

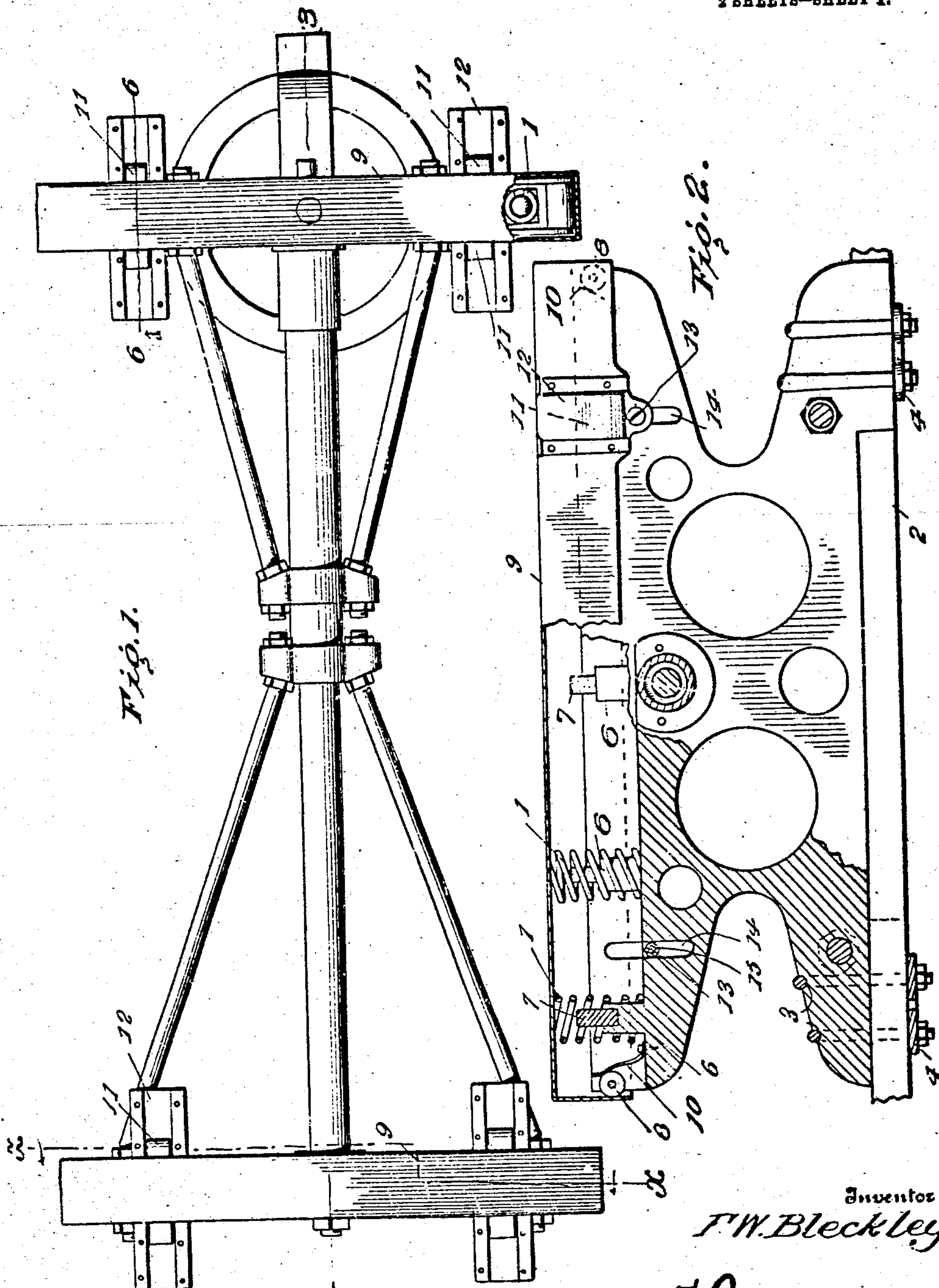
F. W. BLECKLEY.
RUNNING GEAR.

APPLICATION FILED MAY 29, 1907.

Patented Sept. 22, 1908.

2 SHEETS—SHEET 1.

899,199.



Witnesses

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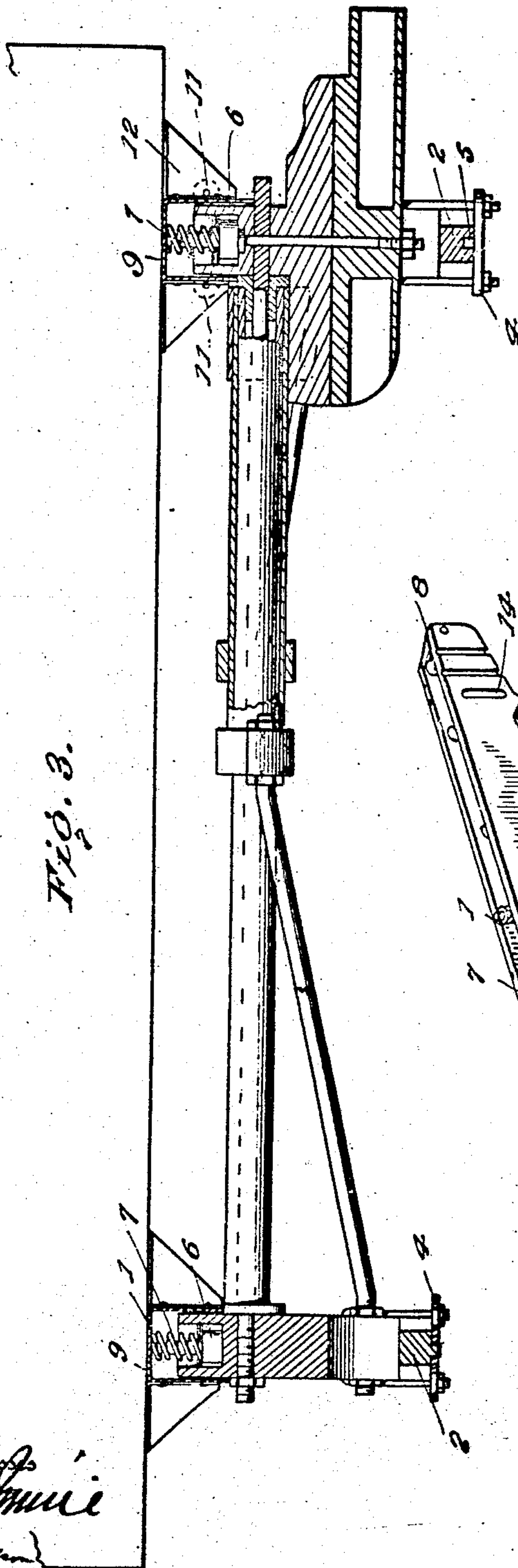


Fig. 3.

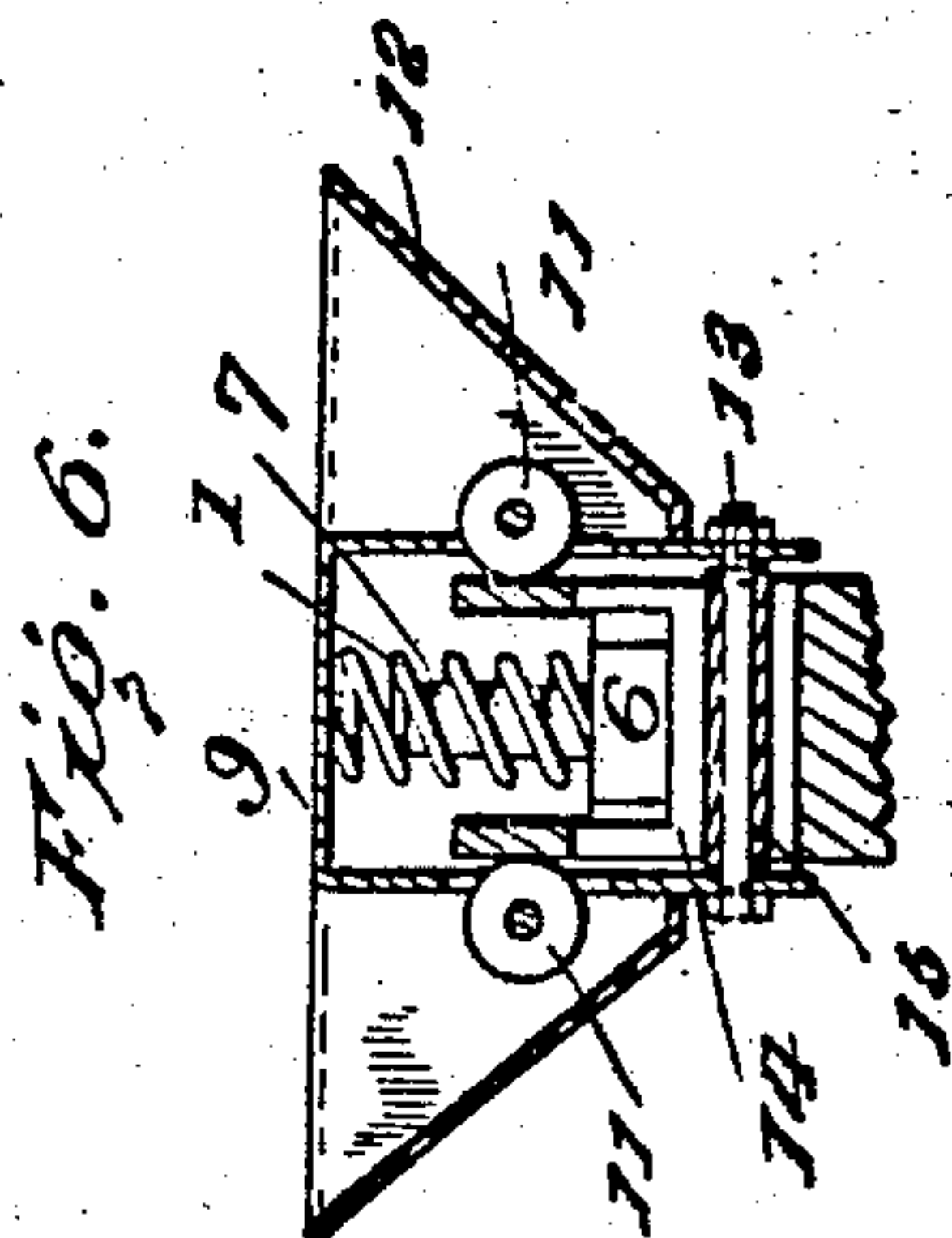


Fig. 6.

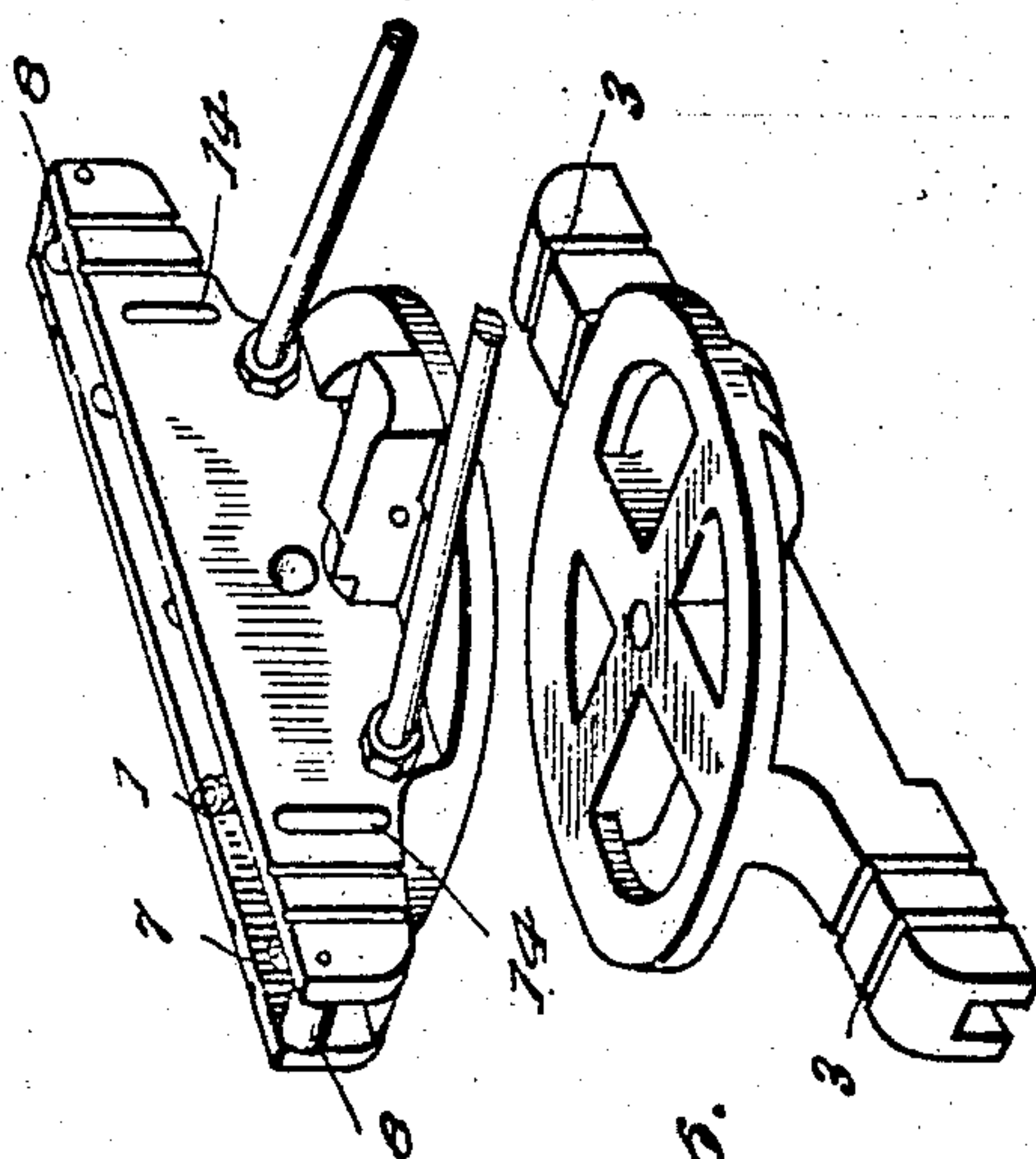


Fig. 4.

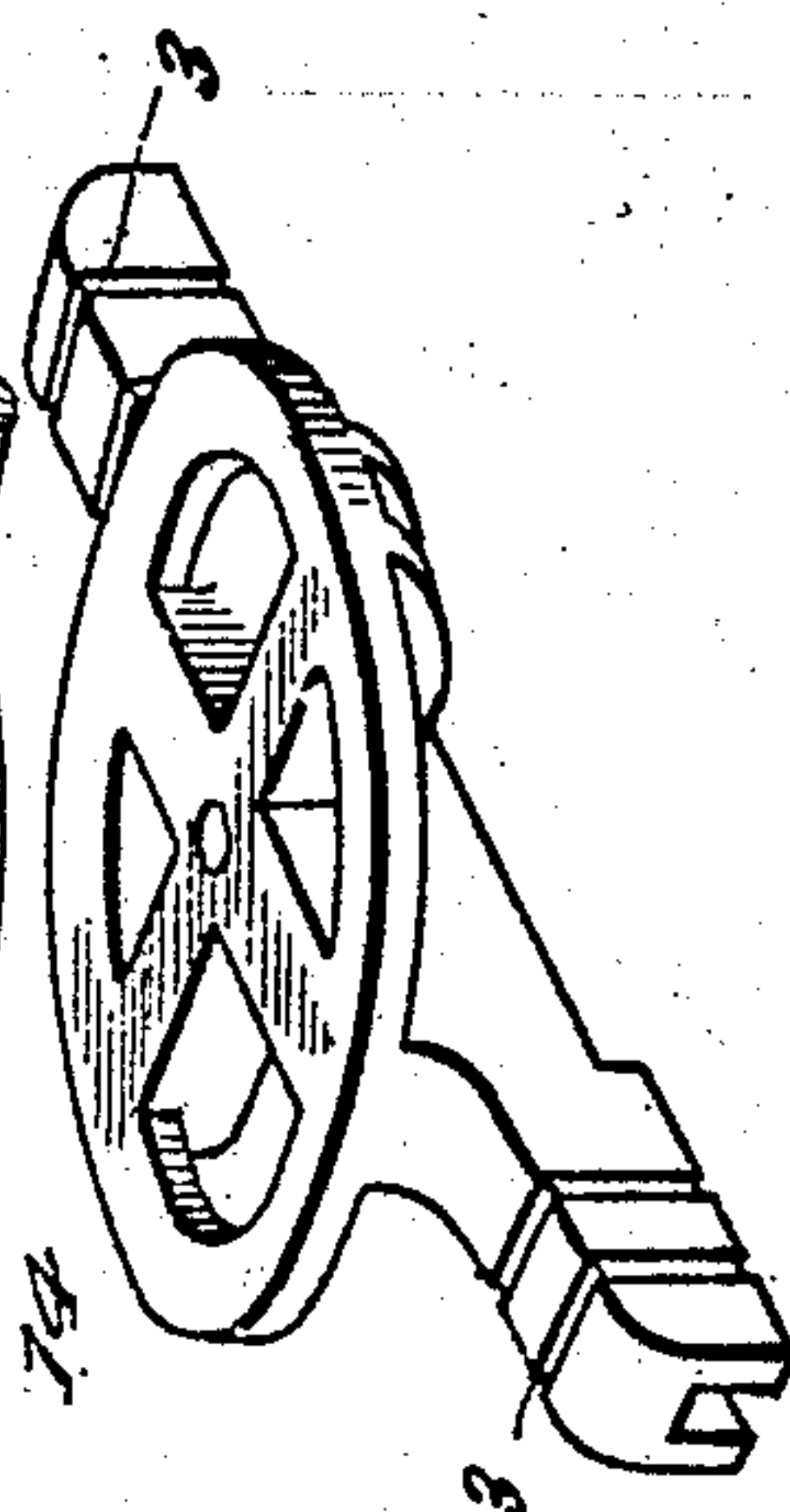


Fig. 5.

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UNITED STATES PATENT OFFICE.

FREDERICK W. BLECKLEY, OF HAZLETON, PENNSYLVANIA.

RUNNING-GEAR.

No. 899,199.

Specification of Letters Patent.

Patented Sept. 22, 1908.

Application filed May 29, 1907. Serial No. 376,340.

To all whom it may concern:

Be it known that I, FREDERICK W. BLECKLEY, citizen of the United States, residing at Hazleton, in the county of Luzerne and State of Pennsylvania, have invented certain new and useful Improvements in Running-Gears, of which the following is a specification.

Vehicle running gear embody bolsters which either support the load directly or are attached to a bed or body designed to receive the load.

The primary object of this invention is to provide a bolster of novel formation: to combine therewith a cap which is adapted to be positively connected with the bed or bottom of the body and having sliding and yielding connection with the bolster; and to improve the general construction in a manner substantially as indicated hereinafter and shown in the accompanying drawings, in which:

Figure 1 is a top plan view of vehicle running gear embodying the invention. Fig. 2 is a section on the line $x-x$ of Fig. 1 showing the parts on a larger scale. Fig. 3 is a central longitudinal section on the line 3-3 of Fig. 1, the coupling means being in full except at the front end. Fig. 4 is a detail perspective view of the upper member of the front bolster. Fig. 5 is a detail perspective view of the lower member of the front bolster. Fig. 6 is a transverse section on the line 6-6 of Fig. 1.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

As shown most clearly in Fig. 2, the rear bolster is a one-piece structure, whereas the front bolster is composed of two members as illustrated most clearly in Figs. 4 and 5. The upper and lower portions of the bolster are substantially the same whether the bolster is of a single or a two-part formation. The upper member or portion of the bolster is hollow or channeled to receive a series of springs 1 and spring guides and buffers. The lower portion or member of the bolster is channeled or formed near opposite ends with spaced portions to embrace opposite sides of the axle 2, thereby preventing forward or rearward movement or displacement of the parts. The lower portion or member of the bolster is clipped at its ends to the axle, the clips being fitted in grooves or seats 3 and

their lower ends being connected by means of a yoke 4 which extends beneath the axle and bolster. Positive interlocking means is provided between the yoke 4 and the axle to prevent any longitudinal movement of the axle. Said locking means consists of a projection 5 which may extend either from the plate 4 or the axle 2 as indicated in Fig. 3 and enter an opening or depression in either the plate or the axle. The coupling means are interposed between the bolsters and are of such construction and relative arrangement as to admit of the bolsters having a limited relative angular movement, whereby the fore and hind gears may adapt themselves to varying conditions in the surface of the road without straining the connections to a degree to cripple or impair the efficiency of the running gear as a whole. A fifth wheel is interposed between the members of the front bolster, the complementary parts of the fifth wheel being formed with or attached to the respective members. Inasmuch as the upper portion or member of the bolsters is of like construction, a detail description will suffice for a clear understanding of both. A series of studs 6 project upward from the bottom of the channel or space formed in the upper side of the bolster and are recessed to receive rubber bumpers 7. The studs 6 receive the lower ends of the coil springs 1 and hold them in place. Rollers 8 are provided at opposite ends of the bolster and are designed to sustain the end thrust of the bolster cap 9. To prevent rattling of the rollers 8, springs 10 exert a pressure thereon and are secured to the bolster.

The bolster cap 9 is closed at its top ends and sides and is formed of sheet metal and closes the top side and ends of the space or channel formed in the upper side of the bolster. The springs 1 hold the cap elevated and support the load. To reduce the friction between the sides of the cap and the sides of the bolster, rollers 11 are provided and are mounted upon the cap and project through openings formed in the sides thereof so as to engage the sides of the bolster. The rollers 11 are protected by means of housings 12 which are of bracket formation and are fastened to opposite sides of the cap and have outer flanges at their upper ends to receive the fastenings by means of which the cap is secured to the bed or bottom of the wagon body. The pins upon which the rollers 11 are mounted are supported at their ends in

the sides of the housings 12. The cap being constructed of sheet metal, preferably steel, is adapted to have its sides compressed more or less to allow for wear between the rollers 5 and the sides of the bolster as also to insure a close fit between the cap and bolster. To secure the cap to the bolster and to provide for compressing the sides thereof, bolts 13 are employed, the same passing through 10 openings formed in opposite sides of the cap in coincident relation and through vertical slots 14 formed in the bolster. Rollers 15 are mounted upon the bolts 13 so as to reduce the friction between said bolts and the sides 15 of the slots 14. As the rollers 11 wear, the bolts 13 may be tightened, thereby maintaining contact of said rollers with the sides of the bolster.

While it is preferred to have the caps positively connected to the bed or bottom of the vehicle, it is not essential that such connection be resorted to because some varieties of wagons, and particularly those constructed to receive the load directly upon the bolster, 25 do not employ either a bed or a body, and in adapting the invention for this class of wagons, the housings 12 will be modified so as to inclose the rollers 11 and without a view of connection to any superstructure. The rollers 11, besides minimizing the friction between the cap and the bolster, also sustain the forward and backward thrusts from loads in going up and down grades.

Having thus described the invention, what 35 is claimed as new is:

1. In combination, a bolster having the upper portion thereof channeled, guide rollers journaled within the channeled portion of the bolster at opposite ends thereof, a cap 40 fitting loosely over the channeled portion of the bolster, the ends of the cap engaging the

before mentioned guide rollers, and springs interposed between the bolster and cap and inclosed within the cap.

2. In combination, a bolster, a cap fitting 45 loosely over the bolster and having openings in the sides thereof, yielding means interposed between the bolster and cap, and guide rollers mounted upon the exterior of the cap and operating through the openings in the sides 50 thereof to engage the bolster.

3. In combination, a bolster, a cap fitting loosely over the bolster and having openings in the sides thereof, housings applied to the exterior of the cap, guide rollers journaled 55 within the housings and operating through the openings in the sides of the cap to engage the bolster, and a yielding means interposed between the bolster and cap.

4. In combination, a bolster having vertical slots extended through opposite sides 60 and having a depression in its upper side, and projections extended upward from the bottom of said depression, a cap embracing the ends and sides of the upper portion of the 65 bolster, bumpers fitted in the upper ends of said projections, springs interposed between the cap and bolster and fitted to said projections, bolts passed through the vertical slots of the bolster and connecting opposite 70 sides of the cap, sleeves mounted upon the said bolts, rollers mounted upon the terminal portions of the bolsters and adapted to engage with the ends of the cap, and springs fast at one end to the bolster and 75 bearing against said rollers.

In testimony whereof I affix my signature in presence of two witnesses.

FREDERICK W. BLECKLEY. [L. S.]

Witnesses:

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