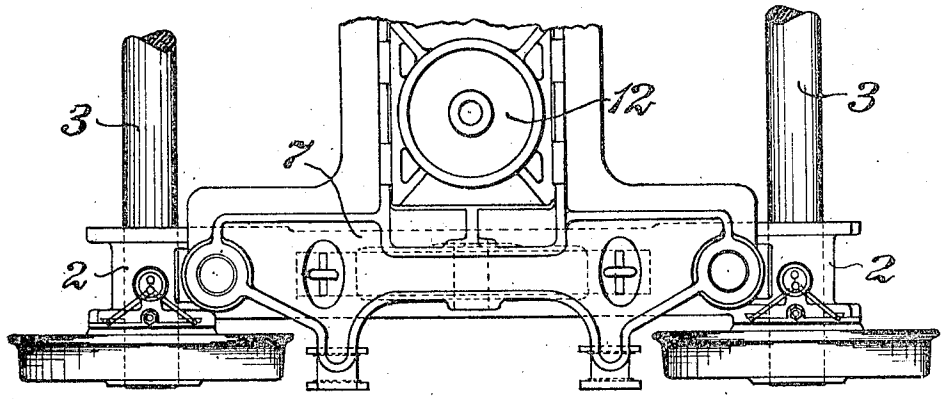
Oct. 7, 1924. 1,510,539

J. G. BLUNT

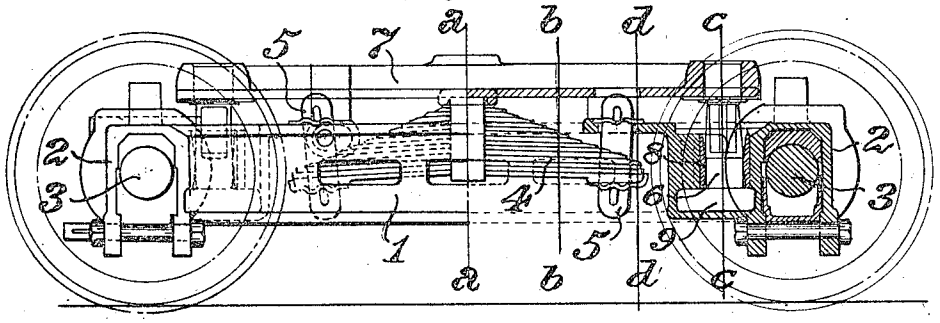
LOCOMOTIVE TRUCK

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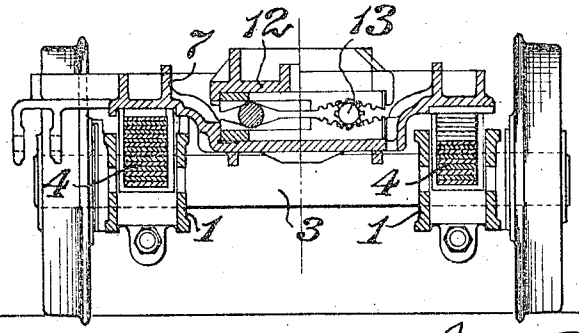
— FIG. 1 —



— FIG. 2 —



— FIG. 3 —



WITNESSES

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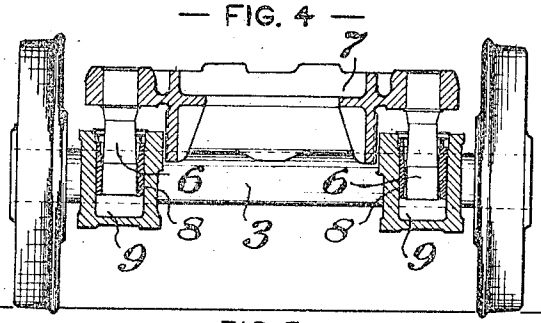
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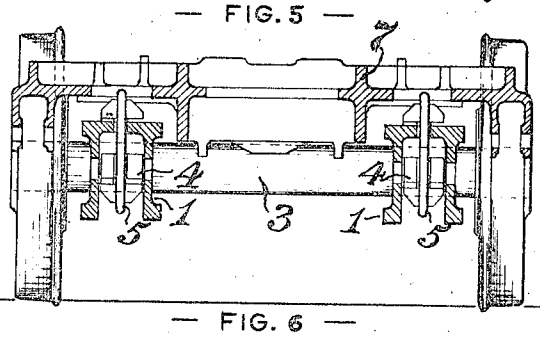
LOCOMOTIVE TRUCK

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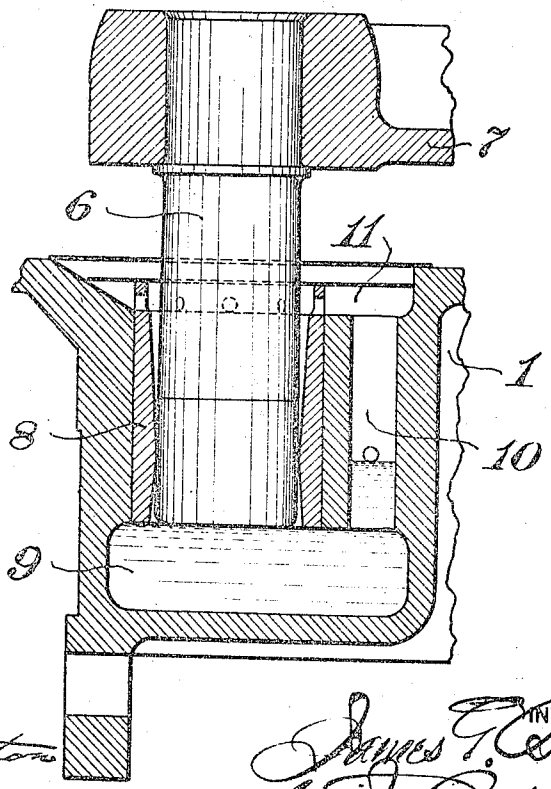
— FIG. 4 —



— FIG. 5 —



— FIG. 6 —



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UNITED STATES PATENT OFFICE.

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LOCOMOTIVE TRUCK.

Application filed August 18, 1922. Serial No. 582,748.

To all whom it may concern:

Be it known that I, JAMES G. BLUNT, a citizen of the United States, residing at Schenectady, in the county of Schenectady and State of New York, have invented a certain new and useful Improvement in Locomotive Trucks, of which improvement the following is a specification.

My invention relates to four wheeled trucks of the pedestal type, for locomotives or other railroad vehicles. Under usual running conditions, locomotive trucks are subjected to very severe vibratory action, which induces great strain upon all joints that are fastened by the use of bolts or pin connections, and failures have occurred due to parts separating or joints becoming loose.

One of the objects of my invention is to reduce the number of separate parts, and thereby eliminate, as far as possible, the application of bolted or pin connected joints. Another object is to equalize the weight upon the journals, without the employment of separate equalizer bars, while at the same time, permitting the wheels to follow the vertical inequalities of the track surface. Another feature of my invention comprises an improved construction of railroad truck pedestals, and means for automatically lubricating the same.

The improvement claimed is hereinafter fully set forth.

In the accompanying drawings: Figure 1 is a half plan view of a locomotive truck, embodying my invention; Fig. 2, a view, half in side elevation, and half in vertical longitudinal section, of the same; Fig. 3, a vertical transverse section, the left hand half being taken on the line *a a* of Fig. 2, and the right hand half on the line *b b* of the same figure; Fig. 4, a similar section, taken on the line *c c* of Fig. 2; Fig. 5, a similar section, taken on the line *d d* of Fig. 2; and, Fig. 6, a section on an enlarged scale, through one of the truck pedestals.

In the practice of my invention, referring descriptively to the specific embodiment thereof which is herein exemplified, I provide side frame members, or girders, 1, one at each side of the truck, and each being formed of a single integral casting, rigidly connected at its ends with the journal housings, 2, which enclose the journal bearings upon the axles, 3. The girders or frame members, 1, are preferably hollow, being formed with side walls, spaced apart and joined by flanges at top and bottom. They are also preferably cast integral with the journal housings, thereby eliminating bolted joints.

The equalizing springs, 4, which are preferably of semi-elliptic form, are located between the walls of the side members, and are suspended by means of the hangers, 5, which may be of the usual construction. The main frame, 7, which is preferably formed in one integral casting having side portions and transom, rests at its ends upon the centres of the elliptic springs, and is provided at its four corners with pedestal connections co-operating with corresponding parts carried by the girders or journal housings. The usual centre plate, 12, is located at the middle of the main frame, and may be supported thereon by means of suitable lateral motion connections, 13, which do not form part of my invention.

In the preferred construction, the girders, 1, at or near the journal housings, 2, are provided with cylindrical openings in which are fitted bushings, 8, for receiving pedestal pins, 6, which are rigidly mounted in, and depend from, the main frame, 7, at its four corners. The interior bores of the bushings, 8, are preferably reversely tapered, as shown in Fig. 6, in order to permit the angular motion of the pins, 6, without excessive lateral or longitudinal motion. By means of this construction the frame guides the truck through the engagement of the pedestal pins in the bushings, and the side girders are permitted to oscillate freely with respect to vertical inequalities in the surface of the track, without binding or cramping the pedestal pins. For the purpose of lubricating the pedestal bearing, an oil chamber or pocket, 9, is formed at the bottom of the pedestal opening or bushing, which chamber may be filled with oil up to a point above the lower end of the pedestal pin. One or more passages, 10, may also be provided for permitting a circulation of oil from the chamber, 9, to a recess, 11, at the upper portion of the bearing during the vertical sliding movement of the pedestal pin within the bushing in which it acts as a plunger for forcing the oil through the said passages. In this manner the pedestal bear-

ing is automatically lubricated, and the oil is drained back into the chamber, 9, so as to prevent waste and economize lubricant.

In the improved truck construction herein set forth, the elliptic springs perform the double function of springs and equalizers, eliminating the use of separate equalizing bars and equalizing the weight upon each journal. This construction also permits each wheel to follow vertical undulations in the track surface, and maintain a constant load on each journal bearing while accommodating itself to the track variations.

I claim as my invention and desire to secure by Letters Patent:

1. In a four wheeled truck, the combination with side girders, one at each side of the truck, comprising spaced parallel side walls, and having journal housings rigidly connected therewith, of a rigid frame having vertical sliding pedestal connections with said girders; and equalizing springs, located between the side walls of the girders, and coupled, at their ends thereto, and supporting the frame at the middle of their length.

2. In a four wheeled truck, the combination, with side girders, one at each side of the truck, comprising spaced parallel side walls and journal housings, of a rigid frame, having vertical sliding pedestal connections with said girders; and equalizing springs, suspended at their ends, on and between the side walls of the girders, and supporting said frame at the middle of their length.

3. In a four wheeled truck, the combination, with side girders, each formed of a single integral casting, including journal housings at its ends, and having pedestal openings, of a rigid frame, having pedestal pins at its four corners, extending into said openings.

4. A railway truck pedestal, comprising a member, rigidly connected to a journal housing and having a vertical opening; and a frame, having a pin slidably mounted in said opening.

5. A railway truck pedestal, comprising a member rigidly connected to the journal housing and having a cylindrical opening; a bushing therein, having a tapered interior bore; and a pedestal pin, mounted in said bushing.

6. A railway truck pedestal, comprising a member rigidly connected to the journal housing, and having a vertical opening, with an oil chamber at the bottom; and a pedestal pin, mounted in said opening.

7. A railway truck pedestal, comprising a member rigidly connected to the journal housing, and having a vertical opening, with an oil chamber at the bottom; a passage for permitting a circulation of the oil to the upper portion of the pedestal bearing; and a pedestal pin, slidably mounted in said opening.

8. In a locomotive truck of the four wheel type, the combination of two side frame members, each comprising two vertical plates, spaced apart, and having journal boxes fixed in their ends; a truck bolster, extending transversely to the side frame members; and springs, supported directly on the side frame members and housed in the spaces between the vertical plates thereof, said springs supporting the truck bolster.

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