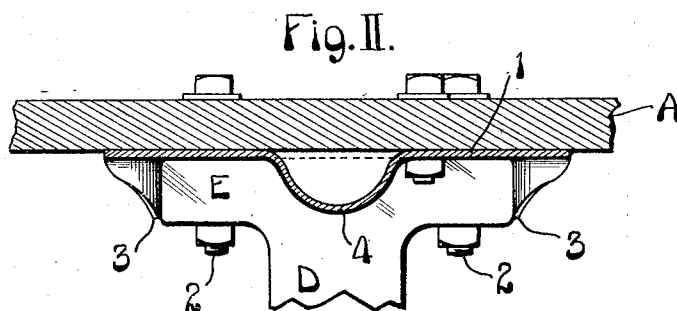
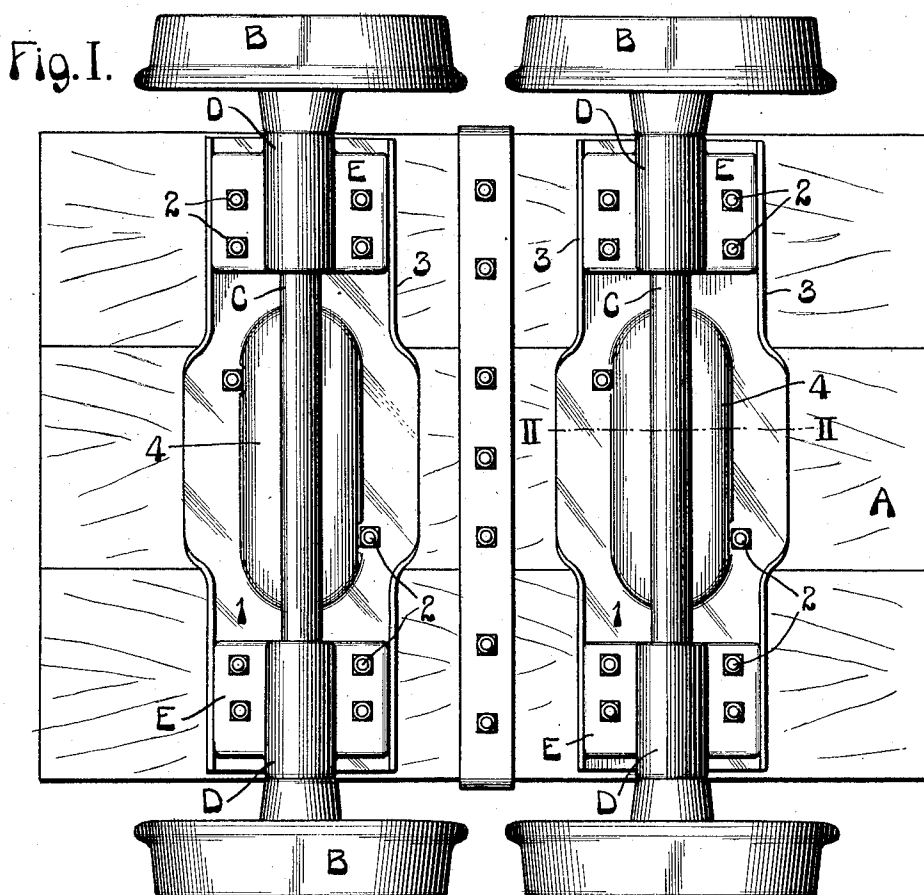


W. M. DUNCAN.
CAR OR TRUCK.
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1,006,369.

Patented Oct. 17, 1911.



Attest
W. J. McCauley
E. B. King

Inventor:
W. M. Duncan
by *Knights & Cook*
Attys.

UNITED STATES PATENT OFFICE.

WILLIAM MILLEN DUNCAN, OF ALTON, ILLINOIS.

CAR OR TRUCK.

1,006,369.

Specification of Letters Patent.

Patented Oct. 17, 1911.

Application filed August 18, 1911. Serial No. 644,734.

To all whom it may concern:

Be it known that I, WILLIAM M. DUNCAN, a citizen of the United States of America, residing in Alton, county of Madison, and State of Illinois, have invented certain new and useful Improvements in Cars or Trucks, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, forming part of this specification.

My invention relates to a four-wheeled car or truck, and more particularly to cars or trucks of the kind commonly employed in mines and termed "mine cars". For the sake of simplicity of description, the improvement will hereinafter be termed a mine car.

The object of the invention is to provide the body of the mine car with transversely arranged axle box receiving plates, flanged in a manner to hold the axle boxes seated therein in alinement with each other, and so constructed at their central portions as to furnish a greater degree of rigidity and reinforcement throughout the intermediate portions of the plates than it is possible to secure by continuing the axle box confining flanges from end to end of the plates.

Another object in addition to that of strengthening and reinforcing the intermediate portion of the plates is to provide the plates with widened central portions, in order that they will support the mine car body throughout a greater expanse longitudinally of the car body.

Figure I is an inverted plan view of a mine car made in accordance with my improvement. Fig. II is a longitudinal section taken partially through the mine car on line II—II, Fig. I.

In the accompanying drawings: A designates the floor of the mine car, and B are the car wheels, fitted to the axles C, the latter of which are mounted in axle boxes D having heads E. The parts just described are such as are common to mine cars in general, and no invention *per se* is herein claimed for them.

1 designates plates seated against the bottom face of the car body floor A and held thereto by bolts 2. These plates are provided at their side edges with downturned flanges 3, between which the heads E of the axle boxes D are arranged, and said heads are held between said flanges by the bolts 2, previously mentioned, which secure the

heads of the axle boxes, as well as the plates 1, to the floor of the mine car body. The side flanges 3 do not extend throughout the length of the plates 1, but only extend toward the centers of the plates from their ends to a sufficient degree to afford braces for the axle boxes that will assist in holding the axle boxes from turning on the plates, and relieve the bolts 2 of strain to which they would be subjected in the absence of the flanges. The plates 1 are widened throughout their central portions, preferably to a degree corresponding to that acquired by having the metal that enters into the side flanges 3 at the end portions of the plates lie in the plane occupied by the bottom faces of the plates and the faces of said side flanges. It will be seen that this widening or broadening of the plates affords much greater transverse plate area throughout the central portion of the plates than would be obtained if the side flanges 3 were continued from end to end of the plates, and that this widening of the plates to more efficiently support the car body floor is derived without detracting from the efficiency of the side flanges by which the axle boxes D are held in the manner explained.

The plates 1 are reinforced and strengthened throughout their central unflanged portions by downwardly extending swells 4, the greatest length of which is preferably longitudinally of the plates. These swells furnish what may be termed "reinforcing ribs", that bulge away from the main planes of the plates 1, and consequently afford marked stiffness and rigidity in the plates. The swells, as will be readily understood, afford ample substitutes for the side flanges that are dispensed with throughout the central portions of the plates and, in fact, afford greater strength than would be acquired by the use of the flanges at the longitudinal centers of the plates, while making it possible to derive the benefit of the widened central portions of the plates, which could not be derived if the side flanges were continued from end to end of each plate.

I claim:—

1. The combination with the floor of a car or truck, of axle box receiving plates secured to said floor, the said plates being provided adjacent their ends with side flanges and having reinforcing swells intermediate of their ends.

2. The combination with the floor of a car or truck, of axle box receiving plates secured to said floor, the said plates being provided adjacent their ends with side flanges and
5 having reinforcing swells extending longitudinally thereof intermediate of their ends.

3. The combination with the floor of a car or truck, of axle box receiving plates secured to said floor, the said plates being provided
10 adjacent their ends with side flanges and having widened central portions provided with reinforcing swells.

4. The combination with the floor of a car or truck, of axle box receiving plates secured
15 to said floor, the said plates being provided

adjacent their ends with side flanges and having widened unflanged central portions provided with reinforcing swells.

5. The combination with the floor of a car or truck, of axle box receiving plates secured
20 to said floor, the said plates being provided adjacent their ends with side flanges and having widened unflanged central portions provided with reinforcing swells extending longitudinally thereof.

WILLIAM MILLEN DUNCAN.

In the presence of—

A. B. STRATTON,

GEO. D. DUNCAN.

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