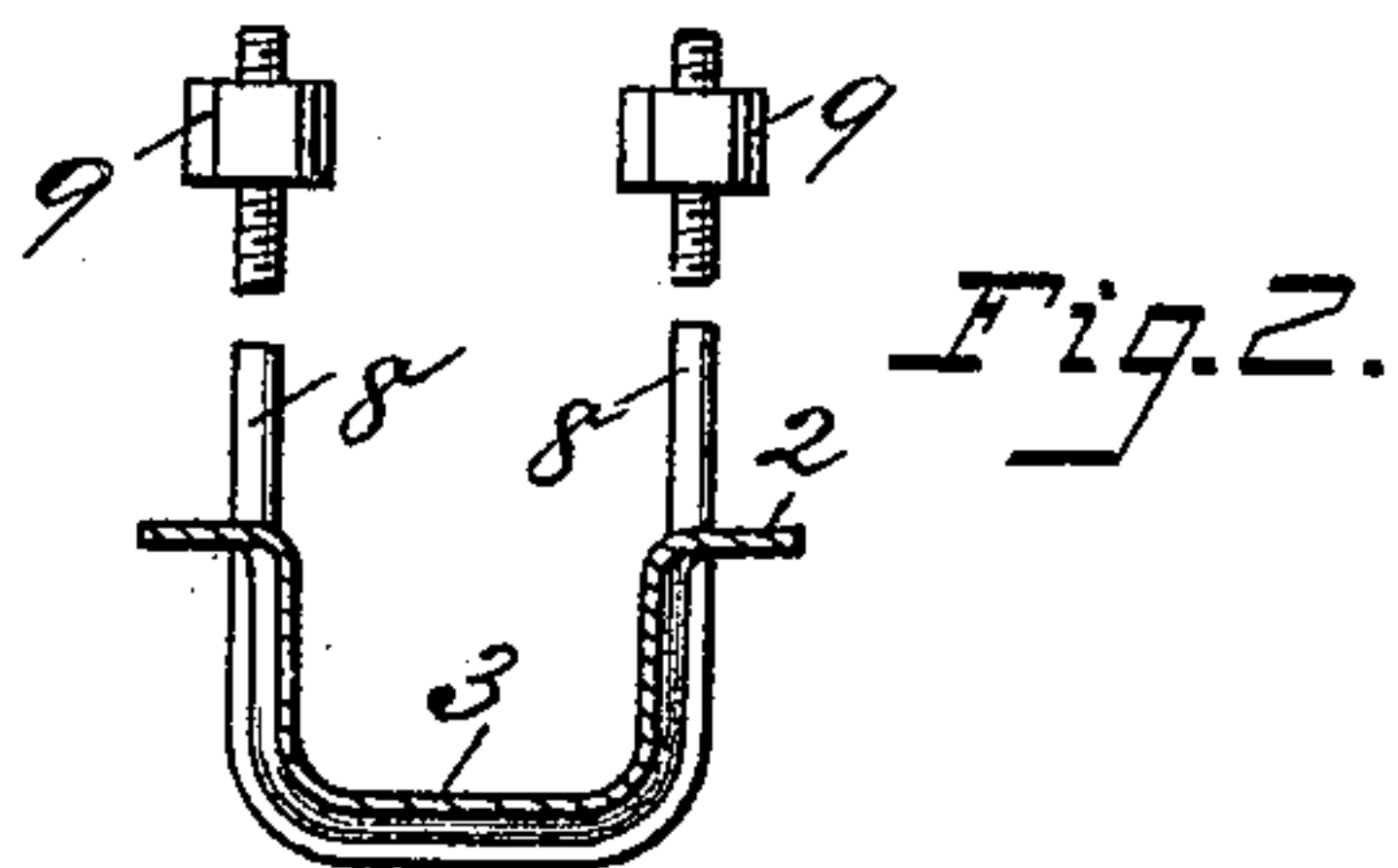
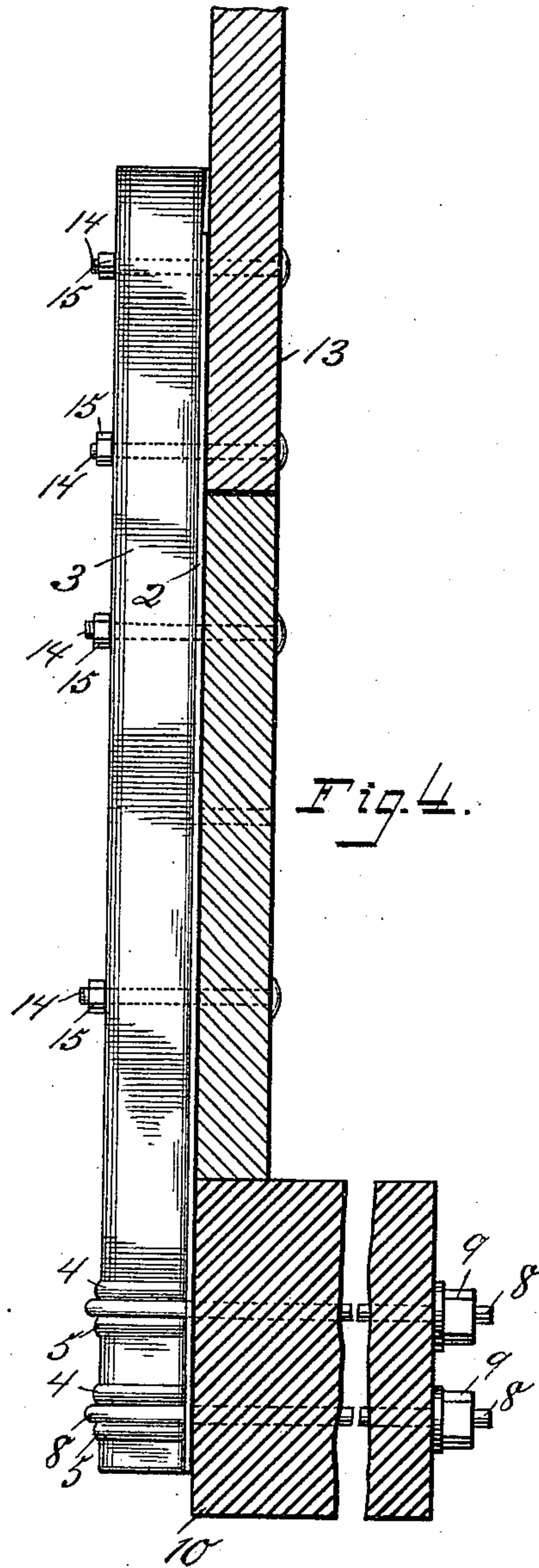
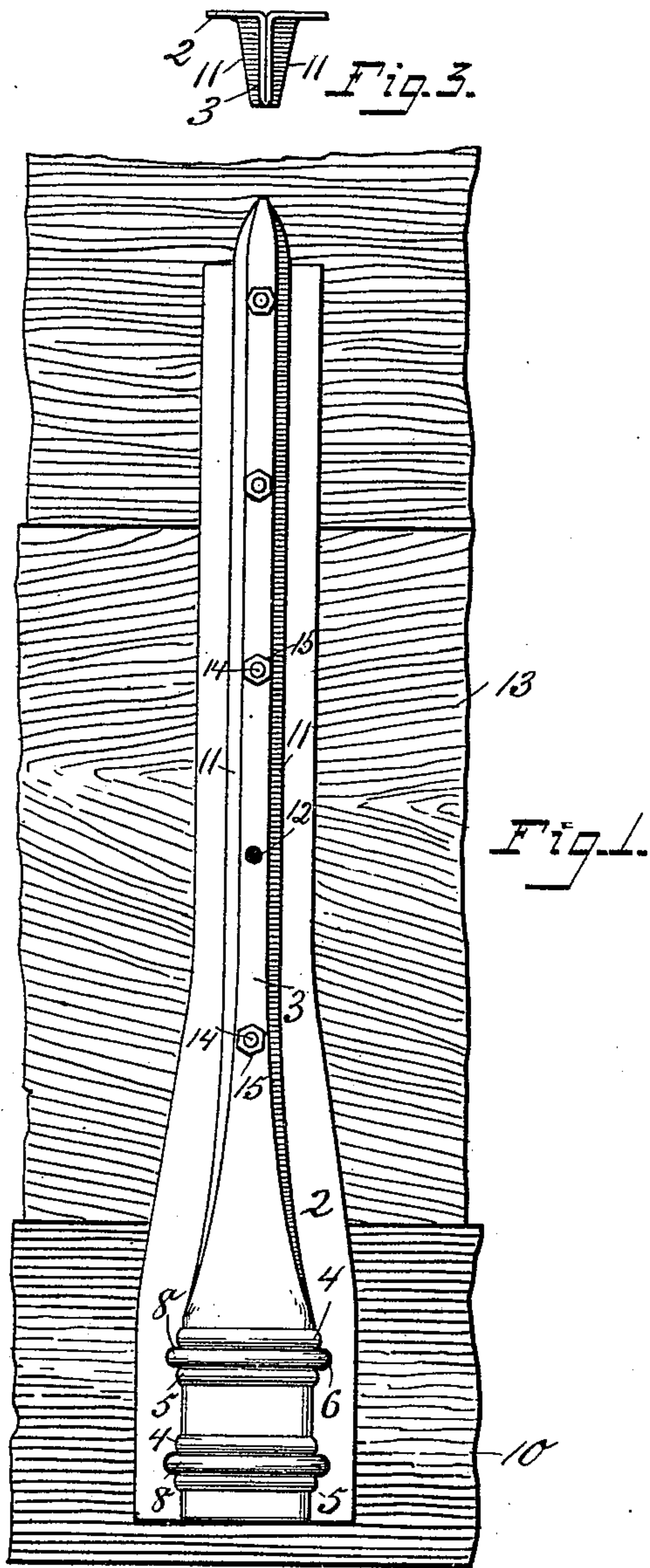


(No Model.)

J. C. BARBER.  
STAKE FOR RAILWAY CARS.

No. 441,736.

Patented Dec. 2, 1890.



Witnesses.

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# UNITED STATES PATENT OFFICE.

JOHN C. BARBER, OF ST. PAUL, MINNESOTA.

## STAKE FOR RAILWAY-CARS.

SPECIFICATION forming part of Letters Patent No. 441,736, dated December 2, 1890.

Application filed April 28, 1890. Serial No. 349,724. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN C. BARBER, of St. Paul, in the county of Ramsey and State of Minnesota, have invented certain Improve-  
5 ments in Pressed-Steel Stakes for Railway-Cars, of which the following is a specification.

My invention relates to stakes for railway-cars.

My invention is designed especially to take  
10 the place of the wooden side stakes heretofore used and which have heretofore been secured in cast-iron sockets secured to the sill of the car.

My invention consists in a stake made en-  
15 tirely of one piece of heavy sheet metal, preferably of steel, and pressed out in a form adapted to give the greatest possible strength to the stake, as well as convenience in application.

My invention will be more readily under-  
20 stood by reference to the accompanying drawings, in which—

Figure 1 represents a side stake embodying my invention secured to a section of the car.  
25 Fig. 2 is a plan view of the stake from below.  
Fig. 3 is a plan view of the same from above.  
Fig. 4 is a side elevation from Fig. 1.

My stake consists in a flat plate 2 of sheet metal, preferably steel, pressed out into form  
30 and having a hollow strengthening rib or back 3, projecting from the plate. This rib 3 is enlarged at the bottom into the form, preferably, of a three-sided box, and is provided at this point with the beads 4 and 5. The holes 6  
35 are provided in the flat part of the plate 2 and in line with the grooves between the retaining-beads at 4 and 5. The staples 8 are put through these openings and through the sill of the car, and then drawn up tight, with the  
40 nuts 9 on the ends of the staples. The stake is thus held very securely against the side of the sill-beam 10, and prevented from being pulled up or dropped down by the staples being tightly held in the necks or grooves be-  
45 tween the beads 4 and 5. The upper part of the stake is preferably somewhat narrower than the lower part, and the hollow rib 3 is preferably stamped out in a wedge-like form, having the inclined sides 11. At the upper  
50 end of the stake the flat plate 2 is preferably cut off to the line where the inclined sides of the rib and the plate meet, thus leaving the

rib extending a short distance above the end of the flat plate 2. The sides of the rib are then turned in until they come together, thus  
55 closing the opening that would otherwise be left in the top of the stake. A convenient number of holes 12 are provided in the back of the rib, and the round-headed bolts 13 inserted through the side planks of the car 14  
60 and through the said holes 12, and there secured in position by the nuts 15. I thus provide a car-stake which has a maximum strength with a minimum amount of material, as the rib is adapted to withstand a great  
65 crushing force, and a stake which, unlike the old form of wooden stake provided with a tenon fitting into an iron socket on the sill, will always retain its original position, instead of yielding to the pressure tending to spread  
70 the sides of the car, and thereby increasing the capacity of the car above the desired limit.

This stake is adapted for general use on railway-cars wherever it is desired to use  
75 either a stake or a post. The plate forms a broad flange at each side of the rib, and thus has a broad bearing on the sill, so that the outward pressure on the upper part of the stake cannot force the lower part of the stake  
80 into the wood. The lower end of the stake may be secured to the sill in any suitable manner, as by being made in suitable shape to fit into a socket secured on the sill in the ordinary way, in which case the stake will be  
85 movable.

I claim as my invention—

1. As an article of manufacture, a car-stake pressed out of one piece of metal in the form of a plate, provided with a strengthening back or rib, the lower end of said rib forming a  
90 three-sided box, and provided with the retaining beads and holes in the plate portion of the stake in line with the grooves between the said beads and adapted to receive suitable staples for securing the stake to the car-sill, 95 the upper part of the said rib being provided with holes adapted to receive bolts for securing the sides of the car and having the sides of the said rib turned in at the upper end to close the opening at the top of the stake. 100

2. A stake for supporting the side of a car, consisting of a plate of metal pressed into form, with a projecting rib having a wedge-shaped form in the upper part of the stake



and in the lower portion thereof in the form of a three-sided box, provided with suitable horizontal retaining-beads and staple-holes, the upper end of the stake having the sides 5 of the said rib turned in to meet each other and provided with suitable bolt-holes, in combination with the sill and the side of said car, suitable staples securing said stake to the sill and between the said beads, and suitable bolts 10 inserted through the said sides of the car and holding the same against the said stake, substantially as shown and described.

3. The combination, in a car-stake pressed out of one piece of metal, of the flat plate 2, 15 provided with the wedge-shaped rib adapted to make rigid the upper part of the stake, the three-sided-box portion forming the lower part of the stake and being an enlarged extension of said rib, the beads 4 and 5, pro-

vided upon said three-sided-box portion, the 20 holes 6 in said plate and between the said beads, the staples 8, adapted to be inserted through said holes 6 and to engage said beads, and the bolt-holes 12 in the upper wedge-shaped part of the rib, through which the bolts 25 by which the sides of the car are secured to the stake are adapted to be inserted, the upper sides of said wedge-shaped portion being turned in together to close the opening between the sides of the rib, and the upper sides 30 of the flat plate 2 cut off, substantially as described.

In testimony whereof I have hereunto set my hand this 22d day of April, 1890.

JOHN C. BARBER.

In presence of—

A. C. PAUL,

A. M. GASKILL.