J. BLAIR.

MINING CAR.

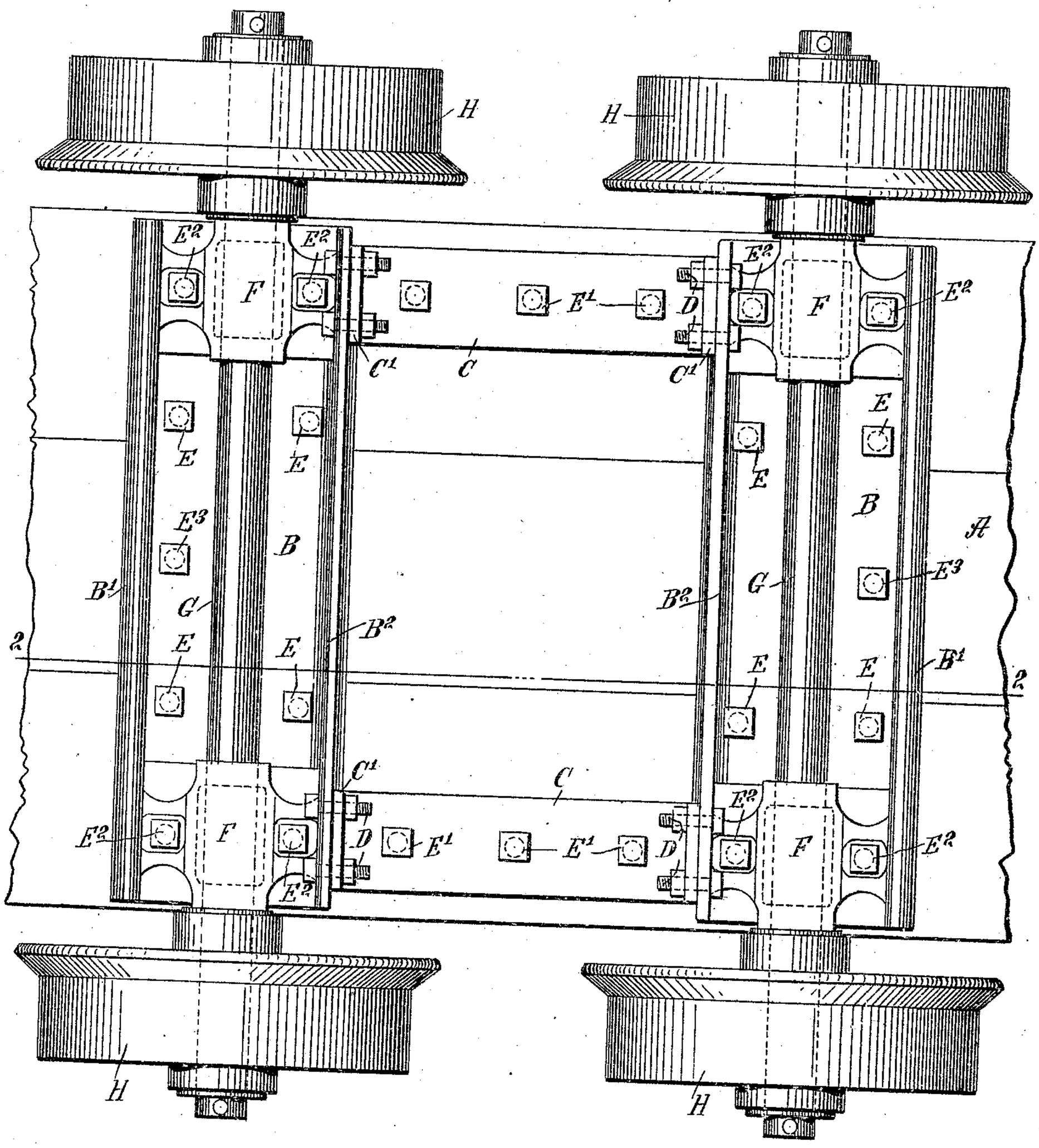
APPLICATION FILED DEC. 14, 1909.

959,294.

Patented May 24, 1910.

2 SHEETS—SHEET 1.

Fig. 1.



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2 SHEETS—SHEET 2.

Fig. 2.

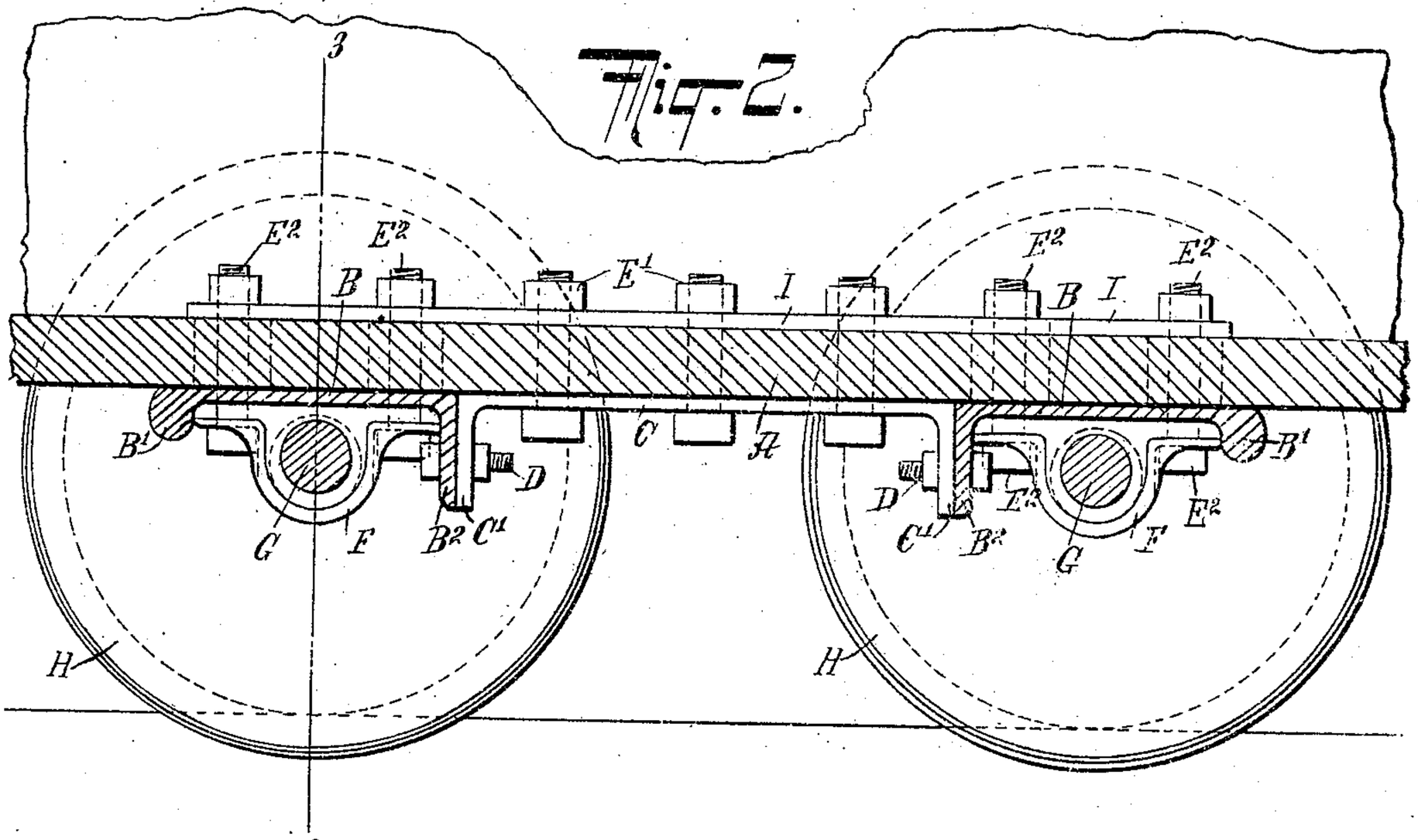


Fig. 3.

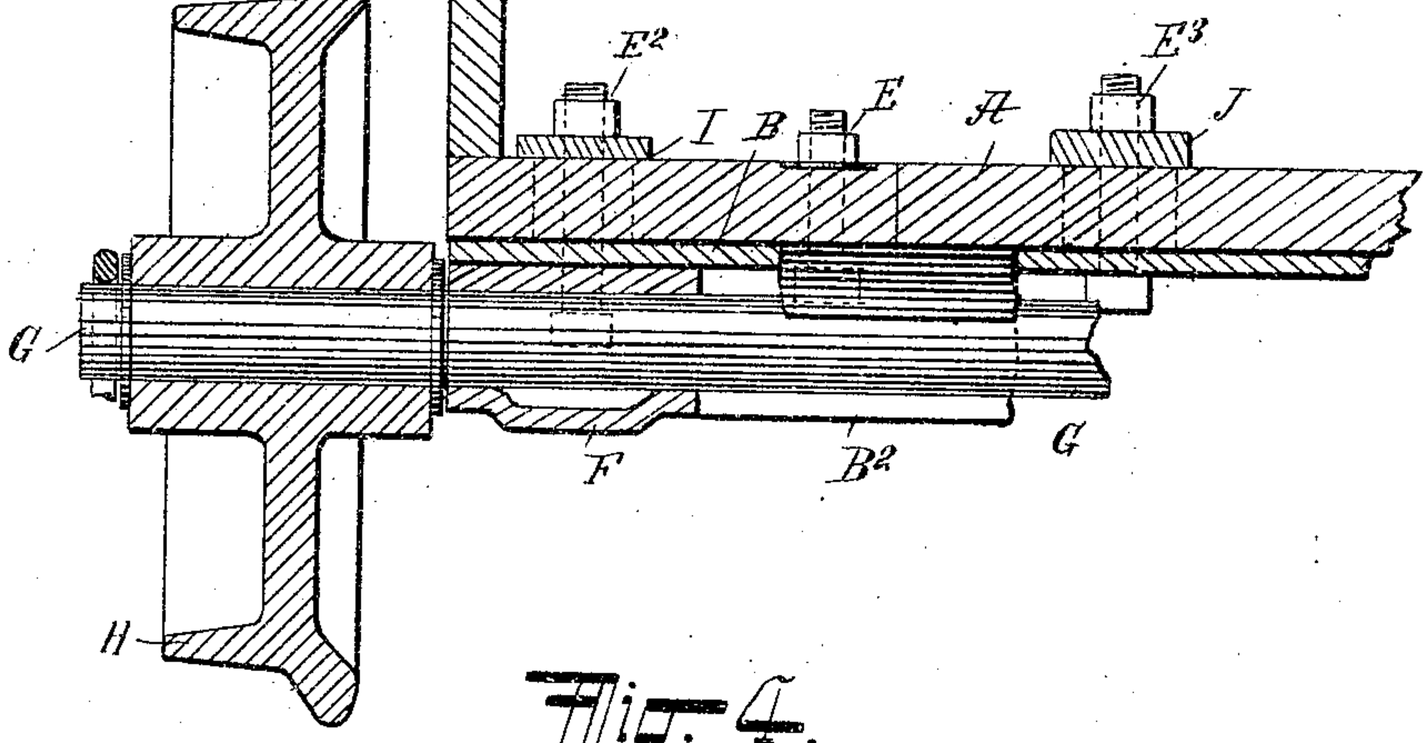
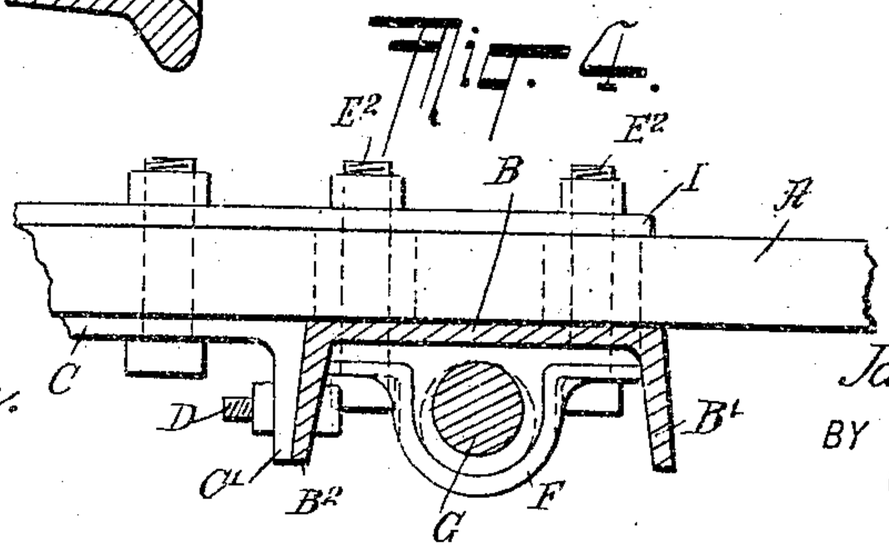


Fig. 4.



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JAMES BLAIR, OF ST. BENEDICT, PENNSYLVANIA.

MINING-CAR.

959,294. Specification of Letters Patent. Patented May 24, 1910.

Application filed December 14, 1909. Serial No. 533,006.

To all whom it may concern:

Be it known that I, JAMES BLAIR, a citizen of the United States, and a resident of St. Benedict, in the county of Cambria and State of Pennsylvania, have invented a new and Improved Mining-Car, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved mining car, arranged to readily withstand the rough usage and jolting of the car when in use, to maintain the axles in a right-angled position relative to the longitudinal center line of the car, with a view to insure proper running of the car and to prevent the car from being twisted out of shape when in use. For the purpose mentioned the car truck is provided with a frame formed of cross plates, having depending flanges at their inner sides, and longitudinal plates having depending flanges at their ends and bolted to the flanges of the cross plates, the upper surfaces of the said plates being flush to form a seat for the bottom of the car body, and which car body is bolted to the said plates.

A practical embodiment of the invention is represented in the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is an inverted plan view of the improved mining car; Fig. 2 is a sectional side elevation of the same on the line 2—2 of Fig. 1; Fig. 3 is a cross section of the same, on the line 3—3 of Fig. 2; and Fig. 4 is a sectional side elevation of a modified form of the mining car, showing the cross plates in the form of ordinary channel irons instead of bulb angle irons, as indicated in Figs. 1 and 2.

The bottom A of the car body is seated and fastened on a frame formed of the cross plates B, B and the longitudinal plates C, C, of which the cross plates B, B are provided at their outer sides with integral depending and rounded off ribs B′, as plainly shown in Fig. 2, while the inner sides of the said cross plates B, B are provided with depending integral flanges B^2, on which fit flanges C′ depending integrally from the ends of the longitudinal plates C, C. The flanges B^2, C′ are fastened together by bolts D, and the upper surfaces of the plates B, B and C, C are flush, to form a seat for the under side of the bottom A to rest on, as will be readily understood by reference to Figs. 2 and 3. In order to fasten the bottom A to the plates B, B use is made of bolts E, and the longitudinal plates C are fastened to the bottom A by bolts E′.

A pair of axle boxes F fit between the rib B′ and the flange B^2 of a plate B, and the said axle boxes are fastened in place on the under side of the plate B by bolts E^2, which also extend through the bottom A, to assist in holding the latter in position on the truck frame. Each pair of axle boxes F accommodates an axle G, provided at its outer ends with the usual wheels H. Bolts E′, E^2 on each side of the car also pass preferably through straps I held on the upper face of the bottom A of the car body, so that the nuts of the said bolts screw against the iron strap instead of the wooden bottom A of the car body. The bolts E are preferably provided under their nuts with washers held on the upper surface of the bottom A (see Fig. 3). A draw bar J overlies the upper surface of the bottom A at the middle thereof, and is fastened in place by a bolt E^3 extending through the draw bar, the bottom A and the corresponding cross plate B, to securely unite the parts with each other.

From the foregoing it will be seen that the axle boxes F are held against shifting in a longitudinal direction by their side edges abutting against the ribs B′ and the flanges B^2, and by forming the truck frame in the manner described and securing the same to the bottom A, it is evident that the axles G are also maintained in a right-angled position relative to the longitudinal center line of the car, thus insuring proper running of the latter without danger of the car body and the truck and axles becoming twisted out of shape, which is liable to occur with the rough usage and jolting to which a mining car is subjected when in use.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

1. A mining car having a truck frame, comprising cross plates provided at their inner sides with depending flanges, longitudinal plates having depending flanges at the ends and abutting against the said cross plate flanges, and means for fastening the flanges together.

2. A mining car having a truck frame comprising cross plates provided at their inner sides with depending flanges, longitudinal plates having depending flanges at

the ends and abutting against the said cross plate flanges and being bolted thereto, the said cross plates and the said longitudinal plates being flush at their upper faces, and a car body having its bottom seated and bolted in place on the said frame plates.

3. A mining car having a truck frame comprising cross plates provided at their inner sides with depending flanges, longitudinal plates having depending flanges at the ends and abutting against the said cross plate flanges, bolts for fastening the said abutting flanges together, axle boxes seated on the under side of the said cross plates and fastened thereto, and car axles journaled in the said boxes and carrying car wheels at their outer ends.

4. A mining car having a truck frame comprising cross plates provided at their inner sides with depending flanges, longitudinal plates having depending flanges at the ends and abutting against the said cross plate flanges, bolts for fastening the said abutting flanges together, axle boxes seated on the under side of the said cross plates and fastened thereto, car axles journaled in the said boxes and carrying car wheels at their outer ends, a car body having its bottom seated on the said frame, and bolts for fastening the said car bottom and frame together, sundry of the said bolts also engaging the said axle boxes to fasten the latter in place on the cross plates.

5. A mining car having a truck frame, comprising cross plates provided at their inner sides with depending flanges, having their outer sides reinforced by integral transverse ribs, longitudinal plates having depending flanges at the ends and abutting against the said cross plate flanges, and means for fastening the flanges together.

6. A mining car having a truck frame, comprising cross plates provided at their inner sides with depending flanges, longitudinal plates having depending flanges at the ends and abutting against the said cross plate flanges, bolts for fastening the said abutting flanges together, axle boxes seated on the under side of the said cross plates and fastened thereto, car axles journaled in the said boxes and carrying car wheels at their outer ends, a car body having its bottom seated on the said frame, bolts for fastening the said bottom and frame together, sundry of the said bolts also engaging the said axle boxes to fasten the latter in place on the cross plates, and a draw bar strap bolted by sundry of the said bolts to the upper face of the bottom of the car body.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JAMES BLAIR.

Witnesses:
M. A. LANTZY,
I. N. RODKEY.