

A. F. BATCHELDER.
LOCOMOTIVE TRUCK.
APPLICATION FILED DEC. 13, 1912.

1,060,734.

Patented May 6, 1913.

Fig. 1.

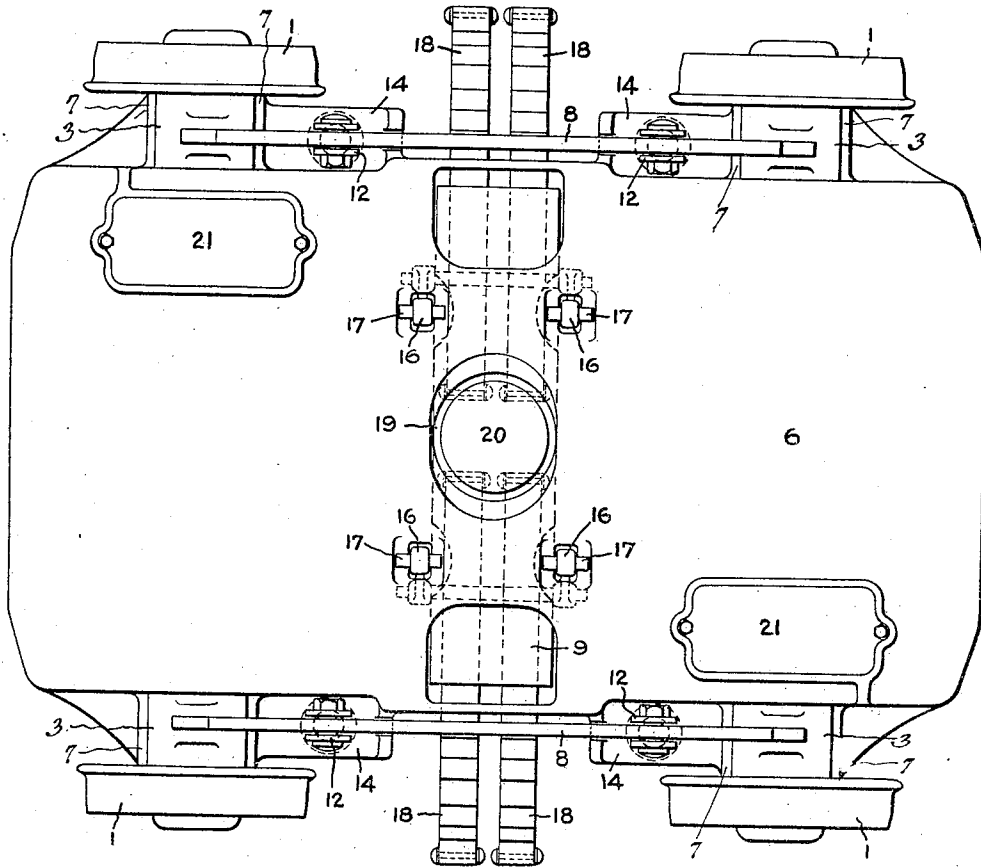
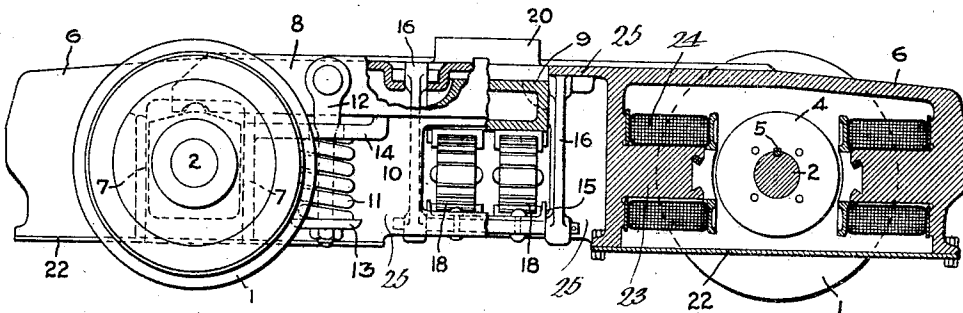


Fig. 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

ASA F. BATCHELDER, OF SCHENECTADY, NEW YORK, ASSIGNOR TO GENERAL ELECTRIC COMPANY, A CORPORATION OF NEW YORK.

LOCOMOTIVE-TRUCK

1,060,734.

Specification of Letters Patent.

Patented May 6, 1913.

Application filed December 13, 1912. Serial No. 736,534.

To all whom it may concern:

Be it known that I, ASA F. BATCHELDER, a citizen of the United States, residing at Schenectady, county of Schenectady, State of New York, have invented certain new and useful Improvements in Locomotive-Trucks, of which the following is a specification.

My invention relates to locomotive trucks and particularly to trucks for electrically propelled cars, and has for its object a novel construction by which the truck may be made light in weight and of minimum height.

The various features of novelty which characterize my invention will be pointed out with particularity in the claims annexed to and forming a part of this specification.

For a better understanding of my invention reference may be had to the following description taken in connection with the accompanying drawing, in which—

Figure 1 is a plan view of a truck embodying my invention, and Fig. 2 is an elevation of the truck of Fig. 1, with parts broken away and in section.

Referring to the drawing which illustrates a four wheel truck, 1 are wheels mounted on axles 2. These axles are journaled in inside journal boxes 3, that is, journal boxes located inside the wheels 1. The motive power for the truck comprises two electric motors having armatures 4 and motor frames 6. The armatures surround the axles 2 and are mechanically connected thereto, as by keys 5. The motor frames are integrally connected together and form a complete truck frame. The journal boxes are slidably mounted in pedestal jaws 7, which are preferably made integral with the motor frames. The motor frames are supported from equalizers 8 which are mounted on the journal boxes between the wheels and the motor frames. A swing bolster 9 is suspended from the motor frames, and fits in a recess 10 in the frames. The motor frames comprise the pole pieces 23 surrounded by field coils 24, the magnet frames connecting the pole pieces, end heads, and webs 25 which integrally connect the magnet frames. The webs 25 form the rectangular opening 10 which extends transversely of the truck. The pedestal jaws 7 are brackets cast on the end heads of the motor frames forming guides in which the journal boxes 3 play in a vertical direction.

The motor frames are supported from the equalizers 8 through springs 11 which are coiled around links 12, suspended at their upper ends from the equalizer. The springs 11 at their lower ends engage spring seats 13 on the links 12 and at their upper ends, spring seats 14 which may be formed integrally with the motor frames, as shown. A spring plank 15 is suspended from the motor frames by swing hangers 16 journaled on pivots 17. The spring bolster 9 is supported on the spring plank by semi-elliptic springs 18.

In order to provide room for the bolster and its supporting means between the motor frames, the recess 10 is provided. A hole 19 is also provided in the motor frame so as to permit to project therethrough the portion 20 of the bolster on which the car platform is mounted. Openings, provided with covers 21, may be provided in the motor frames so that access may be had to the brushes and commutators of the motors. Plates or covers 22 may also be provided for protecting the parts of the motors from dust and dirt.

It will be seen that by integrally connecting the motor frames together and providing these frames, which form the truck frame, with inside journal boxes, the motor frames act as the field structures of the electric motors and also as the truck frame, without the use of any further parts. In this way, a single, light and durable truck may be constructed in which the maximum efficiency of the material used in the truck may be obtained, and in which the truck is of the minimum height above the rails.

What I claim as new and desire to secure by Letters Patent of the United States, is:—

1. In a locomotive truck, wheels, axles therefor, inside journal boxes for said axles, armatures for electric motors surrounding said axles and mechanically connected thereto, motor frames for said armatures integrally connected together and forming a complete truck frame, said journal boxes being slidably mounted in said motor frames, equalizers mounted on said journal boxes between said wheels and said motor frames, means for supporting said motor frames from said equalizers, a swing bolster, and means for suspending said bolster from said motor frames, said motor frames having a recess for receiving said bolster.

2. In a locomotive truck, wheels, axles
therefor, inside journal boxes for said axles,
armatures for electric motors surrounding
said axles and mechanically connected there-
5 to, motor frames for said armatures in-
tegrally connected together and forming a
complete truck frame, pedestal jaws inte-
gral with said motor frames, said journal
boxes being slidably mounted in said jaws,
10 equalizers mounted on said journal boxes
between said wheels and said motor frames,
means comprising links and springs for

supporting said motor frames from said
equalizers, a swing bolster, and means for
suspending said bolster from said motor 15
frames, said motor frames having a recess
for receiving said bolster.

In witness whereof, I have hereunto set
my hand this 12th day of December, 1912.

ASA F. BATCHELDER.

Witnesses:

BENJAMIN B. HULL,
HELEN ORFORD.