

C. H. TOMLINSON.
DRAW BAR CARRIER.
APPLICATION FILED AUG. 17, 1907.

928,890.

Patented July 20, 1909.

2 SHEETS—SHEET 1.

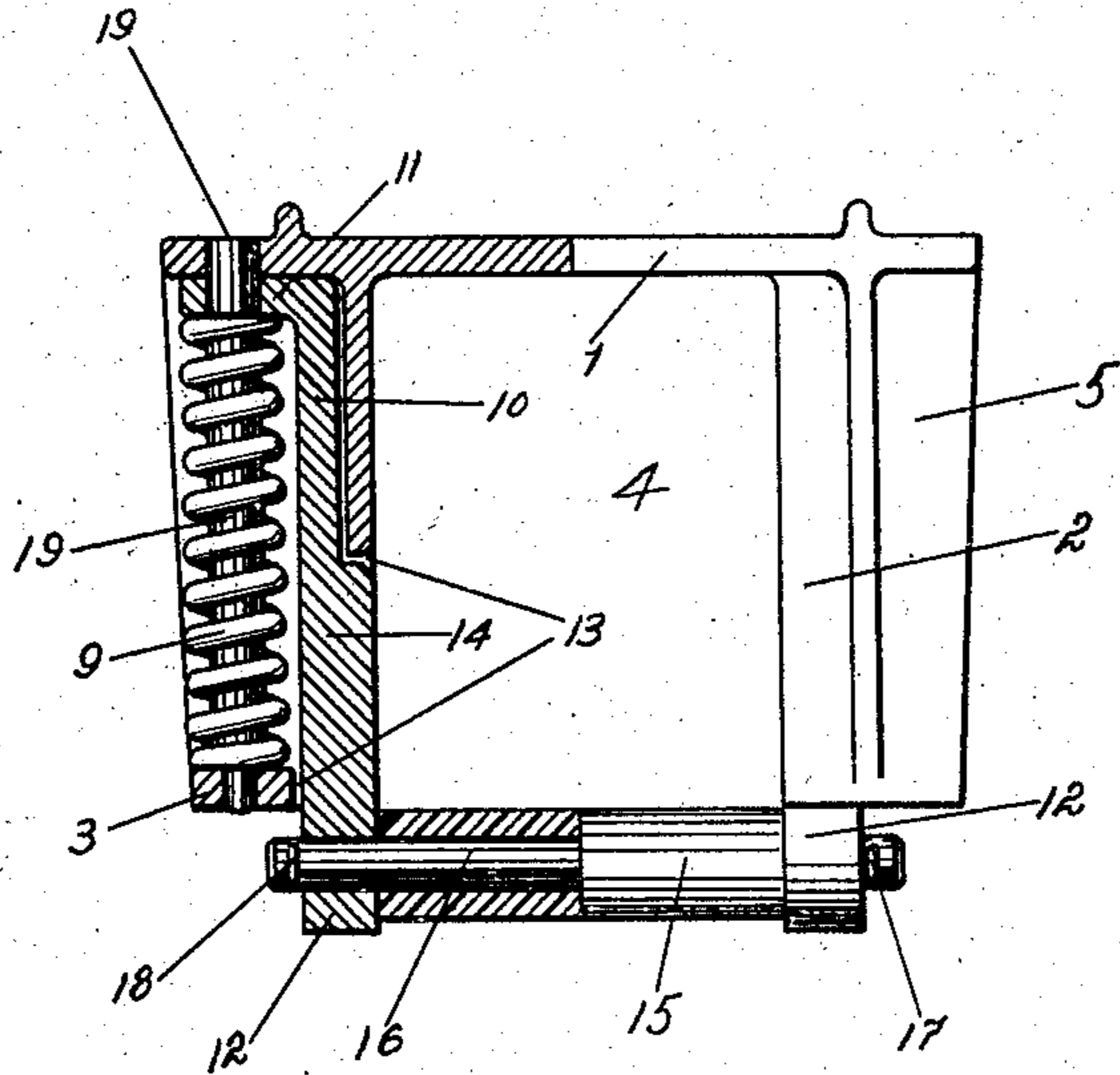


Fig. 2.

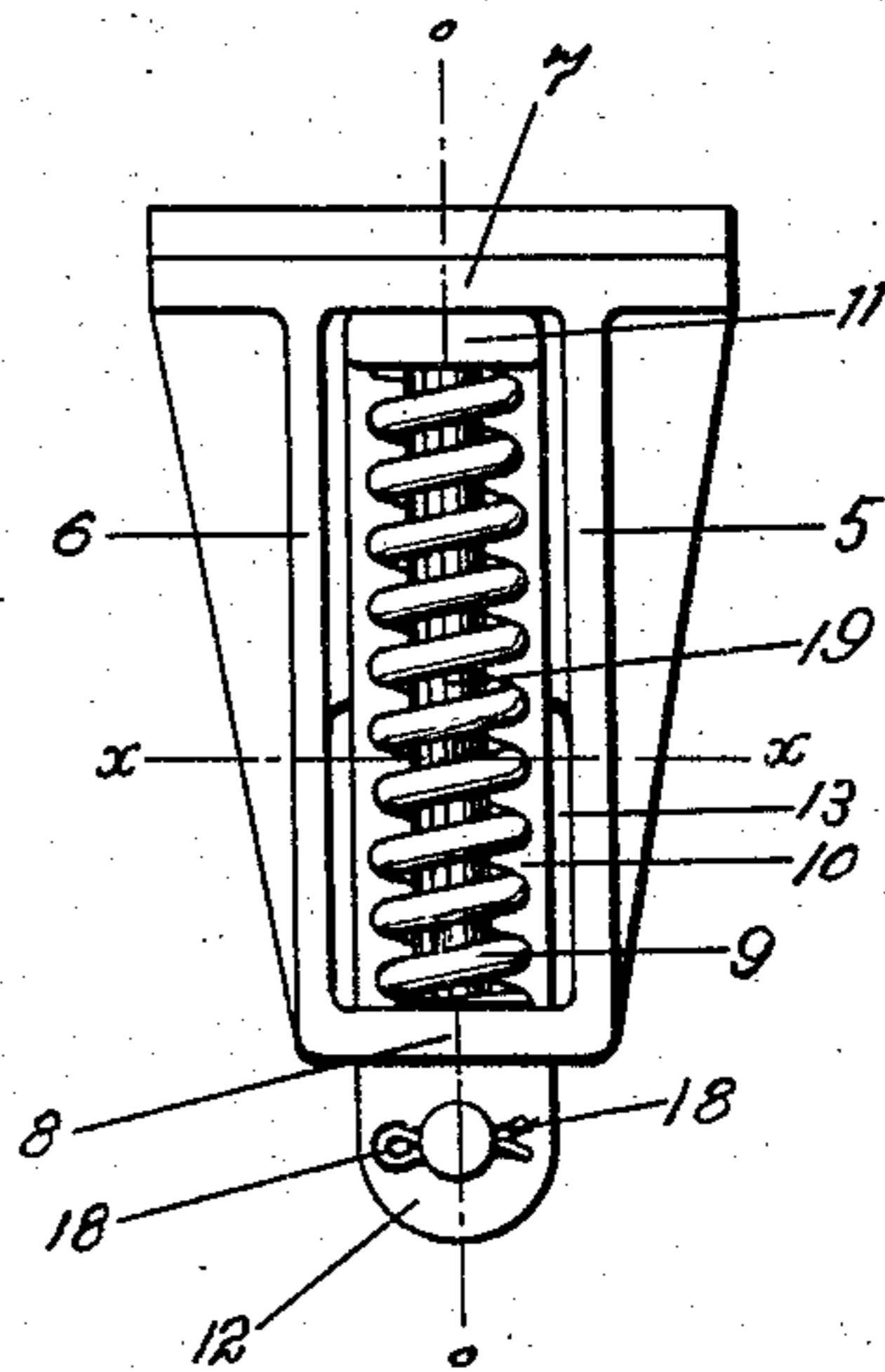


Fig. 1.

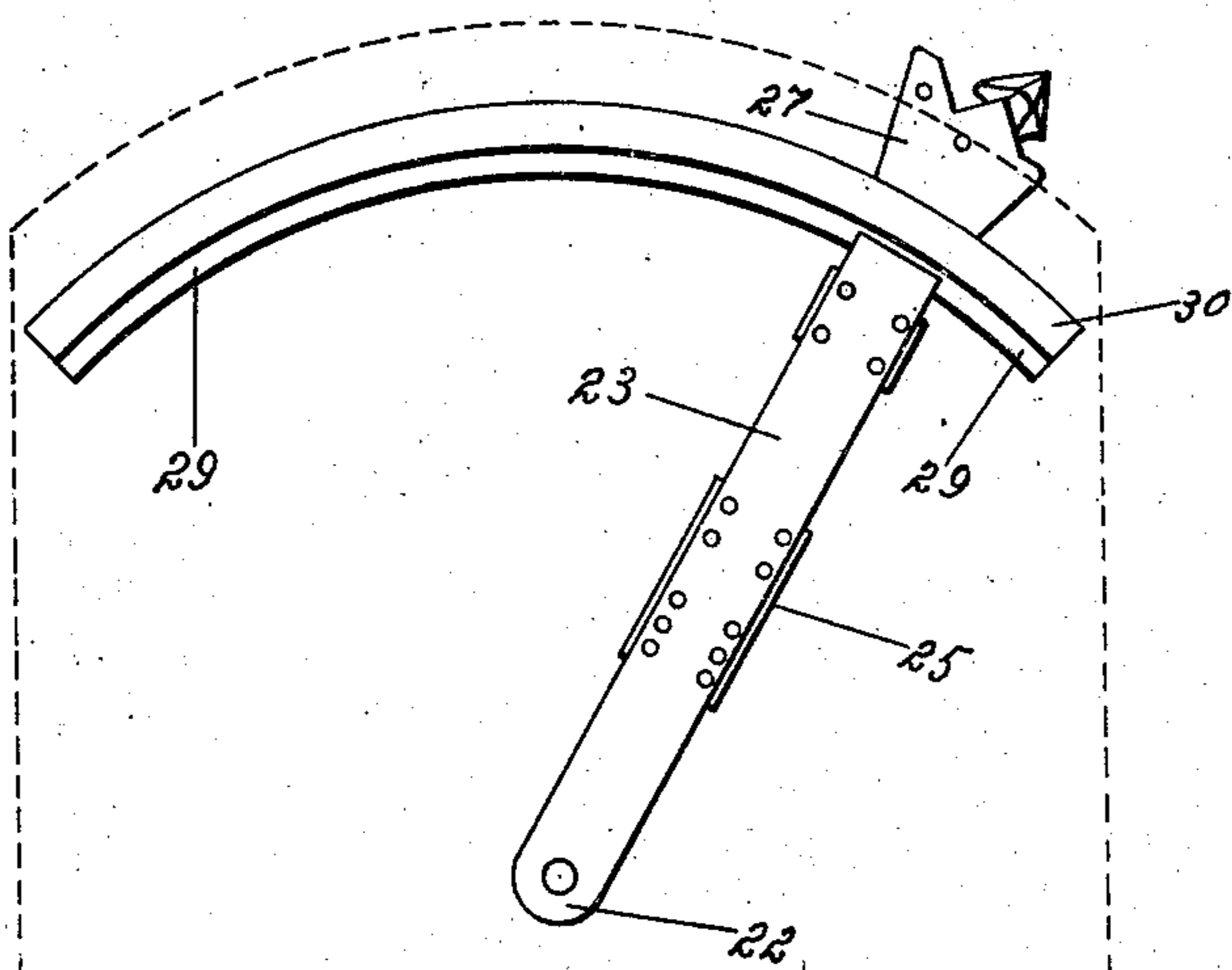


Fig. 4.

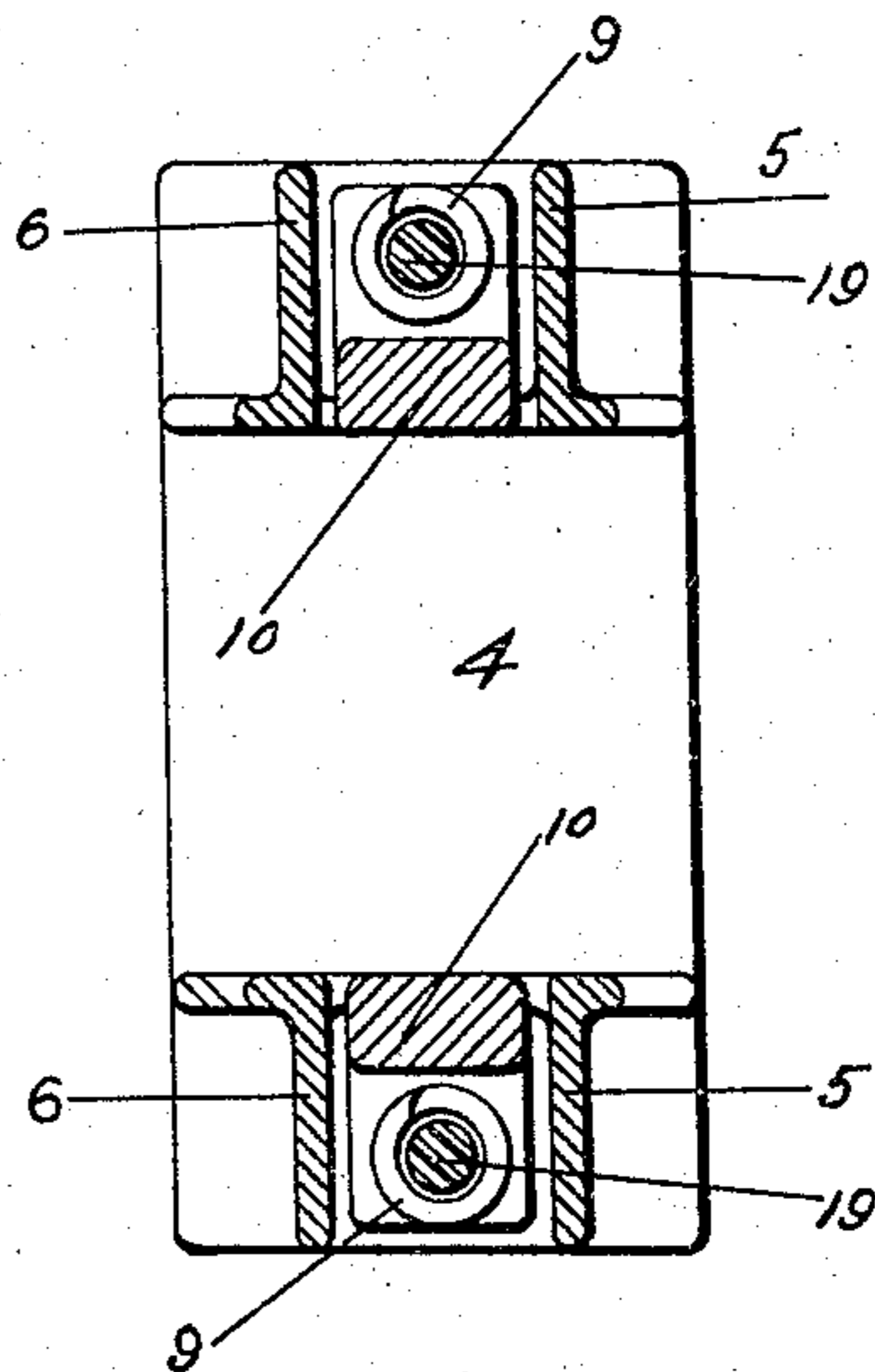


Fig. 3.

Witnesses

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2 SHEETS—SHEET 2.

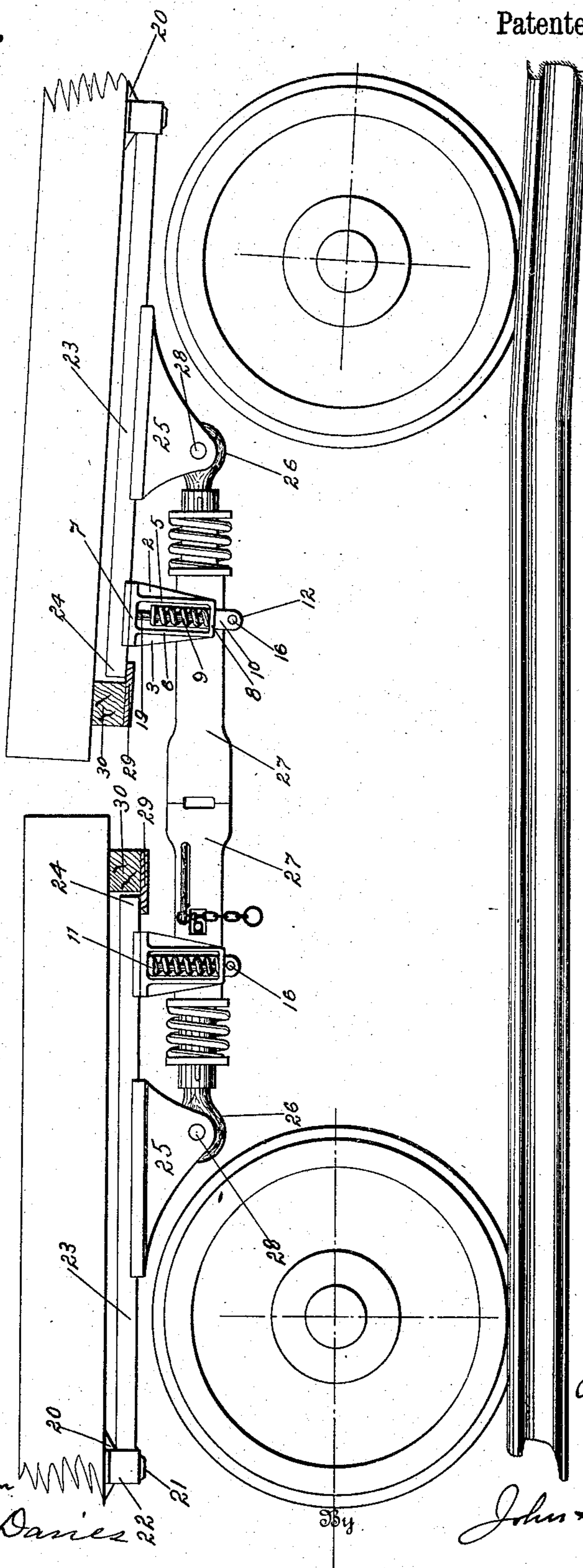


Fig. 5.

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UNITED STATES PATENT OFFICE.

CHARLES H. TOMLINSON, OF MANSFIELD, OHIO, ASSIGNOR TO THE TOMLINSON COUPLER COMPANY, OF DENVER, COLORADO, A CORPORATION OF SOUTH DAKOTA.

DRAW-BAR CARRIER.

No. 928,890.

Specification of Letters Patent.

Patented July 20, 1909.

Original application filed January 26, 1907, Serial No. 354,352. Divided and this application filed August 17, 1907. Serial No. 388,957.

To all whom it may concern:

Be it known that I, CHARLES H. TOMLINSON, citizen of the United States, residing at Mansfield, in the county of Richland and State of Ohio, have invented certain new and useful Improvements in Draw-Bar Carriers, of which the following is a specification.

My invention relates to a movable hanger or draw-bar carrier and comprises certain new and novel means of movably suspending the frames carrying the draw-bars to provide for radial or lateral movement.

The invention herewith described is a division of an application filed by applicant Jan. 26, 1907, Serial No. 354,352.

The present invention consists in pivotally securing a bar to the bottom of a car with means of movably suspending the free end thereof (for radial movement) upon a channel angle or similar bar and means of attaching the movable frame thereto. I attain these and other objects by the mechanism illustrated in the accompanying drawings in which—

Figure 1 is a side elevation of my device showing the supporting yoke and spring in normal position. Fig. 2 is a front elevation of the carrier with one side in vertical section taken through the line O O of Fig. 1. Fig. 3 is a horizontal section of the carrier taken through the line X X of Fig. 1. Fig. 4 is a plan view of the draw-bar carrier and the supporting means showing the application of the pivotal bar and means of supporting it for radial or lateral movement. Fig. 5 shows a section of a track with one end inclined downward illustrating a grade with sections of two cars coupled upon the grade with the draw-bars and couplers supported by the movable frame and pivotal bar and its supporting mechanism.

In the construction of my device, I prefer to use a frame comprising a base 1 with two downwardly depending arms 2 and 3 spaced apart leaving an opening 4. Vertical flanges 5 and 6 are made integral with said arms and spaced apart and connect with the horizontal upper and lower flanges 7 and 8 respectively, and in conjunction therewith form recesses or casings to inclose and support the compression springs 9, the purpose of which will be described hereinafter.

Hangers 10 are provided for each casing with the upper extremities 11 turned at an

angle with the body portion and adapted to 55
align with suitable apertures formed in the
horizontal flanges 7. The lower extremities
12 of the hangers have eyes formed thereon
with apertures formed therein at right an-
gles to the apertures formed in the upper 60
extremities. An opening 13 is provided in
the lower extremities and side walls of the
arms 2 and 3 to permit the lower extremi-
ties of the hangers to be inserted therein
leaving the enlarged lower portion 14 of the 65
hangers extending inwardly flush with the
inner faces of the arms 2 and 3 retaining
them in place and preventing the draw-bars
from catching under the inner walls of the
arms upon their return to normal position 70
when relieved of undue strain or pressure
caused by the cars being on a different grade
or plan when coupled. A sleeve 15 is inter-
posed between the inner faces of the enlarged
lower portions of the hangers and mounted 75
upon the pin 16 which is held in place by the
cotter pins 17 and 18.

The hangers 10 and sleeve 15 when con-
nected together form a substantially invert-
ed shaped yoke which is adapted to move 80
vertically as will be described hereinafter.

The coil springs 9 are inserted in the cas-
ings formed by the flanges as hereinbefore
described with the lower extremities resting
on the horizontal flanges 8, and the upper 85
extremities contacting with the under por-
tion of the angular ends 11 of the hangers
10 thereby yieldingly suspending the parts
comprising the inverted yoke. Through-
going bolts 19 pass downwardly through 90
the flanges 8 leaving the lower extremities
projecting below the arms 2 and 3 and they
are retained in place by any ordinary fasten-
ing means.

The coil compression springs 9 or other 95
supporting means are made of such a size
or tension as will counter balance the weight
of the inverted yoke, the draw-bar and
coupling mechanism that they yieldingly
support whereby the draw-bar and coupling 100
mechanism are movably retained on a plane
for coupling purposes under normal condi-
tions as, for instance, when the cars are upon
the same grade.

The above describes the functions and 105
structure forming part of the application
described in Serial No. 354,352 and forms
no part of the present invention.

The invention comprising the subject matter of present application, will now be described.

A standard 20 is secured to the bottom of the car and is provided with a vertical pin or bearing 21 upon which one end 22 of the bar 23 is pivotally journaled permitting radial or lateral movement of the free end 24 when movement is imparted thereto. Intermediate of the ends 22 and 24, a bracket 25 is secured and moves with the bars 23. The depending portion of the bracket is bifurcated to receive the end 26 of the draw-bar 27 and is journaled upon a bearing, a pin 28 is provided for vertical movement of the draw-bar and coupling device. The base 1 of the frame is secured to the bar 23 adjacent to the end 24. The free end 24 of the pivotal bar 23 extends rearwardly from the trucks and is movably supported by the inwardly extending plate 29 which is attached to the beam 30.

It will be apparent that the coupling mechanism and appliances are supported by the means described and vertical and lateral movement of the couplers is provided for.

By the arrangement above described, a convenient supporting mechanism is provided with means to attach my draw-bar-carrier to any car, no matter how much the platform of the car over-hangs the trucks. To make the application it is only necessary to change the length of the pivotal bar 23. A channel U or similar shaped bar can be used in place of the plate 29 and beam 30 to support the free end of the pivotal bar 23 if desired.

The operation of my device is as follows: The rear extremities of the draw-bars 27 are pivotally attached for vertical movement to the bracket 25. The free end of the pivotal bar 23 is movably supported upon the plate 29 for lateral movement and carries the frame of the draw-bar and appliances thus providing for combined vertical and lateral movement. The free end of each draw-bar 27 is supported by the sleeve 16 between faces of the enlarged portions 14 of the

hangers 10, and the tension of the springs 9 are adjusted to maintain the draw-bar and coupling devices at the same plane as the car body under normal conditions. When one (or both) of the cars are upon a different grade as shown in Fig. 5, a strain or pressure is brought to bear upon the sleeve 16 forcing the sleeve and hangers supporting it downward by the tilting of the car body and compressing the springs 9 to such an extent as will keep the draw-bars and coupling devices on a plane with each other when coupled, although one or both of the cars are running upon different grades with respect to each other. When the sleeve and hangers forming the inverted yoke are relieved from the strain or pressure, the sleeve automatically returns to its normal position for coupling purposes.

Having fully described my invention, what I claim and desire to secure by Letters Patent is:

1. In a draw-bar carrier, the combination of a flat bar secured to the lower portion of the car; of a yoke-shaped frame supported by said bar for lateral movement, a yoke-shaped yielding supporting means mounted on said frame for vertical movement, a bracket secured to said flat bar having means to pivotally connect a draw-bar, and means to support the free end of the flat bar.

2. In a draw-bar carrier, the combination of a bar secured to the lower portion of the car; of a yoke-shaped frame supported by said bar for lateral movement, a yoke-shaped yielding supporting means mounted on said frame for vertical movement, a bracket secured to said bar having means to pivotally connect a draw-bar, means to support the free end of the bar as and for the purpose described.

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

CHARLES H. TOMLINSON.

Witnesses:

JOHN H. COSS,
PEARL ACKERMAN.