

No. 865,508.

H. E. LIND. PATENTED SEPT. 10, 1907.
CAR REPAIRING DEVICE.
APPLICATION FILED MAY 22, 1907.

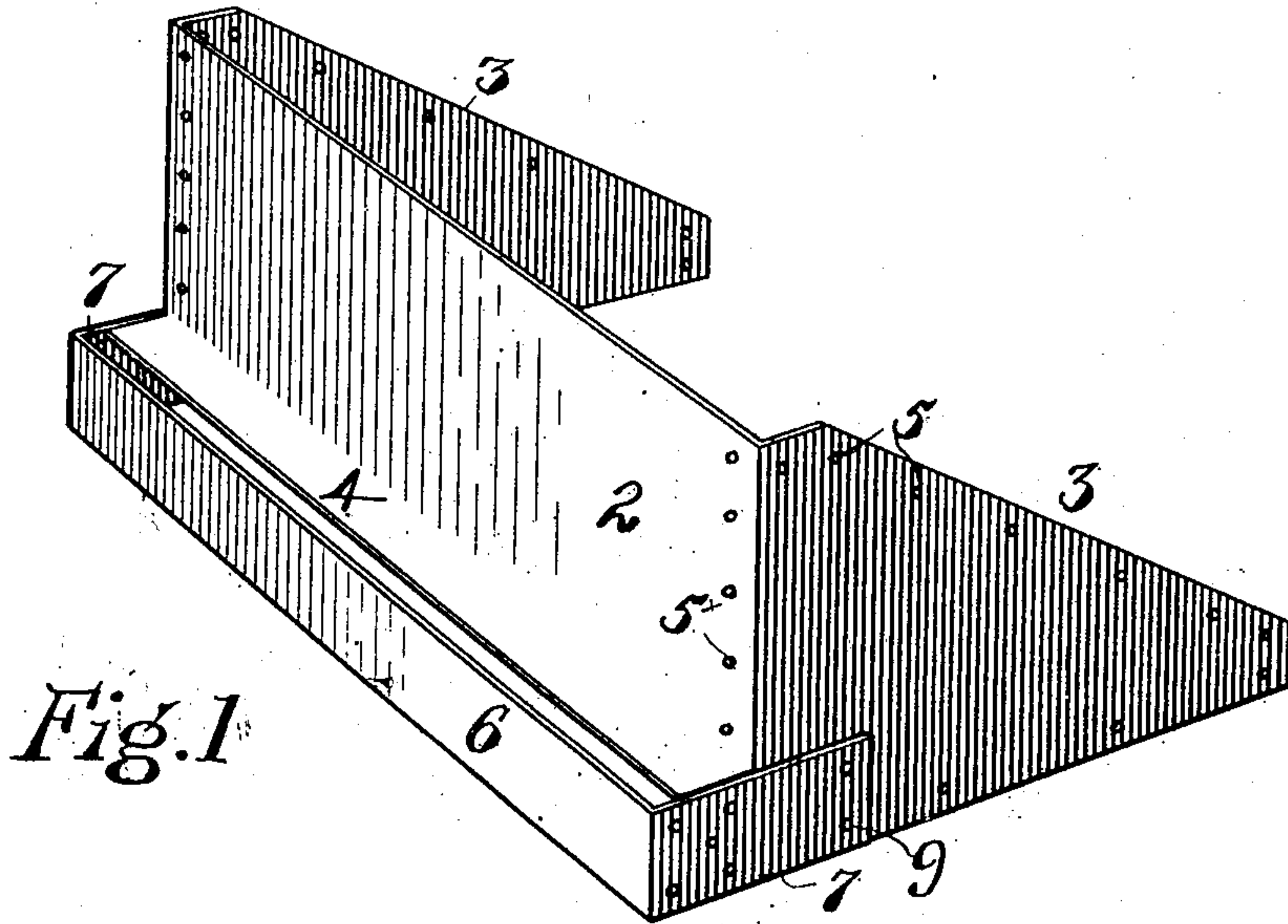


Fig. 1

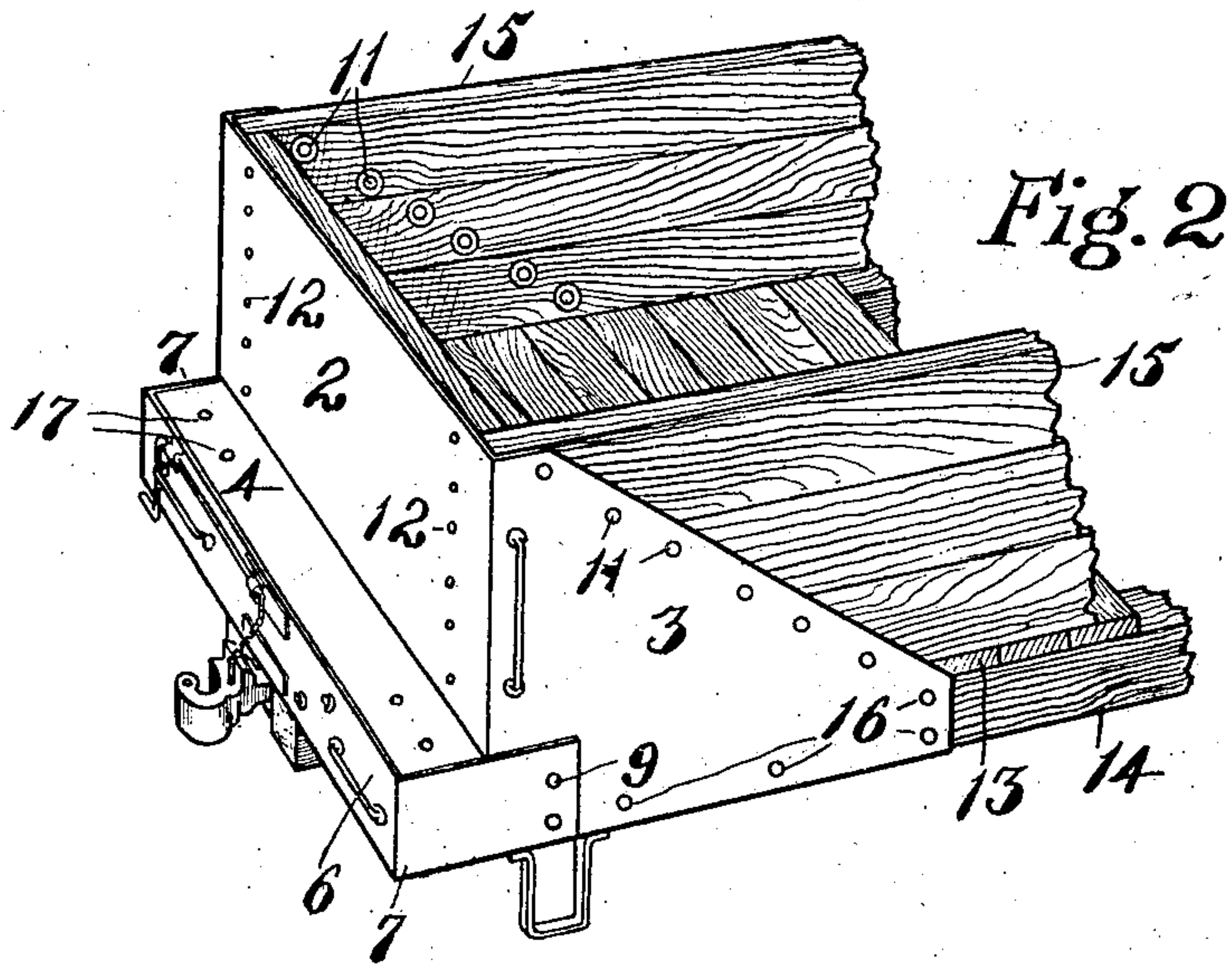


Fig. 2

Witnesses:

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HARVEY E. LIND, OF KENT, OHIO.

CAR-REPAIRING DEVICE.

No. 865,508.

Specification of Letters Patent.

Patented Sept. 10, 1907.

Application filed May 22, 1907. Serial No. 375,132.

To all whom it may concern:

Be it known that I, HARVEY E. LIND, a citizen of the United States, residing at Kent, in the county of Portage and State of Ohio, have invented new and useful **Improvements in Car-Repairing Devices**, of which the following is a specification.

This invention relates to devices for strengthening or repairing the ends of railroad cars.

In order that the object of this invention may be better appreciated, it will be stated that wooden box and gondola cars frequently have their ends and a portion of their sides broken and torn out from various causes and especially by the impact resulting from the shifting of heavy freight with which the cars are loaded, thereby requiring more or less rebuilding of the body of the car before the same is available for use; and as it is customary to unite the ends of such cars to the sides by means of angle iron secured in position by bolts which are torn loose by the destruction of the car ends, the adjacent portion of the sides are generally so badly injured as to be no longer serviceable or strong enough to permit new ends to be secured thereto, the result of which is, that frequently the sides of the car require replacement as well as the ends, thus incurring great additional loss, both of time and money in repairing a car. Experience has also shown that where cars of this type are to be used for heavy, easily shiftable freight, the employment of my improved device will so strengthen the ends of the car that the danger of the ends of the car being broken or destroyed in ordinary use is practically eliminated.

The object of this invention therefore, is to provide a device by which the ends of car bodies may be either so reinforced in the first place, as to prevent their destruction under ordinary circumstances, or it may be used to readily repair the same if already broken.

Various other advantages constituting objects of this invention will more fully appear in the subjoined description of the device.

A practical embodiment of this device is shown in the accompanying drawings, in which similar reference numerals indicate like parts in the different figures.

In the drawings, Figure 1 is a perspective view of my improved device detached from a car; and, Fig. 2 a perspective view of my improved device in position on the end of a car.

The device herein described is customarily constructed of metal of great strength having sufficient malleability to be formed into the peculiar shape, which it is required to assume, in order to adapt itself to the uses for which it is intended; and it consists of a main portion, designated in the drawings by the reference numeral 1, preferably constructed of sheet metal having an upright portion 2 with lateral wings 3, 3, preferably bent at right angles to the portion 2. The upper edges of the lateral wings 3 are preferably truncated,

as shown in the drawings. The lower end of the portion 2 is preferably bent outwardly to constitute a foot 4 at approximately right angles to the main portion 1. This foot portion 4 is not absolutely essential, but is a preferred form of construction. The upright portion 2 and lateral wings 3 are provided with a plurality of openings 5 through which holdfast devices may be passed for securing the entire device to the end of a car.

The foregoing description describes my device when it is intended to be used upon cars in which there is no projecting flooring, or no sill extending beyond the body portion of the car; but if the device is to be used on a car in which the end sill or the end sill and flooring of the car are arranged to project beyond the end of the car body, I employ an auxiliary or supplemental device consisting of a cross piece 6 arranged to extend across the face of the end sill and cover the same; and this is further provided with right angularly-formed wings 7 designed to be secured by means of bolts 9 passed through suitable openings in the wings 7.

In using this device where the ends of a car (such as is shown in Fig. 2) has been torn loose and possibly the ends of the sides thereof so shattered that they are not sufficiently strong to properly retain a second end piece in position between them, a new end piece is placed in position on the car conforming in all respects to the one which it replaces, and the device shown in Fig. 1 is then placed on the end of the car in the manner shown in Fig. 2 and secured to the car sides by a plurality of bolts 11 and to the car end by means of bolts 12. It will be frequently found necessary to cut away the portions of the flooring designated by the reference numeral 13, which project over the longitudinal sills 14 sufficiently to make the wings 3 of the device properly contact with both the sides 15 and sills 14; thereby permitting the use of bolts, referred to in the drawings by the reference numeral 16, in securing the device to the longitudinal sills, thereby strengthening the engagement of the device with the entire car frame.

It will be further noted that when the device is in the position shown in Fig. 2 the cross piece 6 will inclose the end sill (not shown). If desired, bolts 17 may be employed for further strengthening the union of the device with the car by being passed through the flange 4 and end sill. This flange also serves as a cover and a protection for the floor and sill of the car projecting beyond the ends. Although not shown, a cushioning strip may be secured to the front face of the cross piece 6 and ordinary bumpers mounted thereon, if desired; but as the mounting of these bumpers is well known in the art, an illustration and further description of them is believed to be unnecessary.

In constructing the device it will be preferably made of a height sufficient to extend from the under face of the longitudinal sills of the car to the plane of the top of the car body when employed upon such cars as are

illustrated in Fig. 2, thereby strengthening the entire structure of the end of the car by providing means whereby the entire end of the car may be directly reinforced by the securing of the device to the longitudinal sills, which is not usually possible where the ordinary devices are employed, they, on the contrary, furnishing only means for uniting the ends and sides of the car without enabling the ends of the car to be reinforced by being connected to the longitudinal sills.

- 10 From the foregoing it will be seen that the repairing of cars having broken ends may be easily and quickly accomplished, and cars when so repaired will be stronger than those cars originally built without this device. This device further provides means whereby ordinary wooden box cars may be furnished and supplied with metallic ends to strengthen them against shiftable heavy freight and possible collision.

What I claim and desire to secure by Letters Patent, is:—

- 20 1. A reinforcing device for railroad cars provided with wooden superstructures comprising a metallic end arranged to extend across and cover a substantial portion of the end of the car and having lateral wings adapted to lap the sides of the car and sides of the car sills and provided with means through which are adapted to extend holdfast devices for securing said device in position.
- 25 2. A device of the class described comprising a transverse portion adapted to extend across the end of a car having a laterally-extending foot to cover an extension projecting from the car body, and further provided with lateral wings provided with means through which are adapted to extend holdfast devices for retaining said device in position.
- 30 3. A device of the class described comprising a member having a transverse portion adapted to extend across the end of a car body terminating at its base in a lateral flange adapted to cover an extension of the car projecting from the body portion thereof and further provided with truncated lateral wings adapted to lap the sides of the car body and sills and having openings through which

are adapted to extend holdfast devices for retaining said device in position.

4. A device of the class described comprising a member having a transverse portion arranged to extend across the end of a car terminating at its base in a lateral flange arranged to cover an extension of the car body, and further provided with lateral wings to lap the sides of said car provided with openings through which are adapted to extend holdfast devices, and a member adapted to inclose the end sill of the car and be secured by holdfast devices to the body portion of said device.

5. A device of the class described comprising a member having an upwardly-extending portion arranged to extend across the end of a car and provided with lateral wings having openings through which are adapted to extend holdfast devices, and a member provided with lateral end wings arranged to inclose the end sill of a car and be secured by means of the wings to the body of said device.

6. A device of the class described comprising a member having an upright portion adapted to extend across the end of a car and provided with lateral wings of a height sufficient to extend from the sill of a car to the top of the body thereof having openings through which are adapted to extend holdfast devices for securing the device in position, and a lateral member arranged to inclose the end sill of said car also provided with lateral wings adapted to be secured to the body of said device.

7. A device of the class described comprising a member having an upwardly-extending portion arranged to extend across the end of a car provided with lateral wings to lap the sides of a car having openings through which are adapted to extend holdfast means for securing the device in position, said upwardly-extending portion being provided with a laterally-extending flange to cover an extension of the car body, and a member arranged to extend longitudinally of the end sill and be secured at its ends to the body portion of said device.

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

HARVEY E. LIND.

Witnesses:

WM. BUSHONG,
W. M. TRIPCONY.