J. JACOBSEN.

BALLAST TRIMMER.

APPLICATION FILED JAN. 22, 1915.

1,167,900.

Patented Jan. 11, 1916.

2 SHEETS—SHEET 1.

Fig. 2

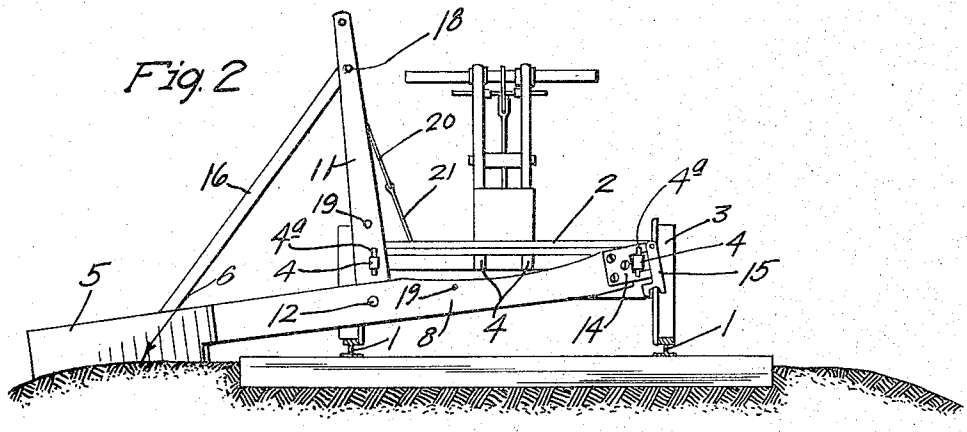


Fig. 3

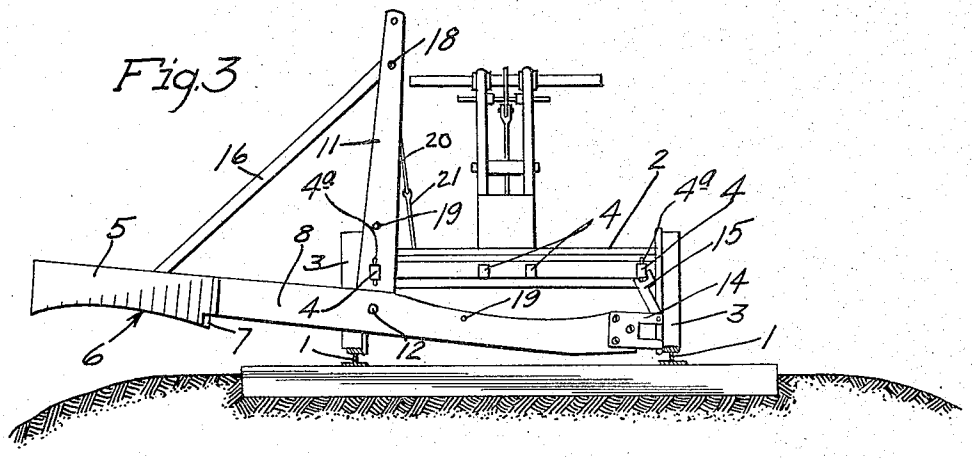
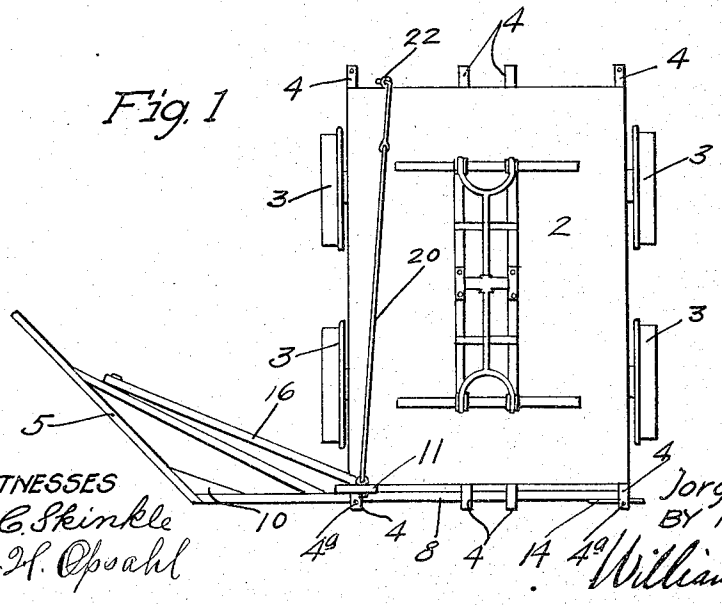


Fig. 1



WITNESSES

E. C. Skinkle

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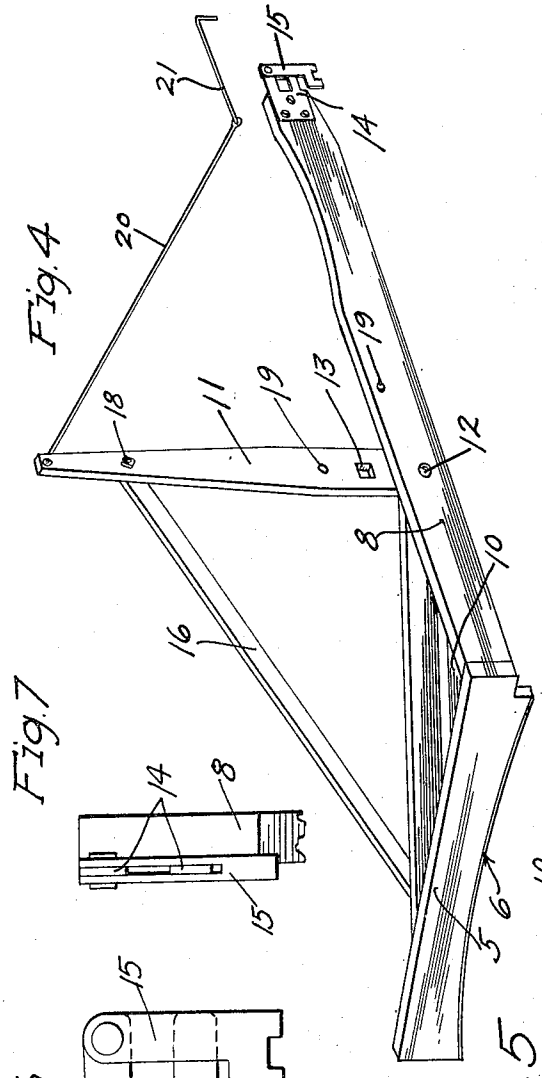

Fig. 4

Fig. 7

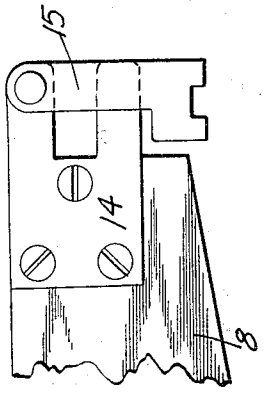

Fig. 6

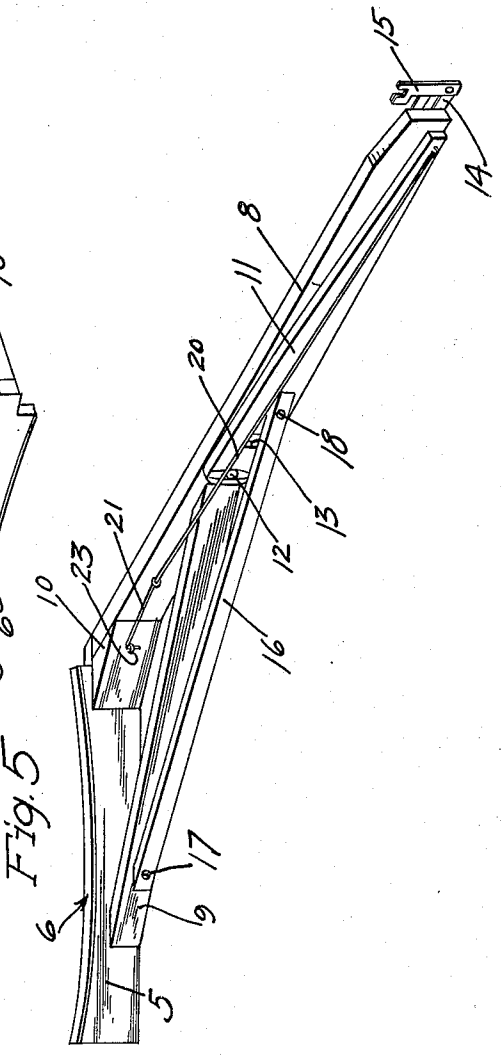

Fig. 5

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UNITED STATES PATENT OFFICE.

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BALLAST-TRIMMER.

1,167,900. Specification of Letters Patent. Patented Jan. 11, 1916.

Application filed January 22, 1915. Serial No. 3,743.

To all whom it may concern:

Be it known that I, JORGEN JACOBSEN, a citizen of the United States, residing at Halma, in the county of Kittson and State of Minnesota, have invented certain new and useful Improvements in Ballast-Trimmers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to "ballast trimmers"; and to this end, it consists of the novel devices and combinations of devices hereinafter described and defined in the claims.

In the accompanying drawings which illustrate the invention, like characters illustrate like parts throughout the several views.

Referring to the drawings: Figure 1 is a plan view of a hand car having mounted thereon, in working position, the improved ballast trimmer; Fig. 2 is a front elevation of the same; Fig. 3 is a view corresponding to Fig. 2 with the exception that the ballast trimmer is set in an inoperative position; Fig. 4 is a perspective view of the improved ballast trimmer removed from the hand car; Fig. 5 is a perspective view of the improved ballast trimmer folded and turned upside down; Fig. 6 is a detail view of the adjustable end portion of the crossbeam which carries the scraper blade; and Fig. 7 is an end elevation of the parts shown in Fig. 6.

In the drawings the improved ballast trimmer is shown mounted on a hand car arranged to run on a track 1, but it is, of course, understood that said trimmer may be mounted on a push car or a lorry. Of the parts of the hand car illustrated, it is only necessary to note the platform 2, wheels 3, and the two pairs of laterally and horizontally spaced handle bars 4 at each end of platform 2.

The improved ballast trimming device comprises an oblong scraper blade or board 5, the lower longitudinal edge of which, as shown, is concave, but, of course, may be of any desired form. To this concave edge of the scraper blade 5 is secured a metallic wearing shoe 6. It is also important to note that the inner lower edge of the scraper blade 5 is notched at 7 to permit said scraper blade to clear the adjacent ends of the ties of the track 1, and thereby scrape the roadbed below the upper faces of said ties, which is highly important in order to secure the proper crown to the roadbed to take care of drainage.

The scraper blade 5 is rigidly secured to one end of a horizontal crossbeam 8 and extends in an oblique position with respect thereto, as best shown in Fig. 1. The scraper blade 5 is further secured to the crossbeam 8 by brace bar 9 and filler block 10. A standard 11 is pivotally secured at its lower end to the intermediate portion of the crossbeam 8 by pivot bolt 12, and is adapted to be folded into the plane of said crossbeam, as shown in Fig. 5. An aperture 13 is formed in the standard 11 just above the pivot bolt 12 and through which aperture one of the outside handle bars 4 is adapted to be telescoped for supporting the standard 11 in an upright position. In this position of the standard 11, the crossbeam 8 is supported in a horizontal position below the handle bars 4 with freedom for a limited vertical swinging movement on the pivot bolt 12, transversely of the hand car.

Rigidly secured to the free end of the crossbeam 8 is a metallic plate 14 having a bifurcated end, the prongs of which are adapted to embrace the outer handle bar 4 on the opposite side of the hand car from the standard 11. The handle bar 4, embraced by the prongs of the plate 14, holds the crossbeam 8 in position to support the scraper blade 5 in an operative position, as shown in Fig. 2. To hold the scraper blade 5 in an inoperative position, as shown in Fig. 3, is provided an arm 15, pivoted to the upper prong of the plate 14. The free end of this arm 15 is bifurcated and the prongs thereof are arranged to embrace the handle bar 4, which is embraced by the prongs of the plate 14, when the scraper blade 5 is in an operative position.

Pins 4^a are passed through the outer handle bars 4, outward of the standard 11, plate 14 and arm 15, to thereby hold the improved ballast trimmer against removal from the hand car. The upper longitudinal edge portion of the crossbeam 8, between the pivot bolt 12 and plate 14, is cut away to afford a clearance for the inner handle bars 4. The standard 11 is held in an upright position by the brace bar 16, the lower end of which is pivoted at 17 to the brace 9 and the upper end thereof is detachably secured to said standard 11 by a nut equipped bolt 18. Obviously, by removing the bolt 18, the stand-

ard 11 and brace 16 may be folded into the plane of the crossbeam 8, as shown in Fig. 5, and secured in this position by passing bolt 18 through alined perforations 19 in the crossbeam 8, standard 11 and brace 16. A brace rod 20 extends from the upper end of the standard 11 to the rear end portion of the hand car. The free or rear end of this brace rod 20 is provided with a hook 21, detachably engageable with a staple 22 on the platform 2. When the improved ballast trimmer is folded, the brace rod 20 is held in the plane of the crossbeam 8 by anchoring its hook 21 to a staple 23, driven into the filler block 10.

From the fore-going description, it is evident that the improved ballast trimmer may be very quickly applied in working position to a car, and removed therefrom, and, when not in use may be folded in a compact space and carried on the car. By detachably mounting the ballast trimmer on the handle bars of a car, said ballast trimmer may be very easily shifted from one end of the car to the other, thus reversing the scraper blade 5, making it possible to scrape or trim the roadbed on either side of the track, without turning the car around.

What I claim is:

1. The combination with a car, having at one end, a pair of handle bars, of a ballast trimmer comprising a crossbeam intermediately and pivotally supported from one of said handle bars for vertical movement, a scraper blade carried at one end of said beam, and means for securing the free end of said beam to the other of said handle bars in different vertical adjustment.

2. The combination with a car, having at one end, a pair of handle bars, of a ballast trimmer comprising a crossbeam, a standard pivotally secured to the intermediate portion of said crossbeam, a scraper blade carried at one end of said beam, said standard being secured to one of said handle bars, and means for securing the free end of said beam to the other of said handle bars in different vertical adjustment.

3. The combination with a car, having at one end, a pair of handle bars, of a ballast trimmer comprising a crossbeam, a standard pivotally secured to the intermediate portion of said crossbeam, a scraper blade carried at one end of said beam, said standard being secured to one of said handle bars, means for securing the free end of said beam to the other of said handle bars in different vertical adjustments, and braces detachably connecting said standard to said car and scraper blade.

In testimony whereof I affix my signature in presence of two witnesses.

JORGEN JACOBSEN.

Witnesses:
O. P. BECKEN,
K. L. SPILDE.