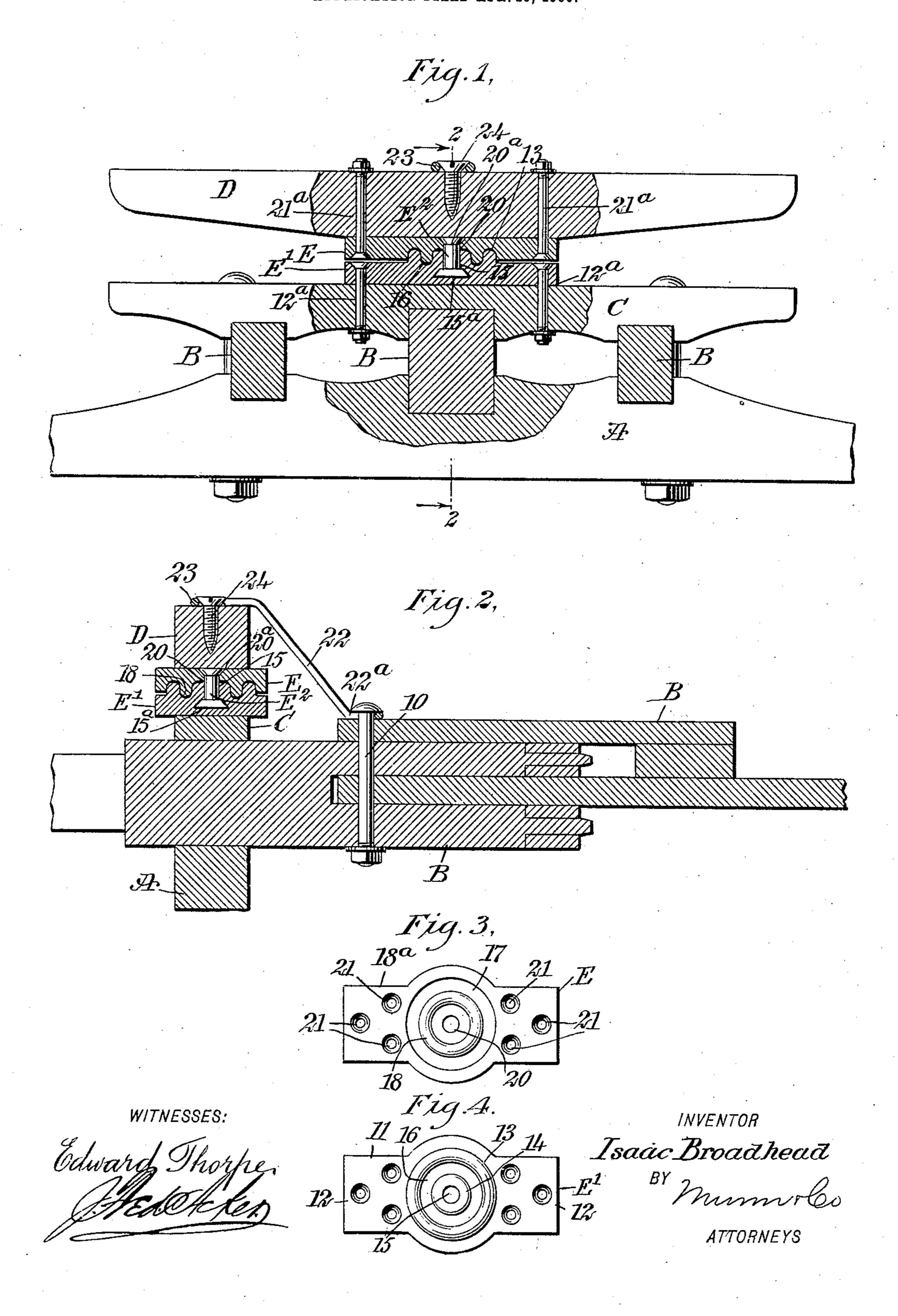
I. BROADHEAD. BOLSTER PLATE FOR VEHICLES. APPLICATION FILED APR. 25, 1906.



UNITED STATES PATENT OFFICE.

ISAAC BROADHEAD, OF EAST BRANCH, NEW YORK, ASSIGNOR TO HIMSELF AND WILLIAM W. BAXTER, OF EAST BRANCH, NEW YORK.

BOLSTER-PLATE FOR VEHICLES.

No. 868,407.

Specification of Letters Patent.

Patented Oct. 15, 1907.

Application filed April 25, 1906. Serial No. 313,594.

To all whom it may concern:

Be it known that I, Isaac Broadhead, a citizen of the United States, and a resident of East Branch, in the county of Delaware and State of New York, have in-5 vented a new and useful Bolster-Plate for Vehicles, of which the following is a full, clear, and exact description.

The invention relates to an improvement in vehicles, and the purpose of the invention is to provide a novel 10 construction of bolster plates for the running gear of wagons, particularly lumber wagons, whereby the bolster is held rigid and the use of the king bolt is dispensed with, which latter article greatly impairs the strength of the axle, and whereby also the bolster can 15 not be accidentally separated from the sand bar.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth and pointed out in the claims.

Reference is to be had to the accompanying drawings 20 forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a sectional side elevation of the forward axle of a vehicle and accompanying parts; Fig. 2 is a 25 vertical section taken practically on the line 2—2 of Fig. 1; Fig. 3 is a bottom plan view of the plate adapted for attachment to a bolster; and Fig. 4 is a plan view of the plate adapted for attachment to a sand bar.

A represents the forward axle of a vehicle, B the 30 forward hounds, C the sand bar and D the forward bolster. E and E' represent the two plates for the bolster, which are to be substituted for the king bolt.

With reference to the plate E' shown in Fig. 4 and adapted to be attached to the sand bar, the said plate 35 consists of a body 11, which is generally rectangular but is widened at its center, and the said body 11 is provided with apertures 12, through which bolts 12a are passed for attaching the plate to the sand bar. At the central portion of the upper face of the body 11 an an-40 nular tongue 13 is formed, the upper edge of which is semi-circular or segmental as shown in Figs. 1 and 2, and within this annular tongue a circular boss 14 is formed integral with the body, and said boss 14 is provided with a circular opening 15 at its center, which 45 opening connects with a more extended and preferably rectangular chamber 15^a in the body portion of the plate. Between the boss 14 and the flange 13 an annular channel or groove 16 is formed.

With reference to the plate E adapted for attachment 50 to the under face of the bolster D, the said plate E is also enlarged at its center, and the body 18a of the plate

is otherwise rectangular and is provided with apertures 21 adapted to receive bolts 21a which enter or pass through the bolster D. At the central or enlarged portion of the plate E on the inner face of said plate, an 55 annular groove 17 is produced, and around the central portion of the plate within the said groove an annular rib 18 is formed, having its edge also round or segmental; and at the central portion of the space surrounded by the rib or tongue 18 a circular opening 20 is formed, 60 having a countersunk upper portion 20a. The opening 20 extends through the plate E and that portion of the opening 20 below the counter sink is of the same diameter as the opening 15 in the plate E'. The openings 15 and 20 register when the plates E and E' are brought 65 together. The plates E and E' are pivotally connected. by a pivot pin E² which is cast directly in the registering openings 15 and 20 and the chamber 15a and countersink 20a, the liquid metal employed being a composition which will form or solidify free of the walls of the 70 openings in which it is poured, so that while the two plates are securely connected one is practically free to turn upon the other.

When the plates are thus connected the tongues of the plate E' enter the grooves in the plate E, and the 75 projections or tongues in the plate E enter the grooves in the plate E', so that one plate will have guided movement upon the other.

It is evident that under the aforesaid construction of bolster plates the bolster can not become discon- 80 nected from the sand bar or the plates separated until the pin E² is purposely beheaded.

In the drawings I have illustrated the pivot bolt 10 as connecting the forward end of the reach with the forward hounds, and I have further illustrated a brace bar 85 22 having an eye 22^a at its rear end through which the bolt 10 passes; and this brace bar 22 is provided with an eye 23 at its forward end, which eye rests upon the central upper portion of the bolster, and a bolt 24 is passed through the said upper eye 23.

Having thus described my invention, I claim as new, and desire to secure by Letters Patent,—

In vehicles, bolster plates, said plates being provided with annular grooves and tongues or ribs, the tongues or ribs of one plate being adapted to enter the grooves 95 in the opposing plate, and a connecting pivot pin loose in the said plates but cast therein.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ISAAC BROADHEAD.

90

Witnesses:

LE ROY S. MALLORY, CORA B. DENIO.