G. BRIGHT.

LOCOMOTIVE FRAME.

APPLICATION FILED FEB. 23, 1912.

1,039,691.

Patented Oct. 1, 1912.

Fig. 1.

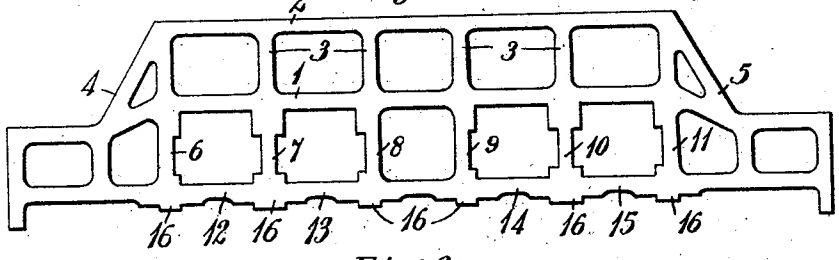


Fig. 2.

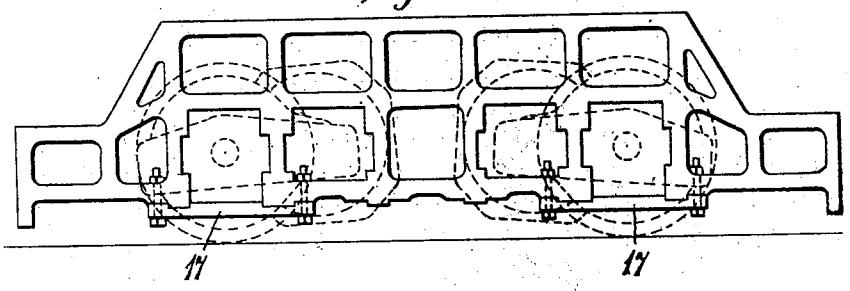


Fig. 3.

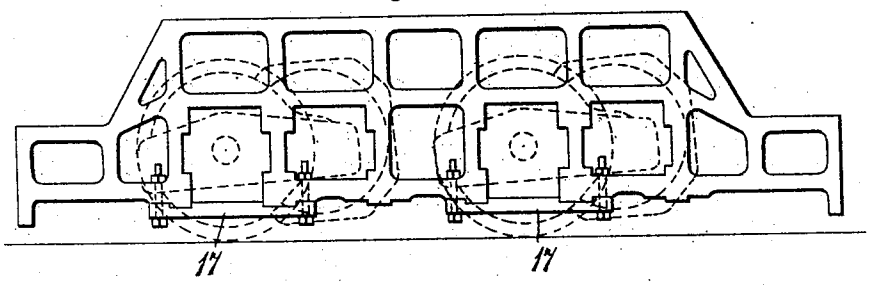
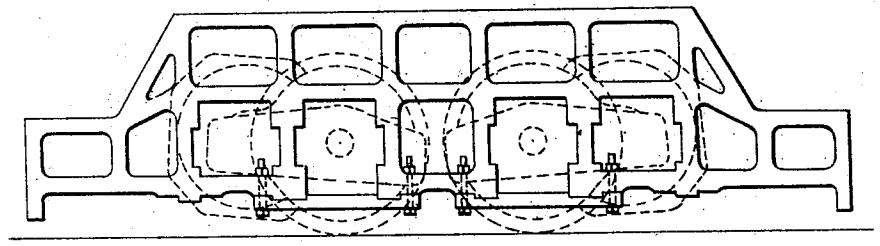


Fig. 4.



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LOCOMOTIVE-FRAME.

1,039,691. Specification of Letters Patent. Patented Oct. 1, 1912.

Application filed February 23, 1912. Serial No. 679,290.

To all whom it may concern:

Be it known that I, GRAHAM BRIGHT, a citizen of the United States, and a resident of Wilkinsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Locomotive-Frames, of which the following is a specification.

My invention relates to locomotives and other vehicles which are propelled by electric motors, and it has special reference to the side frame castings of locomotives of the mining and industrial types.

The object of my invention is to provide a side frame casting for locomotive or vehicles of the class above indicated which may be readily adapted for use with locomotives having either two outside, two inside or two tandem hung motors, or a single motor on either side of either axle.

It has been usual, heretofore, to provide a separate casting and carry at least three different patterns in order to produce them, for the different motor mountings above referred to, the locomotive axles being relatively far apart when the motors are inside hung and relatively close together when the motors are outside hung. When the motors were tandem supported, one of the axles is located relatively near the end of the frame, while the other is located relatively near the center of the locomotive.

According to my present invention, I provide a frame structure having four pedestal members instead of two, as heretofore, all of them being closed in the rough casting instead of open at their lower ends. It is then only necessary to cut open any one or two of the pedestal structures, depending upon the desired location of the axles and the hanging of the motor or motors.

Figure 1 of the accompanying drawings is an elevation of a frame casting constructed in accordance with my invention, Fig. 2 is a view corresponding to Fig. 1, showing the frame adapted for inside hung motors, the wheel axles and motors being shown in broken lines. Figs. 3 and 4 show the frame adapted, respectively, for tandem hung motors and outside hung motors. The mountings for a single motor are obvious and no separate views are required.

Referring to the drawings, the frame casting shown in Fig. 1 comprises a central longitudinal beam 1, which is trussed and supported by a parallel top beam 2 to which it is connected by a plurality of cross beams 3; end members 4 and 5 and a plurality of pedestal legs 6, 7, 8, 9, 10 and 11, that are joined at their lower ends by a series of webs 12, 13, 14 and 15, which may be cut away as desired.

When it is desired to use the frames for a locomotive having two wheel axles and inside hung motors, the webs 12 and 15 may be cut away, as shown in Fig. 2, a plurality of projections 16 being provided in the casting for the purpose of coöperating with the pedestal binders 17, in the usual manner.

The webs 12 and 14 or 13 and 15 may be similarly cut away, as shown in Fig. 3, when it is desired to mount the motors in a tandem arrangement. When the motors are to be outside hung, the webs 13 and 14 will be removed, as shown in Fig. 4.

By utilizing a single casting which can be readily adapted for the various motor arrangements usually employed, it is possible for a locomotive manufacturer to carry a sufficient number of castings in stock to cover ordinary orders of mining locomotives or locomotives of the mining type, without involving an excessive investment for maintaining the stock or space for its storage. Furthermore, a single pattern is sufficient where several large and comparatively expensive patterns were necessarily carried heretofore. Bosses may be provided at any points of the frame that may be desirable for the application of brake rigging, and box levers and the like.

While my invention is specially applicable to locomotives of small size, it is not restricted to any particular type or size of vehicle, and I desire that only such limitations shall be imposed as are indicated in the appended claims.

I claim as my invention:

1. A vehicle side frame having a plurality of pedestal sections joined at their lower ends and adapted to be selectively cut away.

2. A vehicle side frame comprising a single casting having duplicate pedestal frames all joined at their lower ends and adapted to be selectively opened.

3. A locomotive side frame having a plurality of pedestal sections joined at their lower ends and susceptible of being selec-

tively opened to adapt the locomotive for either inside hung, outside hung or tandem hung motors.

4. A locomotive frame casting having a plurality of pedestal sections joined at their lower ends in the casting and adapted to be cut open selectively to receive axle-bearings for either two inside, two outside or two tandem hung motors or one motor hung either side of any one of the locomotive axles.

In testimony whereof, I have hereunto subscribed my name this 16th day of Feb., 1912.

GRAHAM BRIGHT.

Witnesses:
E. W. P. SMITH,
B. B. HINES.