

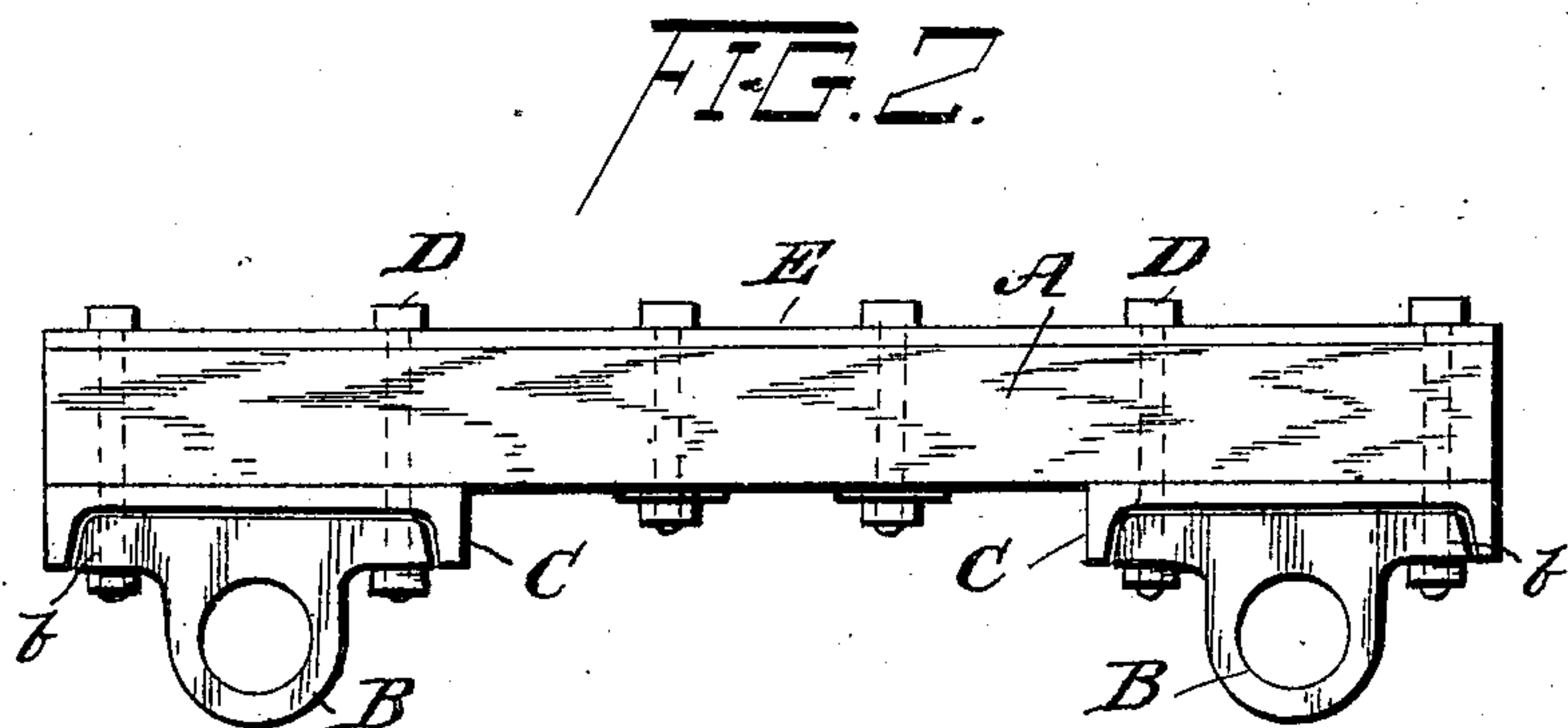
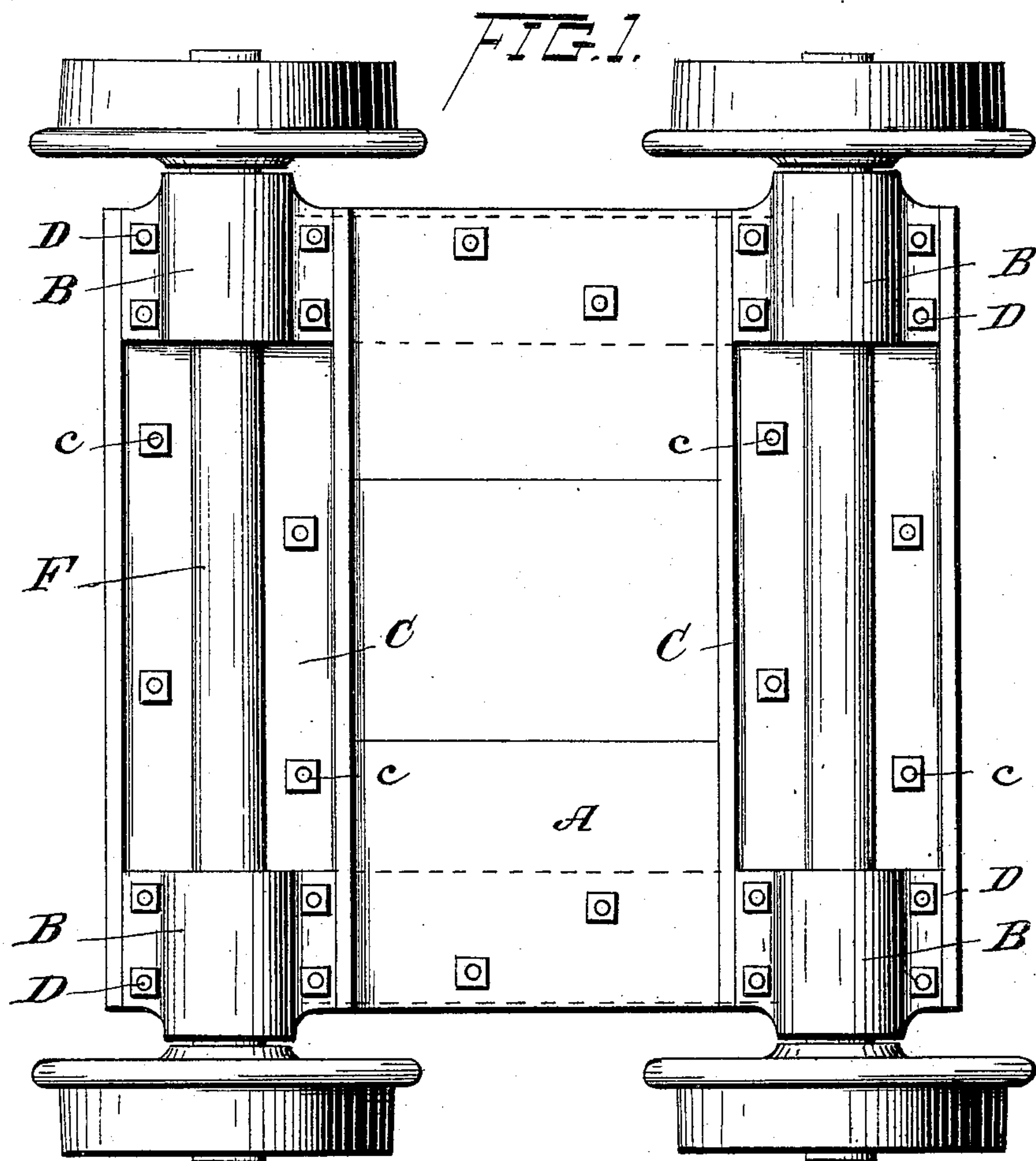
No. 616,793.

Patented Dec. 27, 1898.

A. MAXWELL.  
MINING CAR.

(Application filed Oct. 15, 1898.)

(No Model.)



Witnesses

*Sam R. Turner*

*James R. Mansfield*

Inventor

*Anderson Maxwell*

By:

*Alexander & Sowell*  
Attorneys



# UNITED STATES PATENT OFFICE.

ANDERSON MAXWELL, OF BARNESVILLE, OHIO, ASSIGNOR TO THE WATT MINING CAR WHEEL COMPANY, OF SAME PLACE.

## MINING-CAR.

SPECIFICATION forming part of Letters Patent No. 616,793, dated December 27, 1898.

Application filed October 15, 1898. Serial No. 693,651. (No model.)

*To all whom it may concern:*

Be it known that I, ANDERSON MAXWELL, of Barnesville, in the county of Belmont and State of Ohio, have invented certain new and  
5 useful Improvements in Mining-Cars; and I hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, which form part of this specification.

10 This invention is an improvement in mine-cars, and has especial reference to the means for attaching the axle-boxes to the truck or car, whereby the axle-boxes can be securely fastened and maintained rigidly in proper  
15 alinement.

The invention is particularly designed for cars wherein round axles are employed and journaled in boxes attached directly to the car; and the object of the invention is to  
20 overcome the defects and troubles found in this class of cars as heretofore constructed. In these forms of mine-cars great trouble has been heretofore experienced in keeping the boxes from working loose, thereby permitting  
25 the axles to get out of alinement. This difficulty has been increased because of the warping of the lumber of which the bottom of the car is composed and to which the boxes are fastened. Where green lumber is used, as it  
30 seasons it draws the boxes closer together, and thereby disarranges the alinement, and where full-seasoned lumber is used the converse trouble is experienced in damp mines as the lumber becomes moist and expands or warps,  
35 so as to throw the boxes out of alinement.

My present invention is to prevent the warping of the wood affecting the alinement of the boxes; and the invention consists in the novel construction summarized in the claims  
40 and described in detail in the following specification, reference being had to the accompanying drawings, in which—

Figure 1 shows a bottom plan of a mine-car with the axles and axle-boxes in place in accordance with my invention, and Fig. 2 is a  
45 side view of the bottom of a mine-car with the wheels removed.

The bottom of the mine-car is generally composed of a series of longitudinal wooden  
50 bars A, to which the axle journal-boxes B are ordinarily directly bolted.

In my invention I attach to the wooden bottom A, in line with each axle, a U-shaped bar of channel-iron C, with the flanges downward, this channel-bar being secured in place  
55 by a series of bolts c and being preferably arranged transversely to the wooden bars A and so as to hold the same firmly together.

The boxes B are provided with lateral flanges b, which fit closely in the channel-bars  
60 and by which they can be secured in place within the channel-bars and to the bottom A by means of through-bolts D, as shown in the drawings.

For the purpose of further stiffening the  
65 truck longitudinally-disposed metallic bars E may be arranged on the upper side of the floor of the car and extend from one journal-box to the other at the same side of the car, the through-bolts D transfixing the bars E also,  
70 as shown, so that when the car-bottom is completed it is bonded by longitudinal and transverse bars E and C.

It will be observed that the channel-bars C not only prevent lateral displacement of the  
75 journal-boxes on the car-bottom, but they increase the bearing-surface of said boxes thereon, and they form a rigid bond to prevent the displacement of said boxes in relation to each other in any direction, and as the said bars  
80 C are straight and parallel with the axles if either end of the bar or either box should work loose the boxes are still kept in line, so that the axle journaled therein is not subjected to undue work or strain or twisted by  
85 one box becoming oblique to the other.

While the invention is very simple, its utility is very great. It meets a long-felt want and overcomes the objections heretofore  
90 considered inherent in this class of cars.

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

1. In a mining-car, the combination of the bars secured to the bottom thereof parallel  
95 with the axles, the journal-boxes rigidly secured to the opposite ends of said bars and kept in alinement thereby, and the axles journaled in said boxes, substantially as described.  
100

2. In a mining-car, the combination of the inverted channel-bars secured to the bottom

thereof, the journal-boxes fitted between the flanges of the channel-bar and secured to the opposite ends thereof and kept in alinement thereby, and the axles journaled in said boxes, substantially as described.

3. In a mine-car, the combination of the parallel transverse bars secured to the bottom thereof, the journal-boxes secured to the ends of said boxes and the axles journaled in said boxes; with the longitudinally-disposed metal bars extending from one axle-box to the other, and the through-bolts uniting said longitudinal bars, transverse bars and journal-boxes, substantially as described.

4. In a mine-car, the combination of the parallel transverse channel-bars C secured to

the bottom thereof, the journal-boxes fitted between the flanges of said channel-bars and secured to the ends thereof, and the axle journaled in said boxes; with the longitudinally-disposed metal bars E extending from one axle-box to the other, and the through-bolts D connecting said longitudinal bars, channel-bars and journal-boxes, substantially as described.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

ANDERSON MAXWELL.

In presence of—

C. J. HOWARD,

P. H. LAUGHLIN.