H. C. PRIEBE.

CAR UNDERFRAME.

APPLICATION FILED APR. 5, 1909.

946,865. Patented Jan. 18, 1910.

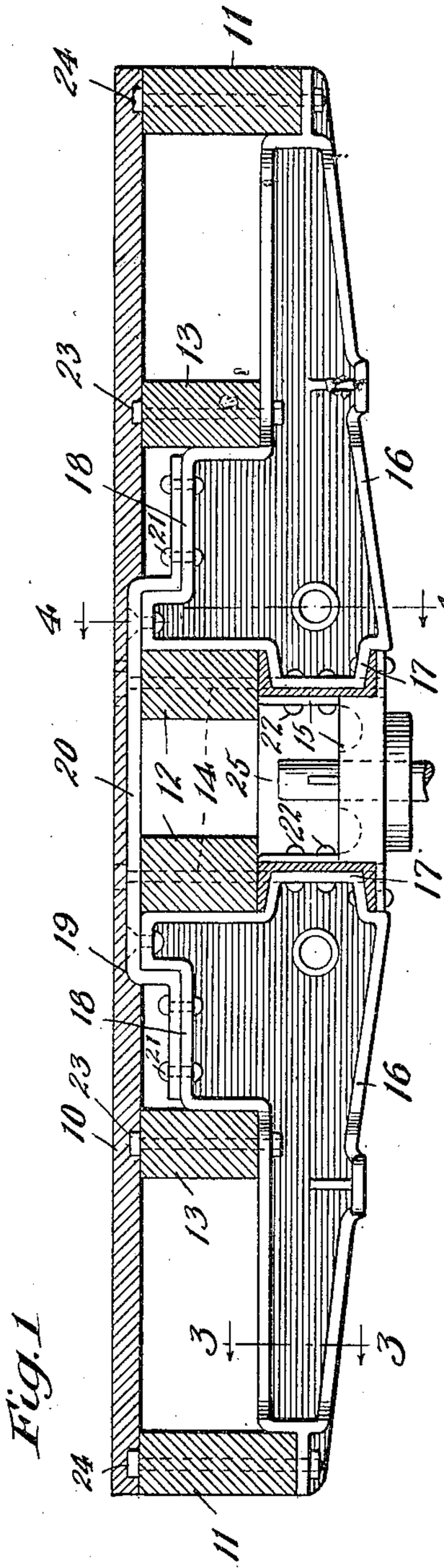

Fig. 1

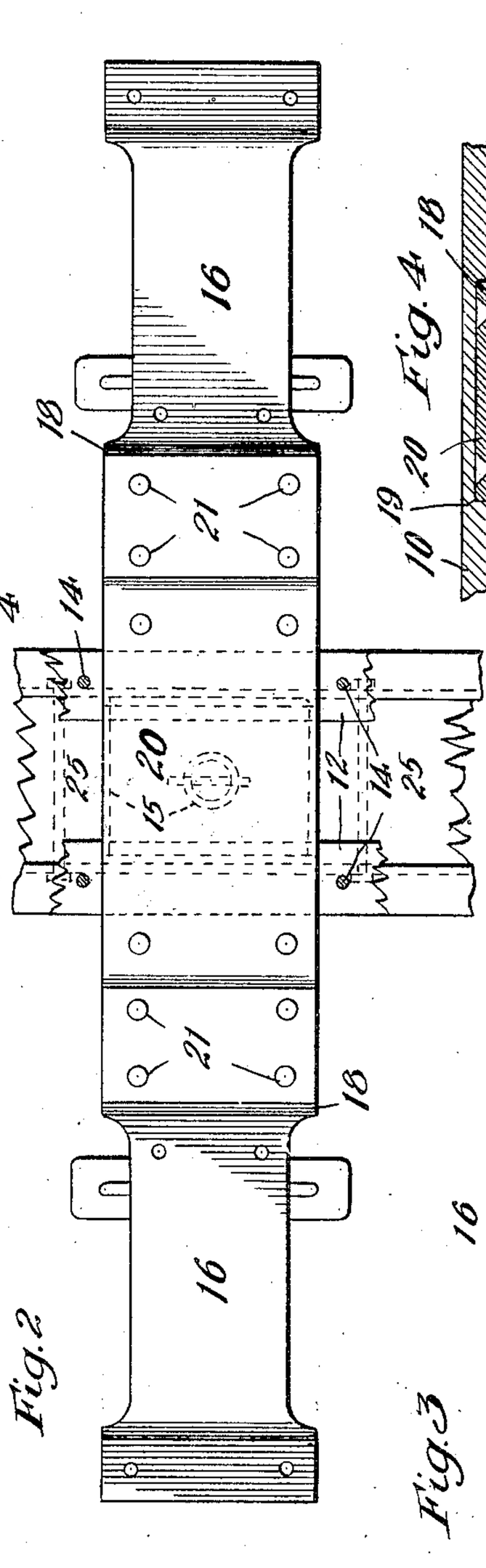

Fig. 2

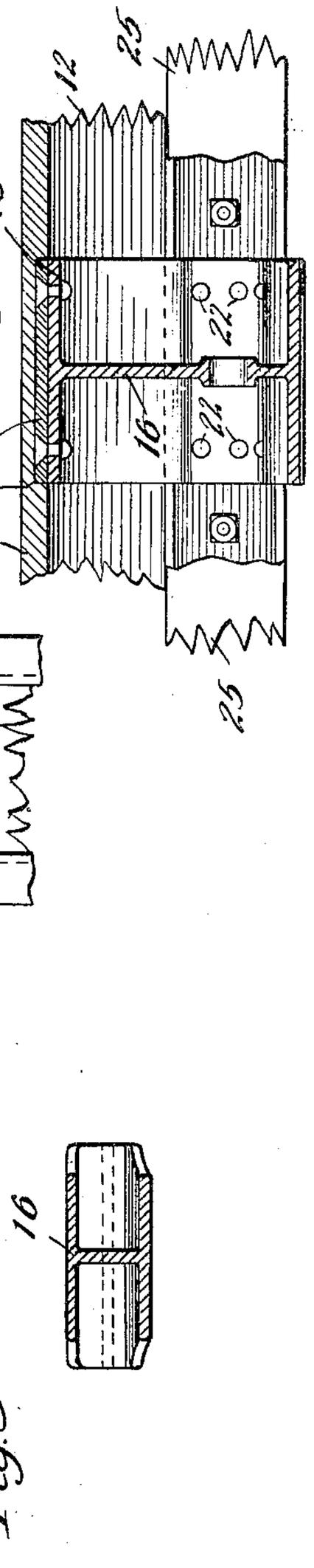

Fig. 4

Fig. 3

Witnesses

Wm. Geiger

H. W. Munday.

Inventor:
Herman C. Priebe
By Munday, Evarts, Adcock & Clarke.

Attorneys

UNITED STATES PATENT OFFICE.

HERMAN C. PRIEBE, OF CHICAGO, ILLINOIS.

CAR-UNDERFRAME.

946,865. Specification of Letters Patent. Patented Jan. 18, 1910.

Application filed April 5, 1909. Serial No. 487,918.

To all whom it may concern:

Be it known that I, HERMAN C. PRIEBE, a citizen of the United States, residing in Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Car-Underframes, of which the following is a specification.

My invention relates to car-underframes of the type set forth in the Patent No. 870,130 issued to me November 5th, 1907. In common with the construction set forth in that patent, the device of my present invention embodies a car-underframe in which there are combined with the car floor and sills, a pair of longitudinal channel-irons, contiguous to the center-sills, with two lateral bolster-sections seated against the channel-irons and each having an upright rise or supporting portion extending between the center and intermediate sills, the center-plate filler-block being secured between said channel-irons. But the particular embodiment of the invention of my prior patent that is shown in the drawing of that patent is an adaptation of the invention to a car-underframe in which there is either a single wooden center-sill or a pair of such sills not widely separated from each other, so that longitudinal channel-irons of maximum height may be employed and may be positioned contiguous to the vertical outside faces of the respective center-sills; while a principal object of the improvement that constitutes my present invention is to provide an adaptation of the prior invention to a car-underframe in which the wooden center-sills are widely separated or have their respective outer vertical faces widely separated, so that the channel-irons may not be effectively positioned outside of such outer faces of the sills. And further objects of the invention are to effect all other improvements in construction and function that may be found to obtain in the device as hereinafter described or claimed.

In the device of my present invention the channel-irons contiguous to the center-sills are positioned immediately underneath such sills, and the two lateral bolster-sections are of such form as to adapt them to be seated against the outer faces of said channel-irons and yet each retain the feature of the upright rise or supporting portion extending between the center and intermediate sills.

In the accompanying drawings forming a part of this specification, and in which like reference numerals indicate like parts in all of the figures, Figure 1 is a transverse sectional view of the car-underframe showing the two lateral bolster-sections in elevation; Fig. 2 is a top plan view of the bolster-sections and their tie-plate with the channel-irons and center-sills and center-plate partly indicated; Fig. 3 is a section on the line 3—3 of Fig. 1; and Fig. 4 is a section on the line 4—4 of Fig. 1.

10 is the car floor supported upon the side sills 11, 11 and center-sills 12, 12 and intermediate sills 13, 13. The center-sills are considerably separated from each other, and the channel-irons contiguous to said sills are positioned immediately underneath them and bolted to them by bolts 14, 14. The center-plate filler-block 15, to receive the king-bolt, is positioned between and secured to the channel-irons. The two bolster-sections 16, 16 between which the channel-irons are located, are each provided with a projecting tongue 17 seated and fitted into the outwardly facing channel of the corresponding channel-iron, and each has an upright rise or supporting portion 18 extending between the adjacent center-sill 12 and intermediate sill 13. In the drawings this upright rise or supporting portion of each bolster-section is shown as rising to the top of the outer face of the contiguous center-sill 12 and dropping away to some extent toward the adjacent intermediate sill 13. The car floor boarding is slightly recessed at 19 to accommodate the tie-plate 20 that extends over the pair of center-sills 12 and the tops of the upright portions 18 of the respective bolster-sections and is riveted to such uprights of the bolster-sections by the rivets 21, thereby binding the two bolster-sections together at the top across the interposed center-sills. The tongues 17 of the bolster-sections, seated in the channels of the channel-irons are secured to the channel-irons by the rivets 22, which also secure the center-plate to the inner faces of the channel-irons. The intermediate sills 13, at the outer edges of the upright portions of the bolster-sections, are secured to the bolster-sections by the bolts 23; and the side sills, seated at the outer ends of the bolster-sections, are secured to such ends by the bolts 24. Filler-beams 25 space the channel-irons, forward and back of each center-plate.

This construction provides a steel underframe that is adapted to be applied to and

to insure the maximum stiffening and rigidity of a car body having a wooden underframe in which the sills are disposed in the general manner indicated in the drawing, and yet does not require any cutting away or weakening of the wooden under-frame, or any dismemberment of such wooden underframe when the steel channel-irons and bolster-sections are required to be applied to the wooden car after it has been completely built or put into service. The construction also permits the effective use of much lighter or narrower channel-irons than those indicated in the drawing of my aforesaid prior patent, wherever such lighter channel-irons are found sufficient or more desirable. The positioning of the channel-irons underneath the center-sills may give even more effective support to such sills than the bolting of channel-irons upon the outside vertical faces of the sills.

My invention is hereinabove set forth as embodied in one particular form of construction, but I do not limit it thereto or to less than all of the possible forms in which the invention as hereinafter claimed may be embodied and distinguished from prior devices for like purpose.

I claim:—

1. In a car-underframe, in combination: side, center and intermediate sills; two lateral bolster-sections secured to said sills and each having an upright supporting rise extending between the center and intermediate sills; and channel-irons supporting and contiguous to the under faces of the center-sills and secured against the aforesaid bolster-sections on either side; substantially as specified.

2. In a car-underframe, in combination: side, center and intermediate sills; two lateral bolster-sections secured to said sills and each having an upright supporting rise extending between the center and intermediate sills; and channel-irons supporting and contiguous to the under faces of the center-sills, the downwardly facing channels of said channel irons socketing inwardly projecting tongues of the aforesaid bolster-sections on either side; substantially as specified.

3. In a car-underframe, in combination: side, center and intermediate sills; two lateral bolster-sections secured to said sills and each having an upright supporting rise extending between the center and intermediate sills; channel-irons supporting and contiguous to the under faces of the center-sills and secured against the aforesaid bolster-sections on either side; and a center-plate secured between said channel-irons; substantially as specified.

4. In a car-underframe, in combination: side, center and intermediate sills; two lateral bolster-sections secured to said sills and each having an upright supporting rise extending between the center and intermediate sills; and a tie-plate secured at its ends to the said upright portions of the respective bolster-sections and spanning the center-sills; channel-irons supporting and contiguous to the under faces of the center-sills and secured against the aforesaid bolster-sections on either side; substantially as specified.

5. In a car-underframe, in combination: side, center and intermediate sills; two lateral bolster-sections secured to said sills and each having an upright supporting rise fitting between and shouldering the center and intermediate sills; and channel-irons supporting and contiguous to the under faces of the center-sills and secured against the aforesaid bolster-sections on either side; substantially as specified.

6. In a car-underframe, in combination: side, center and intermediate sills; two lateral bolster-sections secured to said sills and each having an upright supporting rise extending between the center and intermediate sills, said upright rising too near the top of the adjacent center-sill and being dropped away toward the opposed intermediate sills; and channel-irons supporting and contiguous to the under faces of the center-sills and secured against the aforesaid bolster-sections on either side; substantially as specified.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

HERMAN C. PRIEBE.

Witnesses:
H. M. MUNDAY,
HENRY LOVE CLARKE.