

PATENTED DEC. 6, 1904.

H. C. WILLIAMSON & H. PRIES.

UNDERFRAMING FOR CARS.

APPLICATION FILED SEPT. 24, 1904.

NO MODEL.

2 SHEETS—SHEET 1.

Fig. 1.

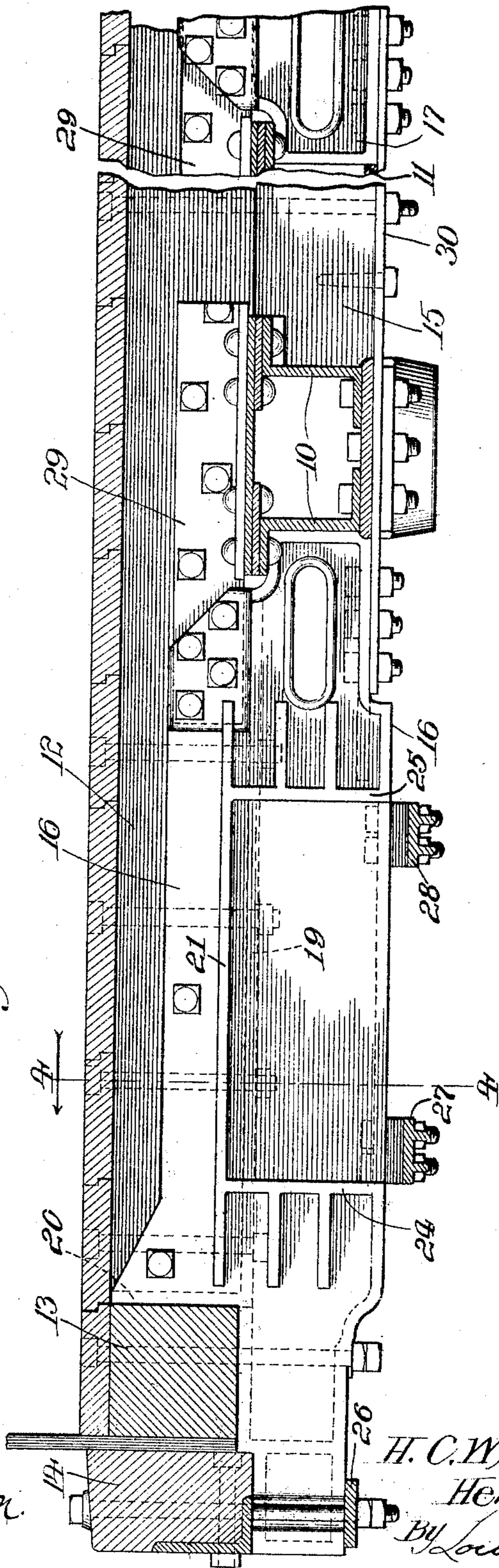
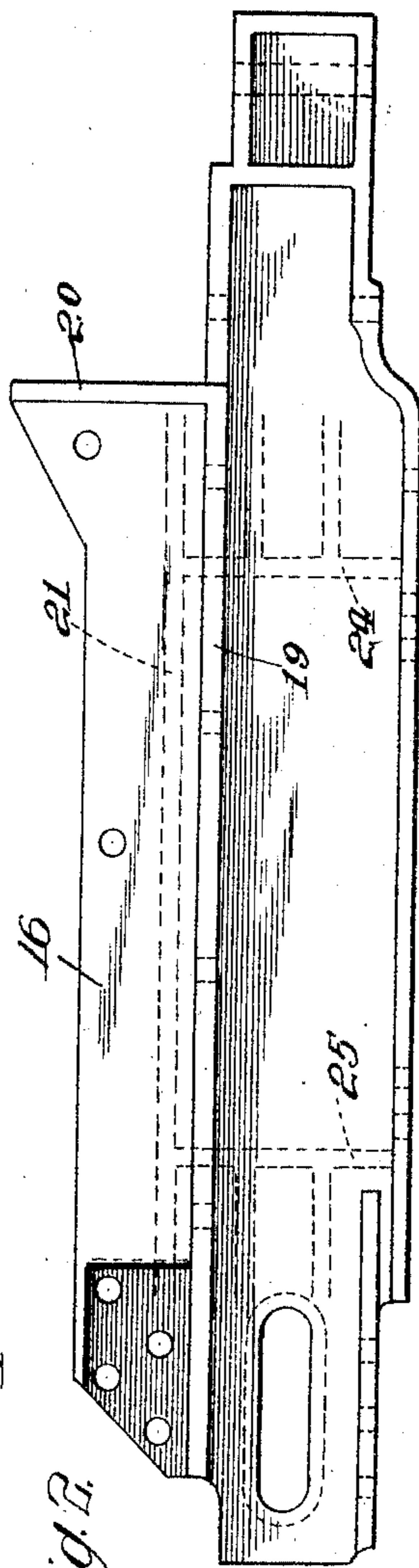


Fig. 2.



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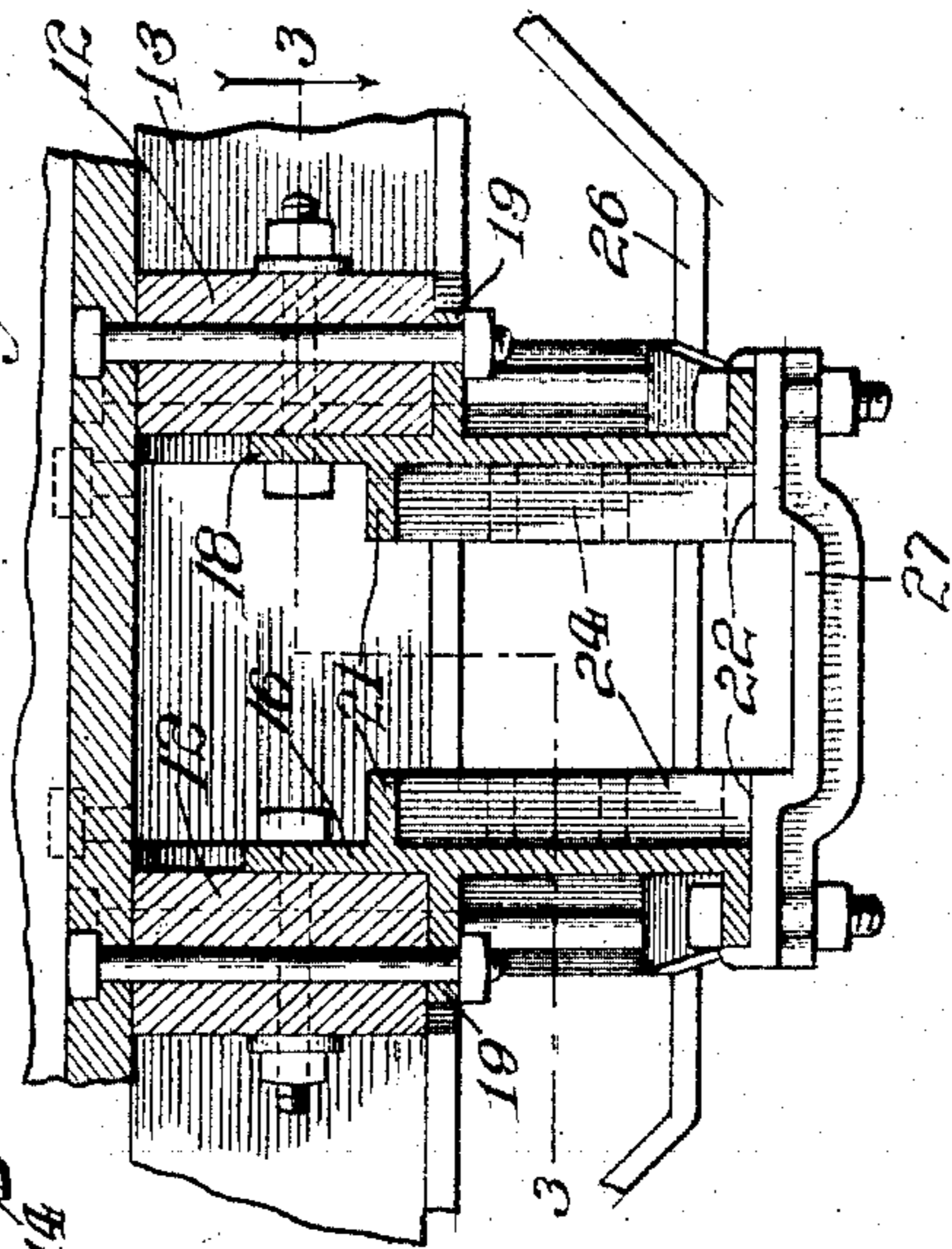
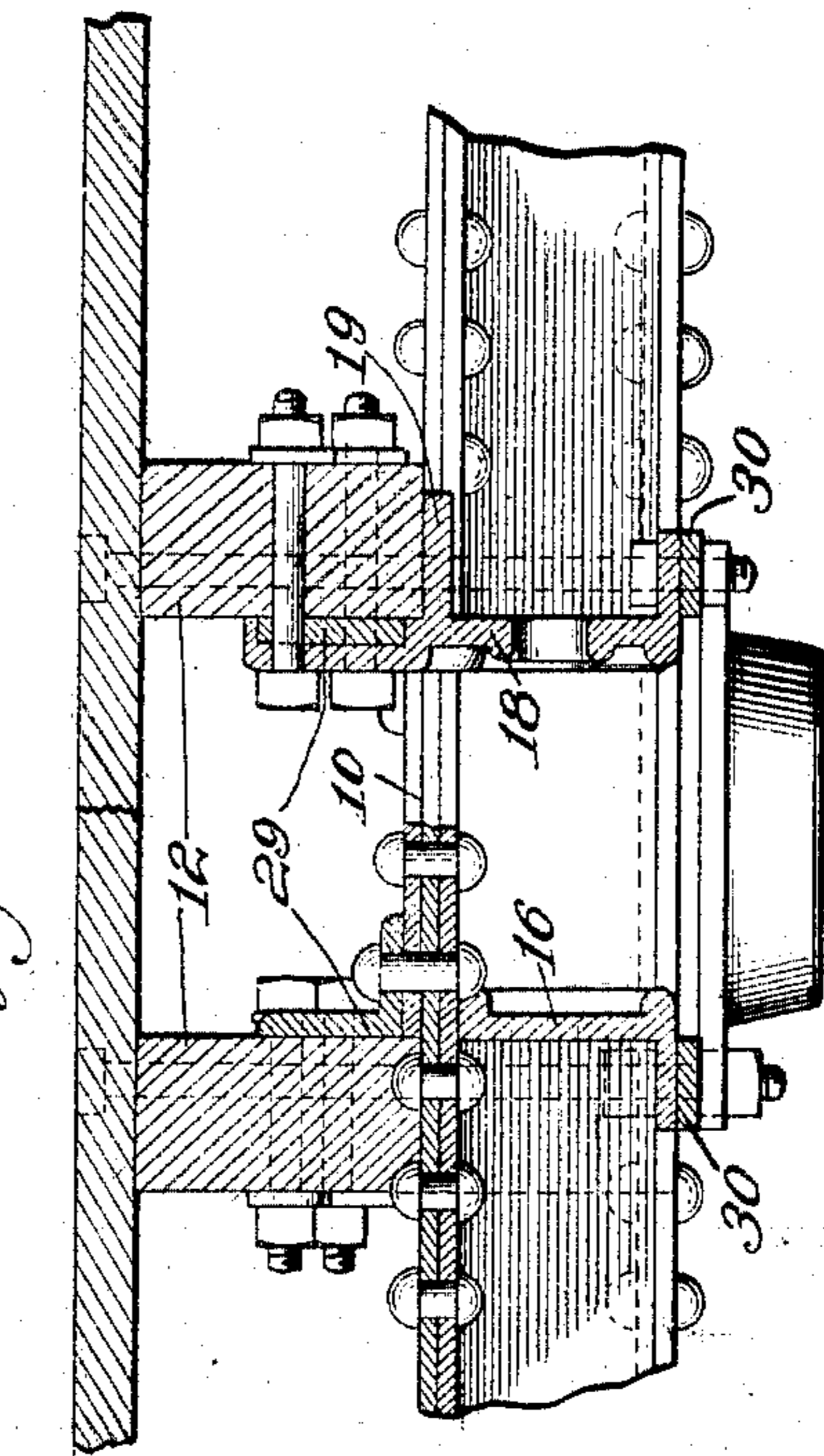
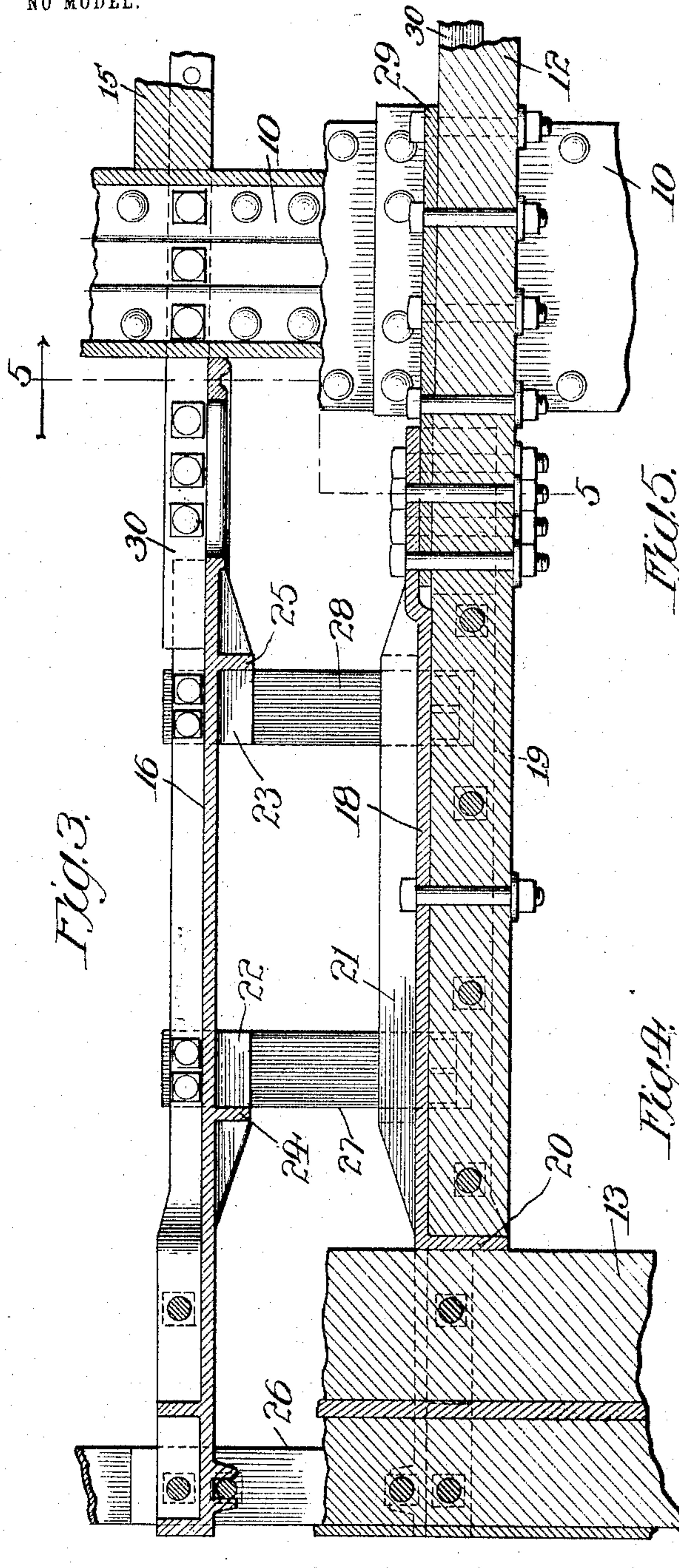
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2 SHEETS—SHEET 2.



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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. 776,579, dated December 6, 1904.

Application filed September 24, 1904. Serial No. 225,823. (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.

The object of the invention is to provide a simple and yet very strong underframing for freight-cars, and particularly with reference to cars employing sills of wood.

The invention is shown as applied to a car in which the sills are located above the body-bolster and the line of draft; and it consists in the structure hereinafter described and as illustrated in the accompanying drawings, in which—

Figure 1 is a detail longitudinal central section through the underframing of a car. Fig. 2 is a detail of one of the parts. Fig. 3 is a detail section on the broken line 3 3 of Fig. 4. Fig. 4 is a detail section on the line 4 4 of Fig. 1, and Fig. 5 is a detail section on the broken line 5 5 of Fig. 3.

The body-bolsters are represented at 10 and 11 and are of known construction. The center sills 12 12 rest upon the bolsters and extend substantially from end to end of the car and, as shown, are of wood. One of the end sills is shown at 13 and the usual dead-wood at 14. At 15 is shown a subcenter sill extending between and abutting against the body-bolsters, and this also is shown as of wood. Draft-plates, of which only three are shown in the drawings and designated 16, 17, and 18, are applied to the inner faces of the center sills 12 12, being securely bolted thereto. These plates are of sufficient length to extend from the outer face of the dead-wood 14 to the adjacent face of the body-bolster, as 10, against which they abut, and they are of sufficient depth to extend downwardly below the center sills to form a housing for the draft-rigging. These plates are cast with suitable shoulders and flanges to engage and form bearings for various parts of the under-

framing and for the draft-rigging. As the plates are identical in form, or mates, but one needs to be described in detail. A longitudinal flange 19 extends laterally from the back of the plate and has a bearing against the lower face of the center sill 12 and end sill 13, and through this flange and the sill attaching bolts may be passed, as shown. A vertical lateral flange 20 extends between the end of the center sill 12 and the rear face of the end sill 13. A longitudinally-extending flange 21 constitutes a covering for the draft-rigging followers. (Not shown.) The draft-shoulders 24 25 are formed integrally with the draft-plate. Tie-straps 26, 27, and 28 connect each pair of draft-plates, being secured to their bottom flanges, and shoulders 22 23 on the straps 27 28 form supports for the draft-rigging. The draft-plates are attached to the body-bolsters by means of angle-plates, which are shown at 29, one leaf of the angle-plate being bolted to the center sill and to the draft-plate 16 and the other leaf thereof being bolted or riveted to the body-bolster, as shown in Fig. 1. The rearward end of the draft-plate 16 is preferably offset, so as to form a pocket between it and the center sill to receive the end of the angle-plate 29. Connecting-straps 30 are attached to the lower faces of the draft-plates applied to the opposite ends of each center sill, passing below and being secured to the body-bolsters and the subsills 15.

The construction described provides an exceedingly rigid and strong yet simple underframing and one which is easy to assemble and convenient in making repairs. The various parts of the frame are thoroughly braced together and the strains of draft and buffing are well distributed. The line of draft is on the plane of the bolsters and the draft is applied directly to the bolsters, and by means of the subsills and connecting-straps below the same the strains are communicated from end to end of the frame and from bolster to bolster without danger of distorting the body of the car.

We claim as our invention—

1. In an underframing for cars, in combination, a pair of body-bolsters; a pair of end

sills; a pair of center sills abutting against the end sills and located above the bolsters; a pair of draft-plates at each end of the framing, one member of each pair being secured to the inner face of each of the center sills and having a bearing against an end sill and the adjacent bolster; and a strap connecting one member of each pair of draft-plates, such straps being below and secured to the bolsters.

10 2. In an underframing for cars, in combination, a pair of body-bolsters; a pair of end sills; a pair of center sills abutting against the end sills and located above the bolsters; a draft-sill located below and secured to each center sill and abutting against the adjacent faces of the bolster; a pair of draft-plates at each end of the framing, one member of each pair being secured to the inner face of each of the center sills and having a bearing against  
15 an end sill and the adjacent bolster; and a strap connecting one member of each pair of draft-plates, such straps being below and se-

cured to the bolsters and to the lower faces of the draft-sills.

3. In an underframing for cars, in combination, a pair of body-bolsters; a pair of end sills; a pair of center sills abutting against the end sills and located above the bolsters; a pair of draft-plates at each end of the framing, one member of each pair being secured to the inner face of each of the center sills and having a bearing against an end sill and the adjacent bolster; an angle-plate secured to the side face of each center sill, to the top of the bolster, and to the rearward end of each draft-plate; and a strap connecting one member of each pair of draft-plates, such straps being below and secured to the bolsters.

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