

Sept. 1, 1942.

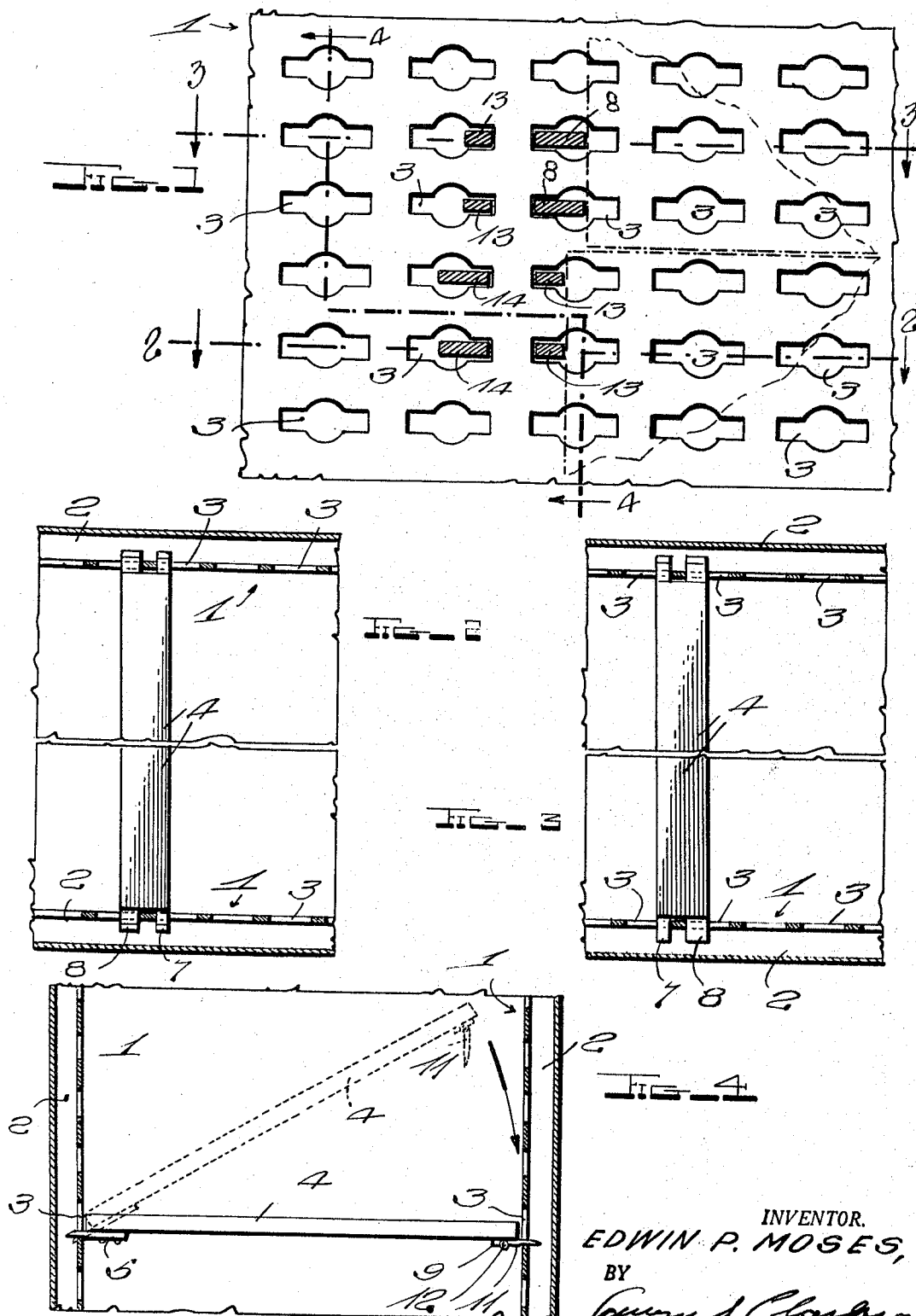
E. P. MOSES

2,294,795

BOX CAR

Filed March 24, 1942

2 Sheets-Sheet 1



INVENTOR.
EDWIN P. MOSES,
BY
James S. Clark
ATTORNEY

Sept. 1, 1942.

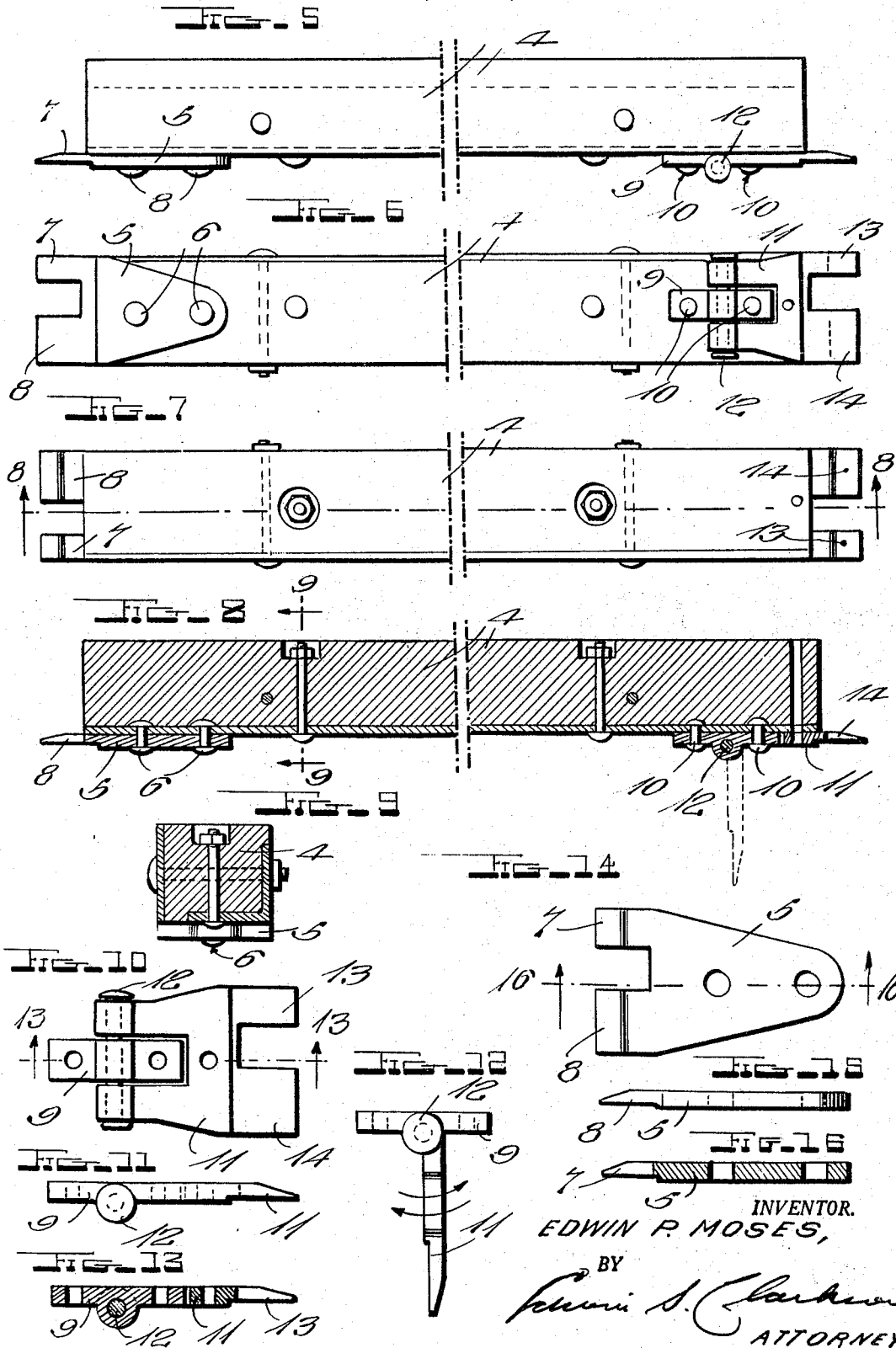
E. P. MOSES

2,294,795

BOX CAR

Filed March 24, 1942

2 Sheets-Sheet 2



INVENTOR.
EDWIN P. MOSES,

BY

Edwin S. Clarkson
ATTORNEY

UNITED STATES PATENT OFFICE

2,294,795

BOXCAR

Edwin P. Moses, White Plains, N. Y., assignor to
The New York Central Railroad Company, a
corporation of New York

Application March 24, 1942, Serial No. 436,047

2 Claims. (Cl. 105—369)

My invention relates, generally, to the improvements in box cars, shown in United States Letters Patent No. 2,030,773, February 11, 1936, reissued September 13, 1938, No. 20,860, but more particularly to improvements in the cross supporting bars therein shown.

Cross bars of the type shown in the above designated patents, at present, have the end attachments, which interengage with the perforations in the walls of the car, located centrally of the bar which permits longitudinal adjustments of $1\frac{1}{2}$ increments, corresponding to the spacing of the perforations in the steel lining of the car walls. It frequently happens that with this arrangement it is necessary to attach strips, or shims, to the side of the cross member to fill up the space between the same and the portion of the lading to be braced against movement in the car. In some instances the total thickness of the shimming approximates $1\frac{1}{2}$ inches.

The object of my invention is to obviate the necessity of placing shims on the cross bar by positioning the attachments at the ends of the cross bar off center; and with this and other objects in view, my invention consists of the parts and combination of parts hereinafter pointed out.

In the drawings:

Figure 1 is a fragmentary elevation of the partition of a freight car provided with my improved loading equipment, the lading to be braced, being indicated schematically in dotted lines.

Figure 2 is a horizontal section on the line 2—2, Figure 1.

Figure 3 is a horizontal section on the line 3—3, Figure 1.

Figure 4 is a vertical transverse section on the line 4—4, Figure 1.

Figure 5 is a side elevation of one of the brace bars.

Figure 6 is a bottom plan view of one of the brace bars.

Figure 7 is a top plan view of one of the brace bars.

Figure 8 is a horizontal section on the line 8—8, Figure 7.

Figure 9 is a transverse vertical section on the line 9—9, Figure 8.

Figure 10 is a bottom plan view of one of the clevises detached.

Figure 11 is a side elevation of Figure 10.

Figure 12 is a similar view with the adjustable tongue in a position, it assumes, in order to permit the locking bar to be lowered and subse-

quently engaged with the perforations in the car lining.

Figure 13 is a sectional view on the line 13—13, Figure 10.

Figure 14 is a plan view of the co-acting tongue. Figure 15 is a side elevation of Figure 14.

Figure 16 is a sectional view on the line 16—16, Figure 14.

The reference numeral 1 designates metal lining sheets secured within the car to the side walls 2 of the car, said sheets being provided with vertical rows of perforations 3 which are, in standard equipment, of equal length and may be staggered as shown in Figure 5 of Reissue Patent No. 20,860.

The cross bar 4, according to my invention, is provided at one end with a plate 5 secured to the underface of the bar by the rivets 6. This plate is provided with projections 7 and 8 which are offset from the center of the plate and are of unequal width, the portions 7 and 8 projecting beyond the ends of the bar, shown in the drawings.

The other end of the bar is provided with a plate 9 secured to the underface of the bar by means of the rivets 10. The tongue 11 is pivotally secured to the plate 9 by means of the pin 12, as clearly shown in Figure 10, said tongue 11 having projections 13 and 14 which are off center with reference to the tongue 11, the projections 13 and 14 being of unequal width.

The pivoted tongue 11 is of a length between its pivot and free end greater than the distance between its free end and the bar.

The method of attaching the bar 4 to the perforated lining 1 is illustrated in Figure 4, the initial position being indicated in dotted lines, in which position the stationary tongues, or projections 7 and 8 are partially inserted in one of the perforations 3. Moving the bar in the direction of the arrow, with the pivoted plate or tongue 11 in the position indicated in dotted lines, the tongue is moved upward by hand as it approaches the perforations 3 and guided into the perforations by the downwardly movement of the bar until it is in the full line position shown in Figure 4.

By placing the tongues, or projections 7, 8, 13 and 14 off center with reference to the axis of the bar 4 it is possible to reduce the longitudinal spacing to $\frac{3}{4}$ of an inch, or $\frac{1}{2}$ of that now standard spacing ($1\frac{1}{2}$ inches) of the perforations 3 by turning the bar around end for end, thus making it possible to place the cross bar closer to the lading and thus reducing to a minimum the

thickness of shimming required. This is illustrated schematically in Figure 1 in which the dot and dash lines indicate the lading. It will be noted in Figure 1 that the broad tongues 8 are in the left-hand end of the perforation 3, while in the lower portion of Figure 1, with the bar 4 turned end for end, the wider portions are in the right-hand end of the slot 3.

These off center tongues or projections make it possible to obtain, with the reversal of the cross bar an adjustment of $\frac{3}{4}$ of an inch, which is of material advantage from the standpoint of proper bracing of the lading with corresponding reduction in the requirement for shimming.

What I claim is:

1. A supporting cross bar for a box car having perforated wall linings; said bar comprising a body member having forked end spaced projections of unequal width offset from the horizontal medial axis of the bar, at least one of said projections comprising a hinged member at or near one end of the bar to the underside of the bar, to swing toward and from the underside of the bar.

2. In a box car, a car body having supporting surfaces therein mounted vertically in opposed position and spaced relation to each other, and each having vertical rows of perforations therein, and an adjustable supporting member bridging the space between said surfaces and having end projections offset from the center horizontal axis of said member to engage selected perforations, in said surfaces, at least one of the projections comprising a hinged tongue at or near one end to the under side of the bar, by a pivot extending transversely the bar to swing toward and from the underside of the bar, said tongue being of a length between the pivot and free end greater than the distance between its free end and the end of the bar, and having its free end consisting of spaced end portions differing in width and offset from the horizontal forked off center to provide spaced engaging elements to engage spaced perforations of the supporting surface engaged thereby.

EDWIN P. MOSES.