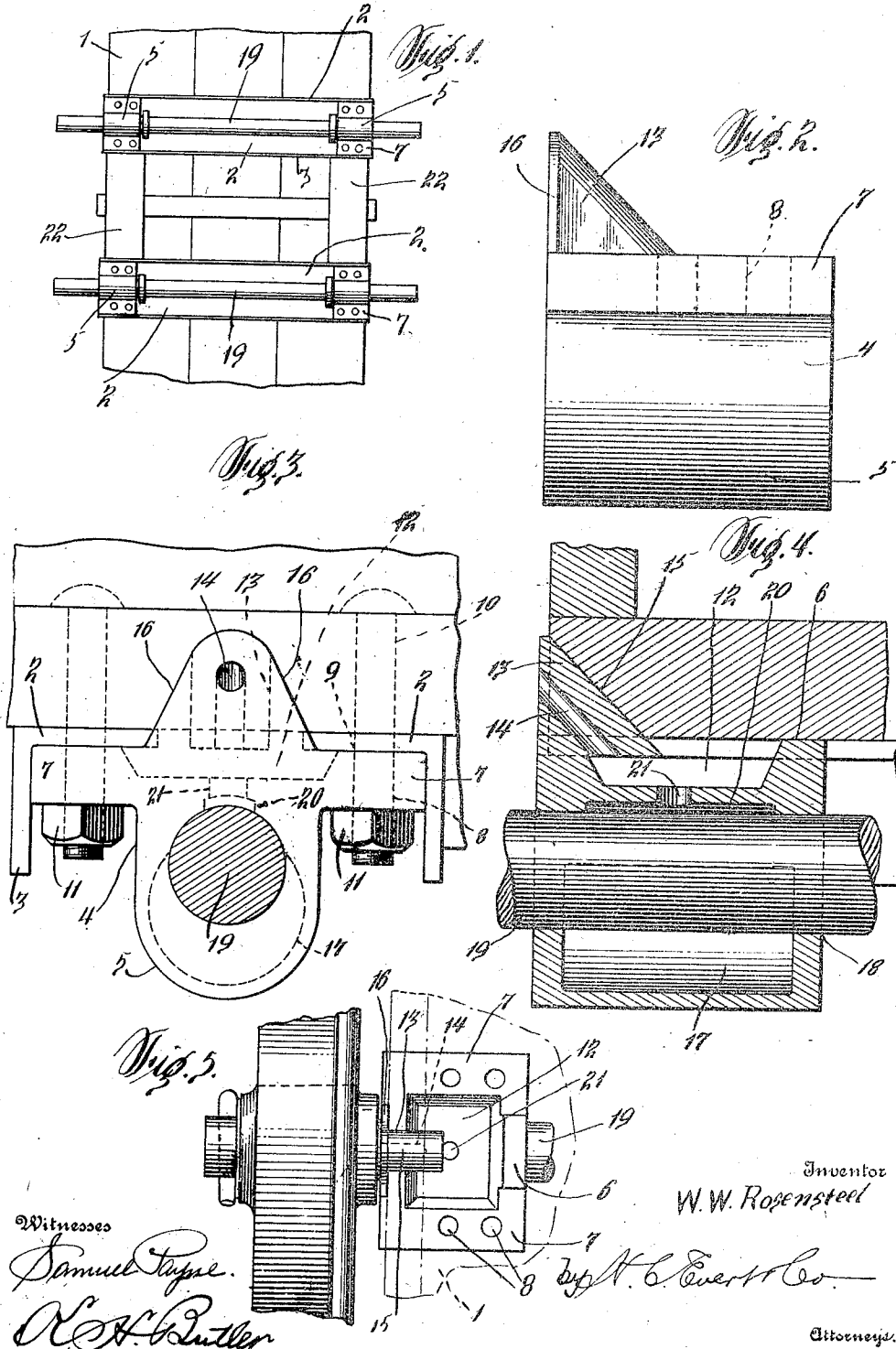


W. W. ROSENSTEEL.
MINE CAR TRUCK.
APPLICATION FILED AUG. 12, 1909.

944,280.

Patented Dec. 28, 1909.



UNITED STATES PATENT OFFICE.

WILLIAM W. ROSENSTEEL, OF CALDWELL, OHIO.

MINE-CAR TRUCK.

944,280.

Specification of Letters Patent. Patented Dec. 28, 1909.

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To all whom it may concern:

Be it known that I, WILLIAM W. ROSENSTEEL, a citizen of the United States of America, residing at Caldwell, in the county of Noble and State of Ohio, have invented certain new and useful Improvements in Mine-Car Trucks, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to mining cars, and more particularly to the journal boxes of such cars employed for revolutely supporting the axles.

The object of my invention is to provide the body of a mining car with journal boxes having lubricant reservoirs or chambers adapted to insure a steady and non-frictional rotation of axles employed for supporting the car, said boxes being arranged and constructed whereby a lubricant can be applied to the axles without removing said axles or the revoluble wheels thereof.

Another object of this invention is to provide the bottom of a mining car with transverse stiffening and strengthening reinforcements which also will serve as housings for journal boxes, preventing the journal boxes from getting out of alinement during the operation of the car.

A further object of this invention is to provide a simple and durable journal box wherein the use of brasses and Babbitt metal is dispensed with, and a free distribution of lubricant employed to obtain an easy movement of an axle within the journal box.

With the above and other objects in view, the invention consists in the novel construction, combination and arrangement of parts to be hereinafter described in detail and then claimed.

Referring to the drawing forming a part of this specification like numerals of reference designate corresponding parts throughout the several views, in which:—

Figure 1 is a bottom plan of a portion of a car constructed in accordance with my invention, Fig. 2 is an enlarged elevation of a detached journal box, Fig. 3 is a front elevation of the same, showing the journal box secured to a portion of a car, Fig. 4 is a longitudinal sectional view of a journal box, and, Fig. 5 is a plan of the journal box showing a portion of a car in dotted lines.

To put my invention into practice, I provide the bottom planks 1 of a mining car with two sets of transverse parallel angle

bars 2, the bars of each set being spaced a suitable distance apart, whereby the depending flanges 3 thereof will provide substantially a channel extending from one side of the car to the opposite side.

Arranged between the flanges 3 of each set of bars at the side edges of the car are journal boxes, each box comprising an oblong structure 4, having a rounded or semi-cylindrical bottom 5 and a flat top 6. The sides of the structure 4 at the top 6 are provided with longitudinal flanges 7, and the distance from the outer edge of one flange to the outer edge of the opposite flange corresponds to the distance between the flanges 3 of each set of angle bars 2, whereby the journal boxes can be fitted between said flanges. The flanges 7 are provided with vertical openings 8 adapted to aline with similar openings 9 in the angle bars 2, whereby bolts 10 can be mounted in the bottom planks 1 of the car to extend through the openings 9 and 8 and be provided with nuts 11 for holding the journal boxes and angle bars in engagement with the bottom of the car. The top of the structure 6 is provided with an oblong recess 12 and at the outer end of said structure with an enlargement 13 having the rear end thereof overhanging the recess 12. The enlargement 13 is triangularly shaped in longitudinal section and is provided with an angularly disposed port 14 establishing communication between the outer end of the enlargement 13 and the recess 12. The port 14 is parallel with the hypotenuse edge of the triangular enlargement, and in order that the journal boxes can be secured to the bottom of the car, as previously described, the outer edges of the side planks 1 are cut away, as at 15 to provide clearance for said enlargement. The outer end of the enlargement is flanged, as at 16 to extend over the outer edges of the side planks 1, this construction being best shown in Fig. 3.

The structure 4 has the bottom thereof provided with a cylindrical lubricant reservoir or chamber 17, and said structure is provided with a longitudinal opening 18 for an axle 19, said opening being partially formed by the reservoir or chamber 17, and extending through the central portion of the structure above the reservoir or chamber 17. The top wall of the opening 18 is provided with an oblong recess 20, and through the medium of a vertical opening 21 establishes

communication between the recess 12 and the reservoir or chamber 17. The reservoir or chamber 17 is filled with a lubricant through the medium of ports 14 and 21, and recess 12 and 20, and with the axle 19 rotating, the motion of the axle within the reservoir or chamber 17 has a tendency to agitate the lubricant and direct part of the same into the recess 20, whereby the entire surface of the axle 19 within the reservoir or chamber 17 and the recess 20 will be thoroughly lubricated. The lubricant then spreads over that portion of the axle contacting with the journal box, thus insuring an easy running of the mining car.

The sets of angle bars 2 are braced and spaced apart by blocks 22 suitably secured to the bottom of the mining car, these blocks preventing lateral displacement of the angle bars, in consequence of which the journal box will be maintained in proper alinement.

Waste or similar matter can be placed either in the reservoir 17 or the recess 12, the latter being preferable, and the positioning of the waste is accomplished before the journal box is secured to a car and before the axle 19 is placed therein.

While in the drawing there is illustrated a preferred embodiment of my invention, it must be understood that the structural elements thereof can be varied or changed, as to the size and shape, without departing from the spirit of the invention.

Having now described my invention, what I claim as new, is:—

In combination, a car bottom, two sets of transversely-extending angle bars arranged against the lower face of the bottom of the car and with the angle bars of each set spaced from each other, journal boxes arranged between the ends of the angle bars of each set and each provided with a lubricant reservoir and furthermore with a longitudinally-extending opening, axles extending through the openings of the journal boxes and said reservoirs, the top wall of said reservoir being recessed and arranged in proximity to said axles, each of said journal boxes having its outer face at the top thereof provided with a recess communicating with the first-mentioned recess by a vertically-disposed contracted opening, and a vertically-disposed enlargement carried by the end of each of said journal boxes at the top thereof and extending partly over the recess in the outer face of the box, said enlargement having an inclined port therein opening into the recess in the top of the journal box at one end of said recess.

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

WILLIAM W. ROSENSTEEL.

Witnesses:

A. M. MORRIS,
J. C. ROBINSON.