

C. METTERHAUSEN.  
DRAFT RIGGING.  
APPLICATION FILED NOV. 22, 1907.

951,325.

Patented Mar. 8, 1910.

Fig. 1.

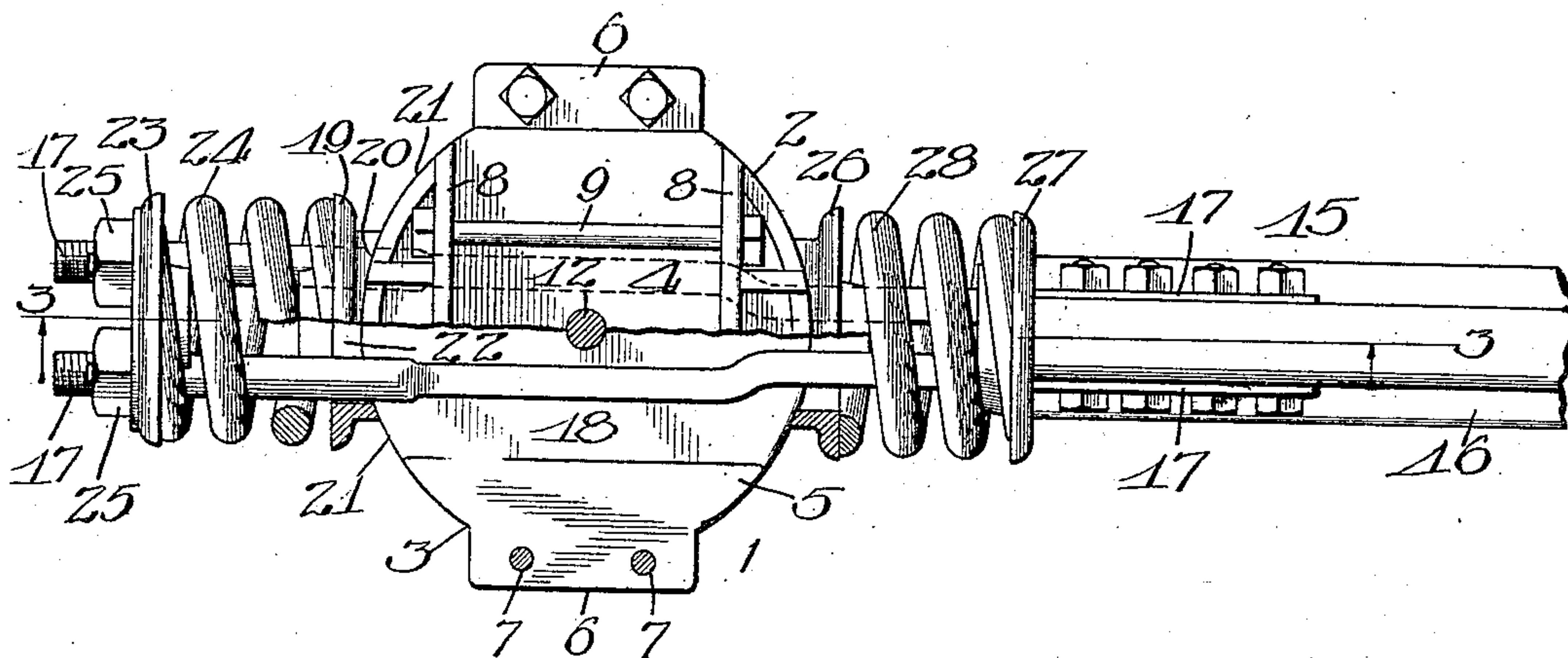


Fig. 2.

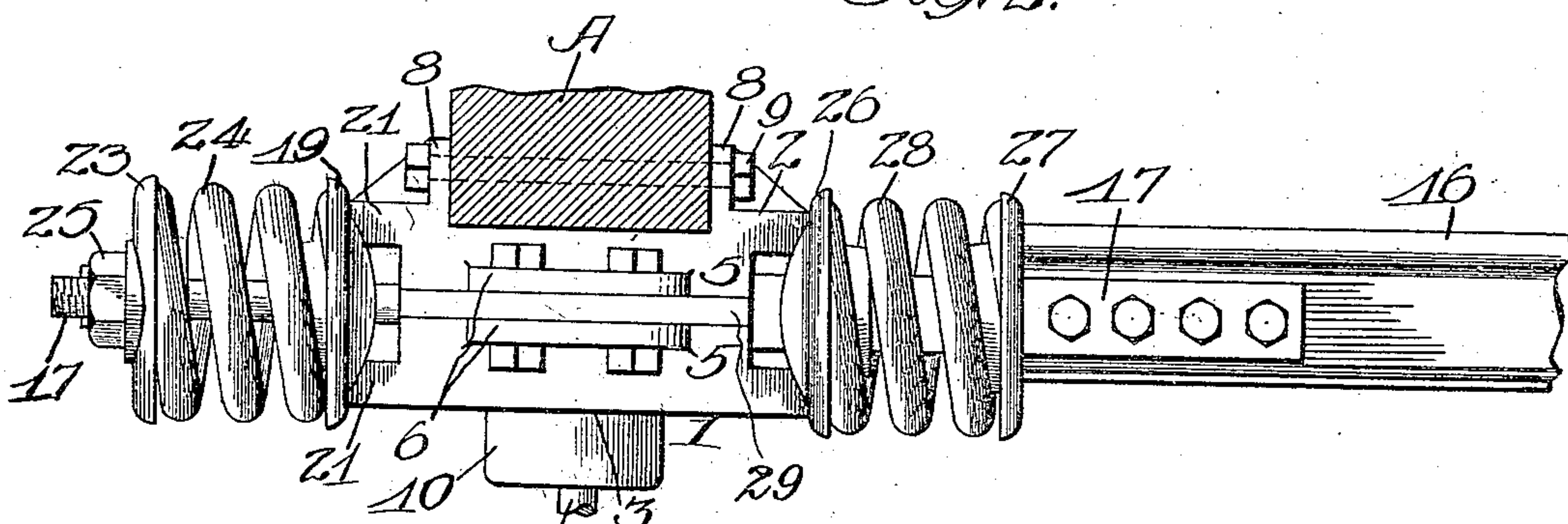
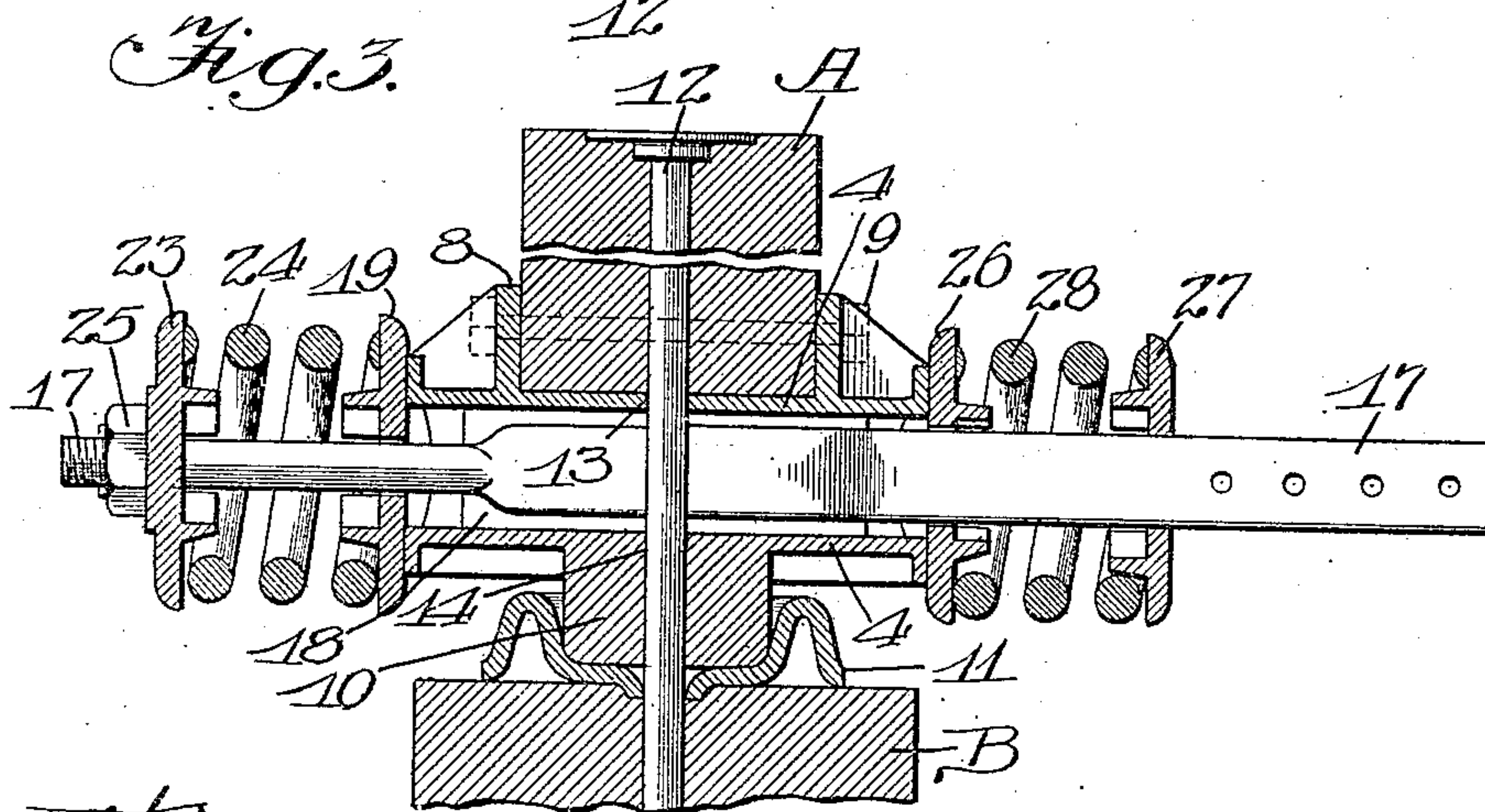


Fig. 3.



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# UNITED STATES PATENT OFFICE.

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## DRAFT-RIGGING.

951,325.

Specification of Letters Patent.

Patented Mar. 8, 1910.

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*To all whom it may concern:*

Be it known that I, CARL METTERHAUSEN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Draft-Rigging, of which the following is a specification.

This invention relates especially to that type of draft rigging for railway cars in which the draw-bar is pivoted to swing in a horizontal plane when the cars are rounding a curve, and is also free to oscillate in a vertical plane to accommodate itself to relative movements of the cars resulting from an uneven track, grades and other causes.

The object of the invention is to improve the means for connecting the draw-bar to the car, with a view to reducing the number of parts to the minimum, making the work of assembling the rigging as convenient and expeditious as possible, and to provide for varying amounts of vertical movement of the draw-bar.

In the accompanying drawings, Figure 1 is a top plan view, partly in section, of one form of draft rigging embodying the features of my invention, the forward end of the draw-bar being broken away. Fig. 2 is a side elevation of said draft rigging. Fig. 3 is a longitudinal vertical section on the plane of line 3 3 of Fig. 1.

The embodiment selected for illustration provides means for pivoting the car body on the truck and for permitting horizontal and vertical pivotal movement of the draw-bar, said means comprising a casing 1 consisting of but two sections 2 and 3, which may be made of castings. Each of said casing-sections comprises a substantially circular plate 4. The plates 4 are supported parallel to one another by the end walls 5. Lugs 6 on said end walls are adapted to receive bolts 7 for securing the sections 1 and 2 rigidly together.

The casing-section 2 may be attached to the body bolster A of the car in any suitable way, as by providing two flanges 8 cast on said section and adapted to lie at opposite sides of the body bolster and receive bolts 9 extending through said flanges and bolster.

The casing-section 3 is herein shown as connected to the truck bolster B by means of a boss 10 cast on the lower side of said

section, said boss being in practice seated in a socket or bearing 11 on the truck bolster. The king pin 12 extends through the body bolster A through openings 13 and 14 in the casing-sections 2 and 3, and through the truck bolster B.

The draw-bar 15, which is provided at its outer end with a coupler head (not shown), may be of any common or suitable construction. It is herein represented as comprising a bar 16 and two rods 17 bolted to opposite sides of said bar. The rods 17 extend through the space 18 between the plates 4 and pass at opposite sides of the king pin 12.

The means herein shown for taking up the shock of a pulling stress, as when starting a train, and the shock of a pushing stress, as when cars are brought together for coupling, comprises a coiled spring placed at each side of the casing 1 and bearing upon said casing and the draw-bar. A collar 19 having a concave surface 20 is adapted to slide in contact with the convex surfaces 21 of the casing-sections 2 and 3, and has an opening 22 therein through which the rods 17 extend freely. A collar 23 has two openings (not shown) therein within which the rods 17 lie loosely. A coiled spring 24 lies between the collars 19 and 23, nuts 25 being turned upon the screw-threaded rear ends of the rods 17 behind the collar 23. Similar collars 26 and 27 are provided upon the rods 17 forward of the casing 1, the collar 26 lying in sliding contact with said casing, and the collar 27 bearing against the adjacent end of the bar 16. A coiled spring 28 is interposed between the collars 26 and 27. The tension of the springs 24 and 28 may be adjusted by means of the nuts 25.

The casing 1 may, if desired, be secured to any cross-sill or other suitable part of the car-underframing, and in such event any suitable pivot may be substituted for the king pin 12.

The casing sections 2 and 3 may be spaced apart, if desired, in a vertical direction by placing filler blocks 29 between the lugs 6 in order to increase the height of the aperture 18 and thus permit of a greater amplitude of vertical pivotal movement of the draw-bar.

While I have described the present embodiment of my invention with some particularity, I realize that many changes may be

made therein. I, therefore, do not limit myself to the precise construction herein set forth.

I claim as my invention:

- 5 In draft rigging, in combination, a two-part casing comprising an upper section and a lower section; means for spacing said sections apart, means for securing said sections

together; and a draw-bar pivotally connected with said casing to swing in vertical and horizontal planes.

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