J. ACKER & C. L. BUNDY.

DRAFT SILL.

APPLICATION FILED JUNE 20, 1907.

935,449.

Patented Sept. 28, 1909.

2 SHEETS—SHEET 1.

FIG. 1.

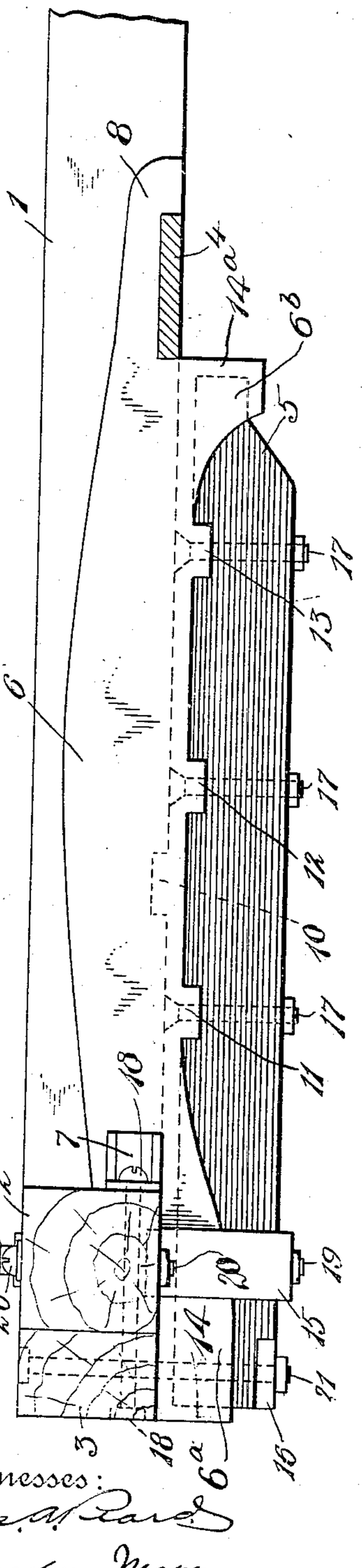
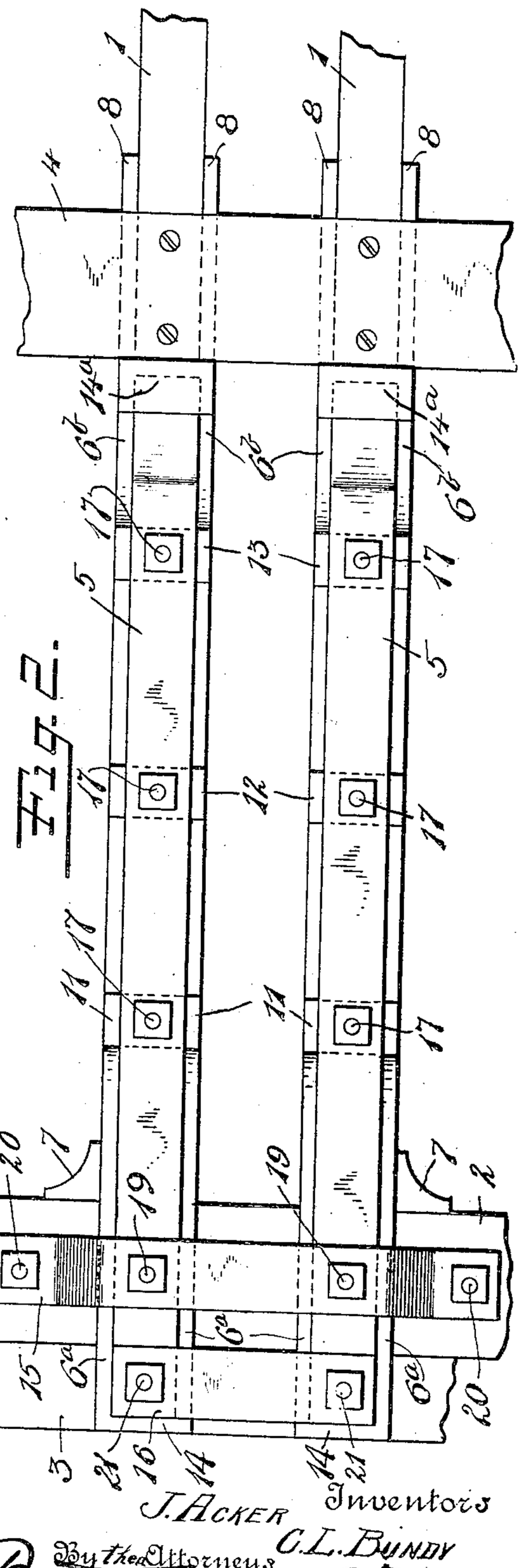


FIG. 2.



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2 SHEETS—SHEET 2.

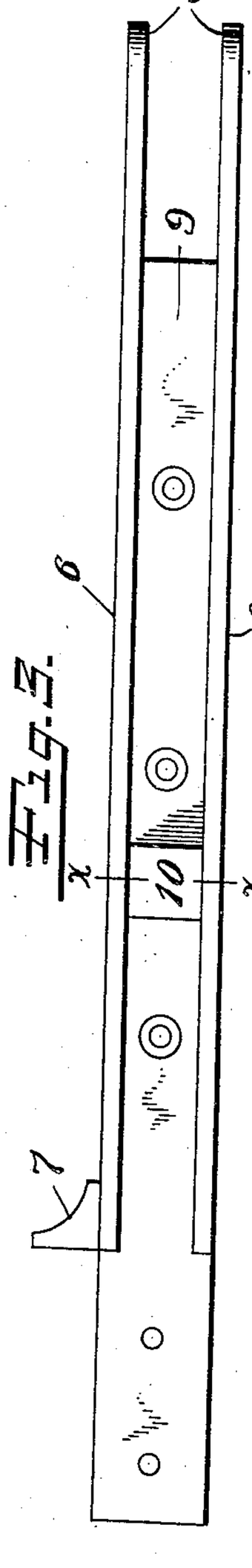

FIG. 2.

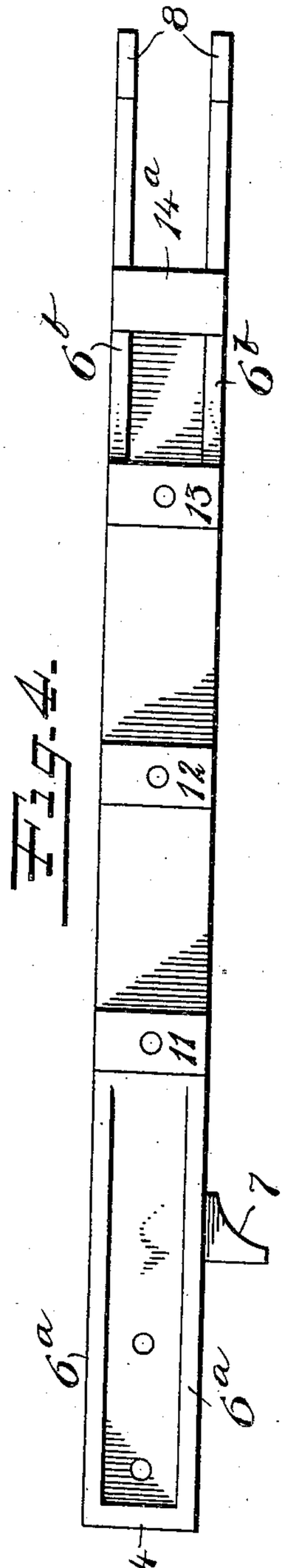

FIG. 4.

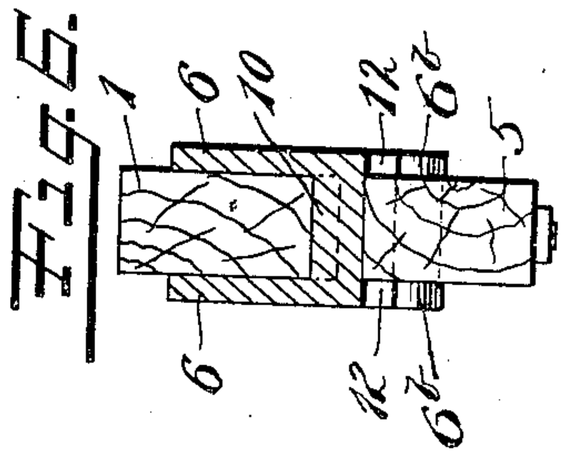

FIG. 3.

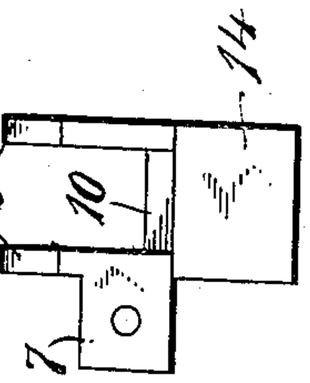

FIG. 5.

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UNITED STATES PATENT OFFICE.

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DRAFT-SILL.

935,449. Specification of Letters Patent. Patented Sept. 28, 1909.

Application filed June 20, 1907. Serial No. 379,823.

To all whom it may concern:

Be it known that we, JULIUS ACKER and CYRUS L. BUNDY, citizens of the United States, residing at Horton, Brown county, Kansas, and Chicago Heights, Cook county, Illinois, respectively, have invented certain new and useful Improvements in Draft-Sills, of which the following is a full, clear, and exact description.

Our invention relates to improvements in car construction, and more particularly to a connecting frame for uniting the draft timbers and center sills of a draft rigging.

The object of our invention is to provide a draft timber connection without draft timber bolts passing through the center sills, and which can be applied to loaded cars without disturbing the load or entering the cars.

By passing securing means through the center sills they are considerably weakened and often break. Our invention not only does away with this weakening influence, but the construction is such as to strengthen the parts usually weakened by securing the draft timbers thereto.

In the drawings—Figure 1 is a side view in elevation of our invention; Fig. 2 is a bottom plan view of the same; Fig. 3 is a top plan view of a detached frame; Fig. 4 is a bottom plan view of Fig. 3; Fig. 5 is an end view in elevation of Fig. 3, looking from left to right; Fig. 6 is a sectional view taken on line *x*—*x* of Fig. 3.

In the particular form of our invention, as shown in the drawings, 1—1 represents the center sills.

2 is the end sill.

3 is the deadwood.

4 is a fixed transom.

5—5 are the draft timbers.

6—6 are the side members of the frame, which side members extend upward on each side of the sills 1—1, from the end sill 2 to the transom 4, as shown in Fig. 1.

7 is a bracket on each outer side member 6, where it abuts the end sill 2.

8—8 are hooked extensions of the side members 6—6, passing over and detachably engaging the transom 4.

9 is the base of each frame joining the sides 6—6.

10 is an integral draft abutment above the base 9 and between the sides 6—6, adapted to engage in a corresponding recess in its respective center sill 1.

11—12—13 are integral draft abutments extending below the base 9 of the frame, adapted to engage in corresponding recesses in their respective draft timbers 5—5. The base extends from the transom 4 to a point flush with the outer side of the deadwood 3. The ends of the base 9 extend downward at 14—14ª to form end abutments for the draft timbers 5—5. The sides of the frame extend downward at the forward and rear ends, as at 6ª and 6ᵇ, forming pockets with the parts 14 14ª respectively to embrace the draft timbers 5 at each end thereof.

15 is a tie strap passing under the timbers 5—5 to the end sill 2.

16 is a brace connecting the lower extremities of the draft timbers 5—5 under the deadwood 3.

17 are draft timber bolts extending downward through the base 9 and carried thereby.

In assembling and securing in place, the hooked extensions 8—8 of the frames are engaged with the transom 4. The draft abutment 10 is engaged in the recess therefor, in the center sill 1. When the base fits up snugly under the center sill 1, end sill 2 and deadwood 3, it is secured in place by the bolts 18 passing through the brackets 7, end sill 2 and deadwood 3. The draft timbers 5—5, which are provided with recesses for the abutments 11—12—13, and are of such length as to fit between the parts 14—14ª, are then passed over the draft timber bolts 17 and are secured in place thereby. The tie strap 15 is placed in position and secured to the draft timbers 5—5 by the bolts 19 passing through the end sill 2 and draft timbers 5, and to the end sill 2 by the bolts 20. The brace 16 is secured in place by the bolts 21 passing through the deadwood 3 and the draft timbers 5—5.

The advantages of this appliance are that it is readily attached to any car without necessitating a change in the construction thereof; it engages the end sill and transom while supporting and strengthening the center sill; the draft timbers are prevented from longitudinal movement by the pockets formed between the ends of the base and sides, as well as by the lugs, and by this

frame the draft timbers are secured to the center sills, end sills, deadwood and transom, without weakening any of said parts.

The device as shown and described is the preferred form. However, minor changes may be made in details without departing from the scope of our invention.

As shown, the inside of the part 14ª is formed after the manner of a socket to receive and support the adjacent end of the draft timber, as indicated in dotted lines in Fig. 1.

What we claim is—

1. In a car construction, center sills, an end sill and a transom, a base engaging the under side of each center sill and extending under the end sill, side members on each side of said bases embracing and reinforcing said center sills, means for securing said members to said end sill, and hook-shaped portions at the rear ends of said bases adapted to engage and be supported by said transom.

2. In a car construction, center sills, an end sill and transom, a base engaging the under side of each center sill and extending under the end sill, side members on each of said bases embracing and reinforcing said center sills, means for securing said members to said end sill, a draft timber secured to each of said bases, and means at the rear ends of said bases arranged to be supported by said transom.

3. In a car construction, center sills, an end sill and transom, a base engaging the under side of each center sill and extending under the end sill, side members on each of said bases embracing and reinforcing said center sills, means for securing said members to the rear of said end sill, a draft timber secured to each of said bases, means connecting said draft timbers to each other, and hook-shaped members at the rear of said bases to engage over and receive support from said transom.

4. In a draft sill, a frame comprising a base adapted to underlie the center sill of a car and having side members extending upwardly therefrom to embrace said sill, a shoulder extending laterally from one of said side members and adapted to be secured to an end sill, and members extending rearwardly from said base to and to engage over a transom.

5. In a car construction, center sills, an end sill, deadwood and transom, a base arranged on the under side of each center sill and extending from said transom under said end sill and deadwood, side members on each base embracing and reinforcing said center sill and secured only to said end sill, an extension on each side member passing over and embracing said transom, and a draft timber secured to each of said bases.

6. In a car construction, a center sill, an end sill, deadwood and transom, a frame comprising a base extending under said center sill and end sill but secured only to said end sill, said frame having side members embracing said center sill and hooked over said transom.

7. In a draft sill, comprising a frame consisting of a base adapted to underlie the center sill of a car and having side members extending upwardly from said base and adapted to embrace a center sill, said frame adapted to extend from the car transom to the end sill and having means to engage over and receive support from said transom, and having means at its forward end to abut against the rear of and be secured to an end sill, and means at the under side of said base to receive and secure a draft timber thereto.

8. In a car construction, a frame comprising a base, a depending flange at each end thereof, flanges extending upward on each side from said end flanges to said base and above said base from a point short of one end thereof, and having extensions beyond the other end of said base, and a plurality of depending draft abutments on the under side of said base.

9. In a car construction including a transom, a frame detachably secured thereto, channels at the upper and lower sides of said frame to respectively engage the center sills and draft timbers, draft abutments on said frame engaging said parts respectively, an end sill, a bracket on said frame engaging the same, and means for securing said draft timbers to said end sill and to said frame.

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