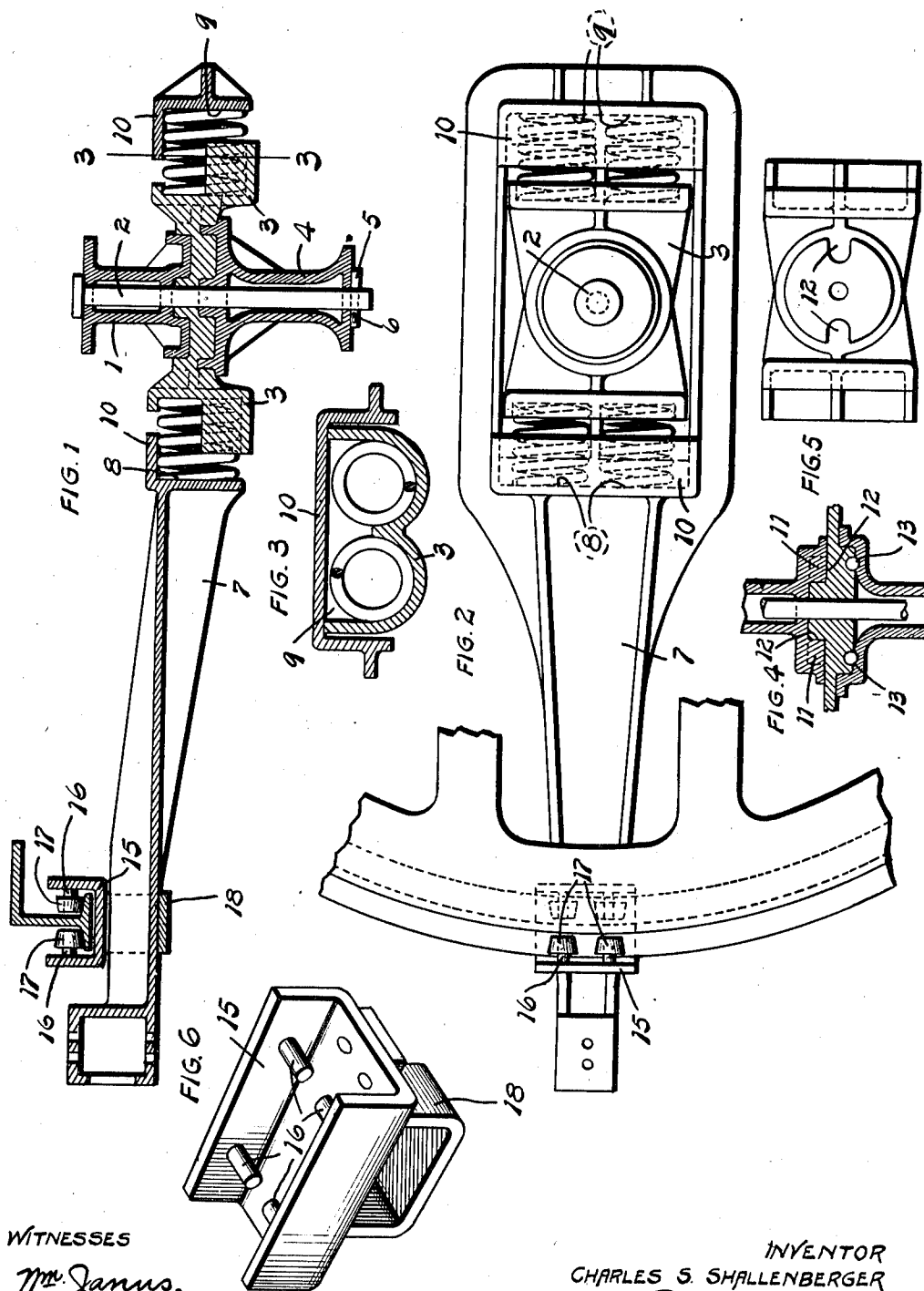


C. S. SHALLENBERGER.
TRANSOM DRAFT GEAR.
APPLICATION FILED SEPT. 2, 1911.

1,061,331.

Patented May 13, 1913.



WITNESSES

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UNITED STATES PATENT OFFICE.

CHARLES S. SHALLENBERGER, OF ST. LOUIS, MISSOURI, ASSIGNOR TO TRANSOM DRAFT GEAR COMPANY, OF ST. LOUIS, MISSOURI, A CORPORATION OF MISSOURI.

TRANSOM DRAFT-GEAR.

1,061,331.

Specification of Letters Patent.

Patented May 13, 1913.

Application filed September 2, 1911. Serial No. 647,352.

To all whom it may concern:

Be it known that I, CHARLES S. SHALLENBERGER, a citizen of the United States, residing at St. Louis, Missouri, have invented a certain new and useful Improvement in Transom Draft-Gear, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a longitudinal sectional view of my improved transom draft gear. Fig. 2 is a top plan view of the same. Fig. 3 is a sectional view on line 3—3 of Fig. 1. Fig. 4 is a detail sectional view of a modified form. Fig. 5 is a plan view of the floating spring carrier shown in Fig. 4. Fig. 6 is a detail view of the roller carrier for the front end of the draw bar extension.

This invention relates to new and useful improvements in transom draft gear, particularly designed for street railway service where the draw-bar swings through a comparatively large arc due to the short radii of the curve.

My present improvement contemplates the use of a floating spring carrier swiveled upon the king pin of the truck, and having center bearings to cooperate with the center bearings of the body and truck bolsters respectively, thereby said spring carrier may have a movement independent of the car body or be locked to the car body as desired.

One of the important features of my invention is the construction of a transom draft gear which can be easily and quickly assembled and placed in position between the truck and body bolster.

In the drawings, 1 indicates the body bolster of the car which may be of any usual or improved construction through which passes the king pin 2.

3 is a floating spring carrier having spring seats at its front and rear edges to receive and house preferably a plurality of springs, which are alternately compressed in buffing and pulling strains. This floating spring carrier is likewise swiveled upon the king bolt, and provided with center bearings on its upper and lower faces which engage against and cooperate with the center bearing of the body bolster, and also the

center bearing of the truck bolster indicated by 4.

The king pin is preferably locked in position by a cross pin 5 held against displacement by a cotter pin 6, 7 indicates the draw-bar extension of the transom gear which is provided with spring seats 8, to cooperate with the buffer springs, and a yoke section having spring seats 9 to cooperate with the draft springs. Over these spring seats 8 and 9 is a housing 10, which housing is designed to cooperate with a lip or housing on the floating spring carrier so as to limit the compression of the draft and buffer springs.

In Figs. 4 and 5 I have shown a modified form in which the floating spring carrier is formed with male center bearings, and if desired lugs 11 on the body bolster may fit in recesses 12, formed in the floating spring carrier, whereby the independent movement of the floating spring carrier with respect to the car body may be limited.

It is obvious that anti-friction devices, such as balls arranged in circular recesses could be employed as indicated at 13 in Fig. 4; also that ball bearings could be used under the center bearing of the body bolster shown in Fig. 1.

From the above construction it will be seen that the springs seated in the floating spring carrier will communicate all pulling and buffing strains directly to the center bearing, and irrespective of the position of the transom gear to the strains, will be on a straight line with respect to said center bearings; hence all shocks and jars are absorbed, and a direct pull insured.

In order to support the outer end of the draw bar extensions I provide a carrier 15 having inwardly extending stud shafts 16, on which rollers 17 are loosely mounted, this carrier provides a support for the carry iron 18, the rollers ride upon flanges of a curved track member and thus provide running support for the outer ends of the draw bar extension.

In assembling my improved draft gear, the spring carrier 3 is placed in position upon the center bearing of the truck bolster after which the yoke and spring are placed in proper position on the spring carrier and the body bolster 1 is now lowered so that the center bearing thereon engages the top face of said spring carrier. Thus, the spring carrier is positioned wholly between the

body and truck bolster and is free to swing horizontally upon the center bearings formed on said bolster and upon the king pin. It will be readily understood that
5 minor changes in the size, form and construction of the various parts of my improved draft gear can be made and substituted for those herein shown and described without departing from the spirit of my in-
10 vention, the scope of which is set forth in the appended claim.

I claim,

The combination of truck and body bolsters, of a floating spring carrier pivotally
15 mounted between said bolsters, spring seats formed on the ends of said carrier, center bearings formed on the upper and lower

faces of said floating spring carrier, which bearings cooperate with the center bearings formed on the truck and body bolsters, a draw bar extension, a yoke carried by said
20 draw bar extension, which yoke extends between the bolsters around the floating spring carrier, spring seats formed on said yoke, and springs arranged in the seats of the
25 spring carrier and yoke.

In testimony whereof I hereunto affix my signature in the presence of two witnesses, this tenth day of August, 1911.

CHARLES S. SHALLENBERGER.

Witnesses:

M. P. SMITH,
HAL C. BELLVILLE.