

T. DONOHUE.
MINE CAR.

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1,010,738.

Patented Dec. 5, 1911.

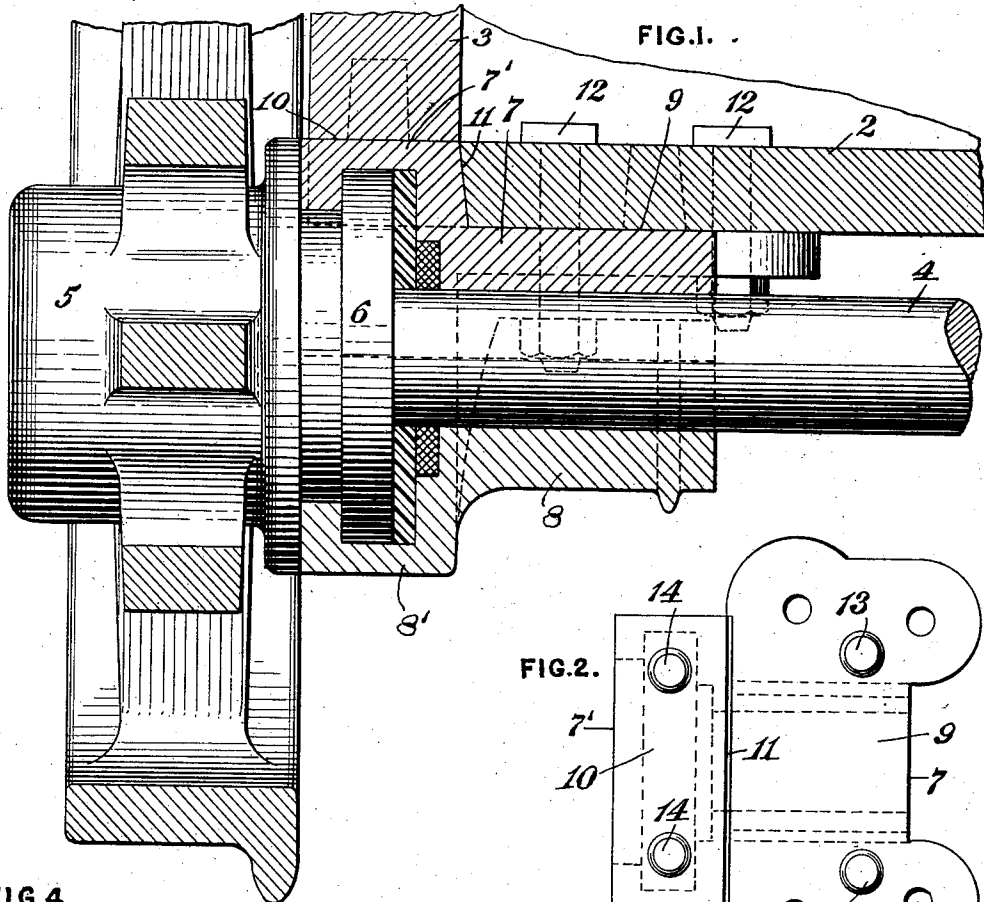


FIG. 2.

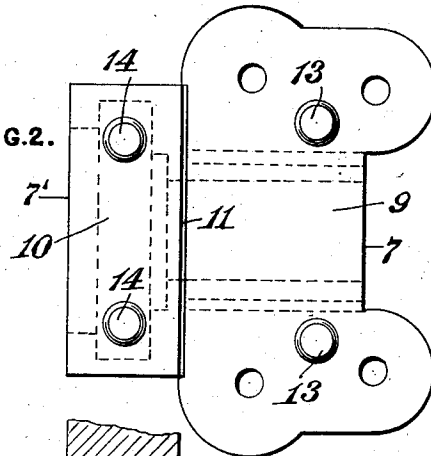


FIG. 4.

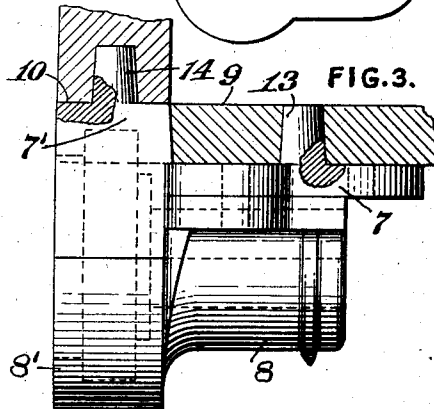
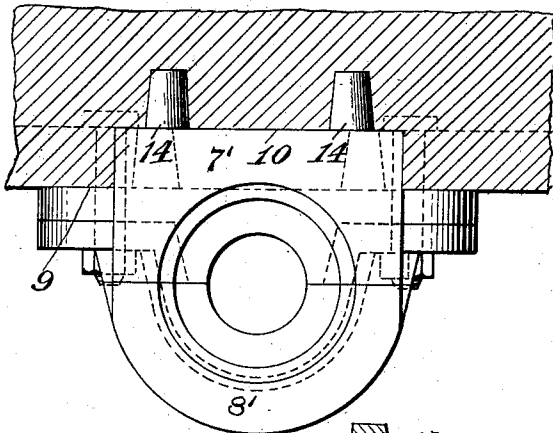
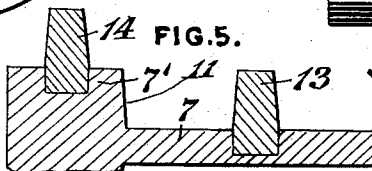


FIG. 5.



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MINE-CAR.

1,010,738.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, THOMAS DONOHUE, a resident of Edgewood Park, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Mine-Cars, of which the following is a specification.

This invention relates to a wheel and axle mounting for mine cars, and has particular reference to certain improvements in the constructions shown in patents granted to me November 2, 1909, No. 938,988, also on June 7, 1910, No. 960,852. A characteristic of each of my patented constructions and of the present improvement is the two-part bearing secured to the car body and serving the two-fold purpose of a bearing for the axle and for confining the wheel on the axle. To accomplish this last named purpose the outer portions of the bearing parts are enlarged to embrace a shouldered extension of the wheel. Heretofore, this enlargement has been located entirely outside the lines of the car body, thus spacing the wheels and car body apart with the body narrower for wheels and trucks of given gage than though the wheels were close to the body. Also in the former designs the construction is not as secure as it might be for permanently uniting the bearing and body, especially under the hard and rough usage to which mine cars are put.

The present improvement is designed to correct the deficiencies in the former designs by locating the bearing enlargement within the lines of the car body so that the latter is widened out almost to the inner faces of the wheels, and the portion of the enlargement carried by the upper section of the bearing is utilized to define the corner angle between the car bottom and the side wall, with the corner of the body recessed to admit the bearing enlargement and form an interlocking connection where- by the body and bearing are permanently held for withstanding the rough usage to which mine cars are subjected. A further purpose is to provide the surfaced top face of the bearing with upwardly projecting lugs which enter the body and still further augment the interlocking hold.

In the accompanying drawings, Figure 1 is a longitudinal section of the bearing in position on the car body, and Fig. 2 is a top plan of the surfaced upper section of the bearing. Fig. 3 is a side elevation of the

bearing, and Fig. 4 a front elevation. Fig. 5 is a detail of a modified form of bearing lug.

Referring to the drawings, 2 designates the bottom of the car body, and 3 one of its vertical sides. 4 is the axle, and 5 the wheel hub shouldered on its inner side at 6 and confined by the two-part bearing secured to the car body, all as shown and described in my former patents, 7 indicating the upper section of the bearing, and 8 the lower section, with the outer portions of the sections enlarged at 7' and 8', respectively, for embracing and confining the flanged hub extension 6.

In the present adaptation, the top of section 7 is formed with a flat surface 9, and the top of enlargement 7' is similarly surfaced at 10 to form seats for the car body, the corner of the latter being recessed upwardly to admit enlargement 7', with shoulder 11 which separates surfaces 9 and 10 defining the inner or corner angle of the body. The bearing enlargement 7' is thus located in the plane of car side 3, and the top surface of the enlargement together with the corresponding surface of part 7 provide the flat bearing faces for side 3 and bottom 2, respectively. The offset defined by shoulder 11 preferably corresponds to the thickness of bottom 2 which facilitates accurate fitting together of the parts.

While the two-part bearing is secured to the body by bolts 12, I also provide top face 9 with the pin-like upwardly projecting lugs 13 which enter bottom 2, and top surface 10 with similar pins 14 which project upwardly into side 3, thus holding the bearing accurately and permanently in place even if the hold of bolts 12 were to become somewhat loose. Pins 13 and 14 may be formed integral with the bearing, as in Fig. 3, or may be formed separately and fixed in sockets in the bearing, as in Fig. 5. A permanent and secure interlock is thus provided between the bearing and car body which greatly strengthens the latter and holds the bearing in fixed position thereon, notwithstanding the rough usage which all mine cars receive. A further advantage is that with the bearings securely held the alinement of the axles is maintained which saves the car from much racking and its wheels from undue wear.

I claim:—

1. The combination with the bottom and

side wall of a mine car body, of a bearing having its top surfaced in two different planes—one higher than the other—with the body bottom seating on the lower surface and the body side seating on the higher surface.

2. The combination with the bottom and side wall of a mine car body, of a bearing secured to the body and having its top surfaced to receive the under faces of the bottom and side wall, and lugs projecting upwardly from the bearing into the side wall.

3. The combination with the bottom and side wall of a mine car body, of a bearing secured to the body and having its top surfaced in different planes to receive the bottom and the side wall, the difference in elevation between the two planes corresponding to the thickness of the bottom, and lugs projecting upwardly from the bearing into the car body.

4. The combination with the bottom and side wall of a mine car body, of a combined axle and wheel bearing formed in upper and lower sections adapted to be bolted to the body, the outer ends of the bearing members being enlarged to confine an extension on a wheel hub, the enlargement at the outer end of the upper section surfaced to form a seat for the side wall of the body and said upper section inwardly from its enlargement surfaced in a plane lower than the top of the enlargement to form a seat for the body bottom, and upwardly projecting lugs on the upper bearing section adapted to project into the body.

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

THOMAS DONOHUE.

Witnesses:

J. M. NESBIT,
F. E. GAITHER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."