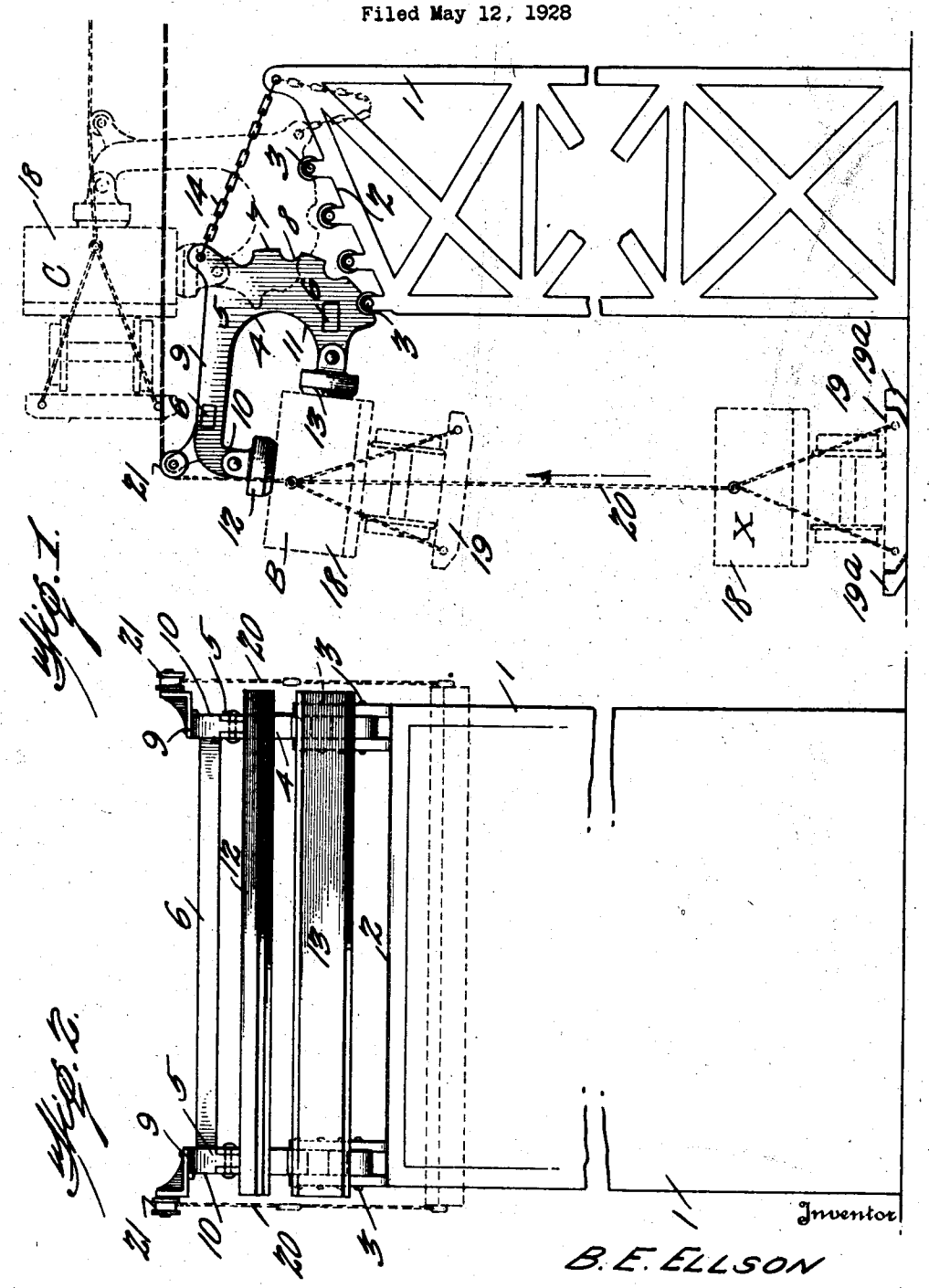
Feb. 26, 1929. 1,703,766

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APPARATUS FOR TIPPING AND DISCHARGING RAILWAY CARS

Filed May 12, 1928



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Patented Feb. 26, 1929. 1,703,766

UNITED STATES PATENT OFFICE.

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APPARATUS FOR TIPPING AND DISCHARGING RAILWAY CARS.

Application filed May 12, 1928, Serial No. 277,282, and in Great Britain February 1, 1927.

This invention relates to an apparatus for tipping and discharging railway cars sufficiently to invert the car and discharge the contents thereof.

The invention has for its object to provide simplified means for easily and securely supporting the car during the tilting operation.

According to the invention, a cradle or frame is provided, same being adapted to engage with and support the car upon one side and the top during the tilting operation, the said cradle being arranged to rock or roll along a predetermined inclined path until the supported car is inverted and its contents discharged, after which the cradle is returned to its normal position and the empty car is lowered to the tracks. The car may be inserted into the cradle by any suitable means while it will be seen from the description hereinafter given and the drawing accompanying same, that the cradle may readily be mounted at any required position above the railway track so as to allow of the car being hoisted to a desired height before tilting and discharge occur.

In the drawing:

Fig. 1 is a side elevation of my improved tilting apparatus, showing a car in dotted lines drawn up into position to be tilted by the tilting apparatus.

Fig. 2 is a front elevation of the same, the car being omitted.

1 indicates conventionally a frame, on which the tilting apparatus is mounted. The top of the frame inclines upwardly as at 2 and is provided with two rows of spaced apart pins 3.

4 indicates a cradle, comprising end pieces 5 and connecting bars 6. Each end piece comprises a body portion which is rounded on one edge to form a rocking surface 7, which is provided with notches 8, adapted to cooperate with the pins 3 in the operation of tilting a car. Extending from the body portion is an elongated arm 9, having its free end extended at right angle as at 10, and spaced from said arm 9 and extending from the body portion is a short arm 11. Pivotally mounted on the angle portions 9, 9, of the two end pieces is a transverse bar 12, adapted to engage the top of a car, while pivoted to the outer end of the short arm is a transverse bar 13, arranged at right angle to the bar 12 and adapted to engage the side of a car.

The cradle is limited in its forward movement by a cable 14, secured at its ends to the cradle 4 and the frame 1, as shown.

The railway car 18 to be tilted and dumped is run on a platform 19, which seats in ways 19^a in line with the track, the platform being connected by cables 20, passing over pulleys 21, on the cradle to a source of power (not shown).

In operation, a car is run on the platform, as shown in dotted lines at X in Fig. 1, then by applying power to the cable, the car is elevated to the cradle as shown to the position shown in dotted lines at B in Fig. 1.

After the car is seated in the cradle, continued pull on the cable rotates the cradle on its rockers, the notches 8 engaging the pins 3. The rocking motion continues until the car is inverted, as shown in dotted lines at C, and the load is discharged.

After the load is discharged, pull on the cable is released, and the cradle rolls back to normal position and the car is likewise lowered to the track line.

It is to be noted that the pivoted bars 12 and 13, readily accommodate themselves to the side and top of the car, consequently the cradle firmly grips the car and insures of it being rigid with the cradle in the tilting operation.

What I claim is:

In a tipping apparatus, the combination with a loading frame inclined at the top, spaced apart transverse pins on the inclined top of the frame, a cradle comprising ends curved at the edges and formed with notches adapted to engage the transverse pins, the end pieces having short extended arms on one side and elongated arms extending from the opposite sides parallel with the short arms, a bar pivoted to the outer end of the elongated arms to engage the top of the body of a vehicle, a bar pivoted to the outer ends of the short arms to engage the side of a vehicle body, and means for bodily lifting a vehicle to engage the bars and subsequently rotate the cradle on the inclined top of the frame to dump the load carried by the vehicle.

In testimony whereof I have hereunto signed my name.

BERNARD EDMUND ELLSON.