

No. 788,082.

PATENTED APR. 25, 1905.

G. H. WOOD.  
SIDE BEARING FOR RAILWAY ROLLING STOCK.

APPLICATION FILED FEB. 13, 1905.

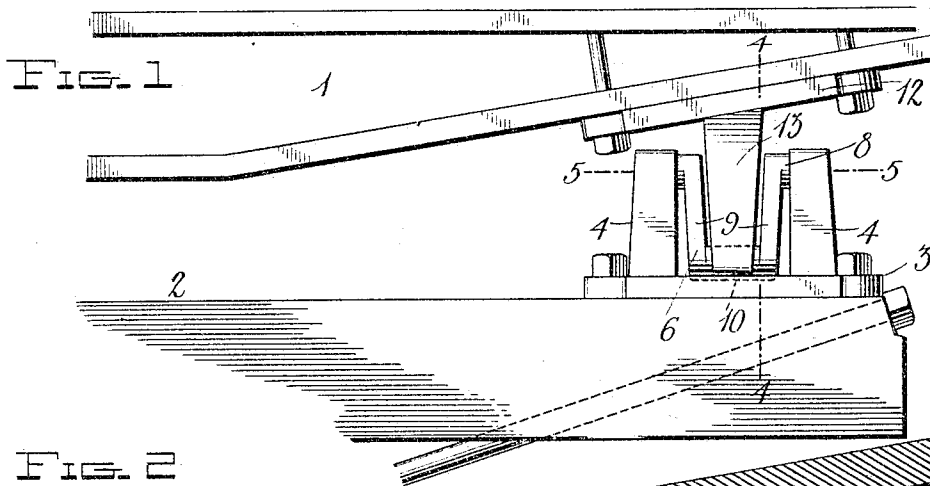


FIG. 2

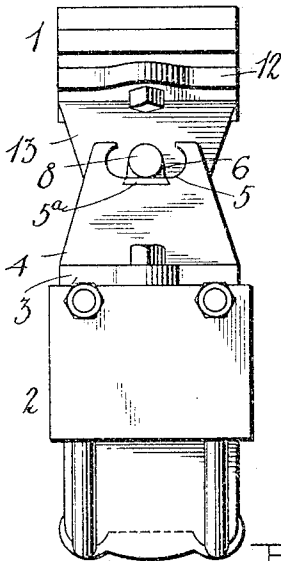


FIG. 3

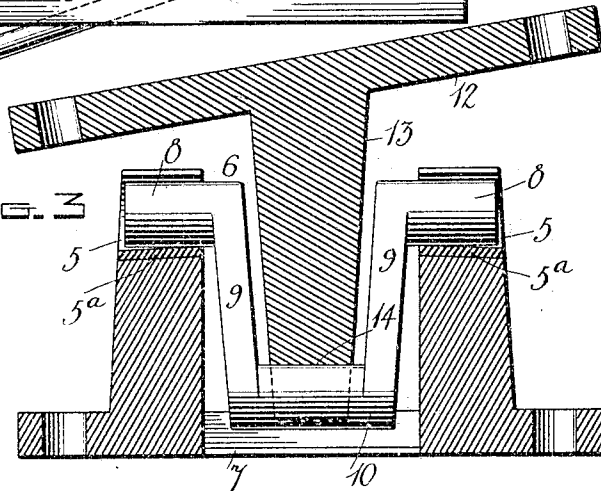
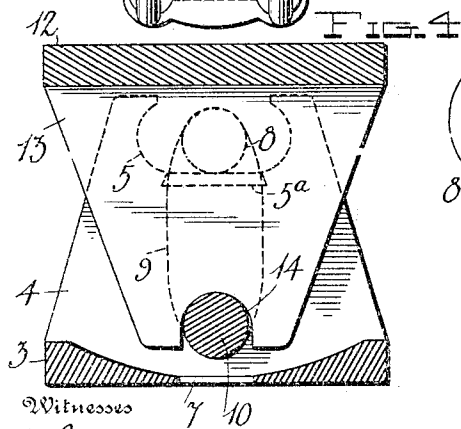
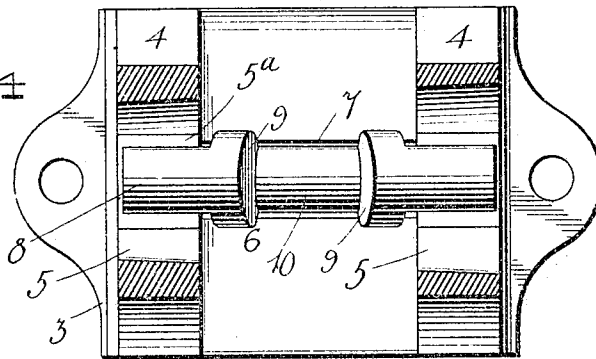


FIG. 5



Witnesses

*C. H. Griesbauer.*

Inventor

*G. H. Wood*

By

*A. B. Wilson*

Attorney

# UNITED STATES PATENT OFFICE.

GEORGE H. WOOD, OF TYLER, TEXAS.

## SIDE BEARING FOR RAILWAY ROLLING-STOCK.

SPECIFICATION forming part of Letters Patent No. 788,082, dated April 25, 1905.

Application filed February 13, 1905. Serial No. 245,505.

*To all whom it may concern:*

Be it known that I, GEORGE H. WOOD, a citizen of the United States, residing at Tyler, in the county of Smith and State of Texas, have invented certain new and useful Improvements in Side Bearings for Railway Rolling-Stock; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in side bearings for locomotives and railway-cars.

The object of the invention is to provide a side bearing that will give ample play to the trucks in rounding curves, thereby enabling the curve to be made with the least friction, and thus preventing derailments.

A further object is to provide a side bearing of this character which will be simple, strong, and durable in construction, efficient in operation, and well adapted to the purpose for which it is designed.

With these and others objects in view the invention consists of certain novel features of construction, combination, and arrangement of parts, as will be hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a side elevation of one end of the transom and truck-bolster of a railway-car, showing the application of the improved side bearing. Fig. 2 is an end elevation thereof. Fig. 3 is a central longitudinal sectional view of the same. Fig. 4 is a transverse vertical sectional view on the line 4 4 of Fig. 1, and Fig. 5 is a horizontal sectional view on the line 5 5 of Fig. 1.

Referring more particularly to the drawings, 1 denotes the transom or body-bolster of a railway-car or locomotive, and 2 denotes the truck-bolster. Bolted or otherwise secured to the truck-bolster is a base-plate 3, on which are formed upwardly-projecting parallel bearing-blocks 4, having perpendicular inner walls. Near the upper ends of the blocks 4 are formed elongated bearing-recesses 5. The recesses in the outer bearing-

blocks 4 are considerably longer than those of the inner block. In the lower wall or bottom of each of the recesses 5 is arranged a bearing-plate 5<sup>a</sup>, formed of case-hardened steel.

In the bearing-recesses 5 are slidably journaled the laterally-projecting cylindrical ends of a swinging bail or crank-shaft 6, which hangs between the bearing-blocks 4, as shown. The base-plate 3 between the blocks 4 is provided with a centrally-disposed aperture 7, the walls of which incline toward the front and rear of the plate, whereby the depending portion of the crank-shaft will be permitted to swing freely. The swinging bail or crank-shaft 6 consists of the upper laterally-projecting cylindrical bearing members or journals 8, on the inner ends of which are arranged parallel integrally-formed depending arms 9, connected together at their lower ends by a cylindrical cross-bar 10, forming a bearing. The journal 8 is adapted to bear and slide on the case-hardened bearing-plates 5<sup>a</sup> in the recesses 5 of the blocks 4, thus reducing the friction of these parts.

To the lower side of the transom 1 is bolted or otherwise secured a plate 12, on which is formed a downwardly-projecting bearing-block 13. This block 13 is disposed between the bearing-blocks 4 and is provided in its lower end with a semicircular bearing-recess 14, which is adapted to engage the central depending portion of the crank-shaft 6, thereby pivotally and slidably supporting the ends of the body-bolster and forming a perfect side bearing for the car or locomotive to which the same may be applied.

When the device is applied to cars having wrought-iron transoms, the plate 12 is bolted thereto, as shown in the drawings. When, however, the transoms are formed of cast metal, the blocks 13 will be cast integral therewith, thus doing away with the plate 12. When the plate 12 is bolted onto the wrought-iron transoms, said plate will be disposed at an angle to the blocks 13 to correspond to and fit the angle of inclination or slant of the lower side of the transom, as shown.

In a side bearing constructed in accordance with this invention a swinging or rocker motion is provided for said bearing, which will obviate the necessity of oiling the parts and will cause the same to respond instantly and at all times when the truck starts to round a curve, the friction of the parts being reduced to a minimum. This construction and arrangement of side bearing permits the trucks to readily turn the shortest curves, the freedom of movement of the various parts preventing any sticking or hanging, which would tend to cause a derailment of the car or locomotive.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

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

1. In a side bearing of the character described, the combination with parallel upwardly-projecting bearing-blocks arranged on the ends of the truck-bolster, and having formed in their upper ends elongated bearing-apertures, of swinging bails or crank-shafts slidably journaled in said apertures, and means whereby the ends of the body-

bolster are engaged with and supported upon said crank-shafts, substantially as described.

2. In a side bearing of the character described, the combination with parallel upwardly-projecting bearing-blocks arranged on the ends of the truck-bolster and having formed in their upper ends elongated bearing-apertures, of swinging bails or crank-shafts slidably journaled in said apertures, and downwardly-projecting bearing-blocks arranged on the ends of the body-bolster, said blocks having formed in their lower ends semicircular bearing-apertures to engage said bails or crank-shafts, substantially as described.

3. In a side bearing of the character described, the combination with an attaching-plate, of upwardly-projecting parallel bearing-blocks formed thereon, said blocks having formed in their upper ends elongated bearing-apertures, crank-shafts slidably journaled in said apertures, attaching-plates secured to the ends of the body-bolster, and downwardly-projecting bearing-blocks formed on said plates, said blocks having formed in their lower ends semicircular bearing-apertures to engage said crank-shafts, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

GEORGE H. WOOD.

Witnesses:

I. N. CROSS,  
E. E. FLORENCE.