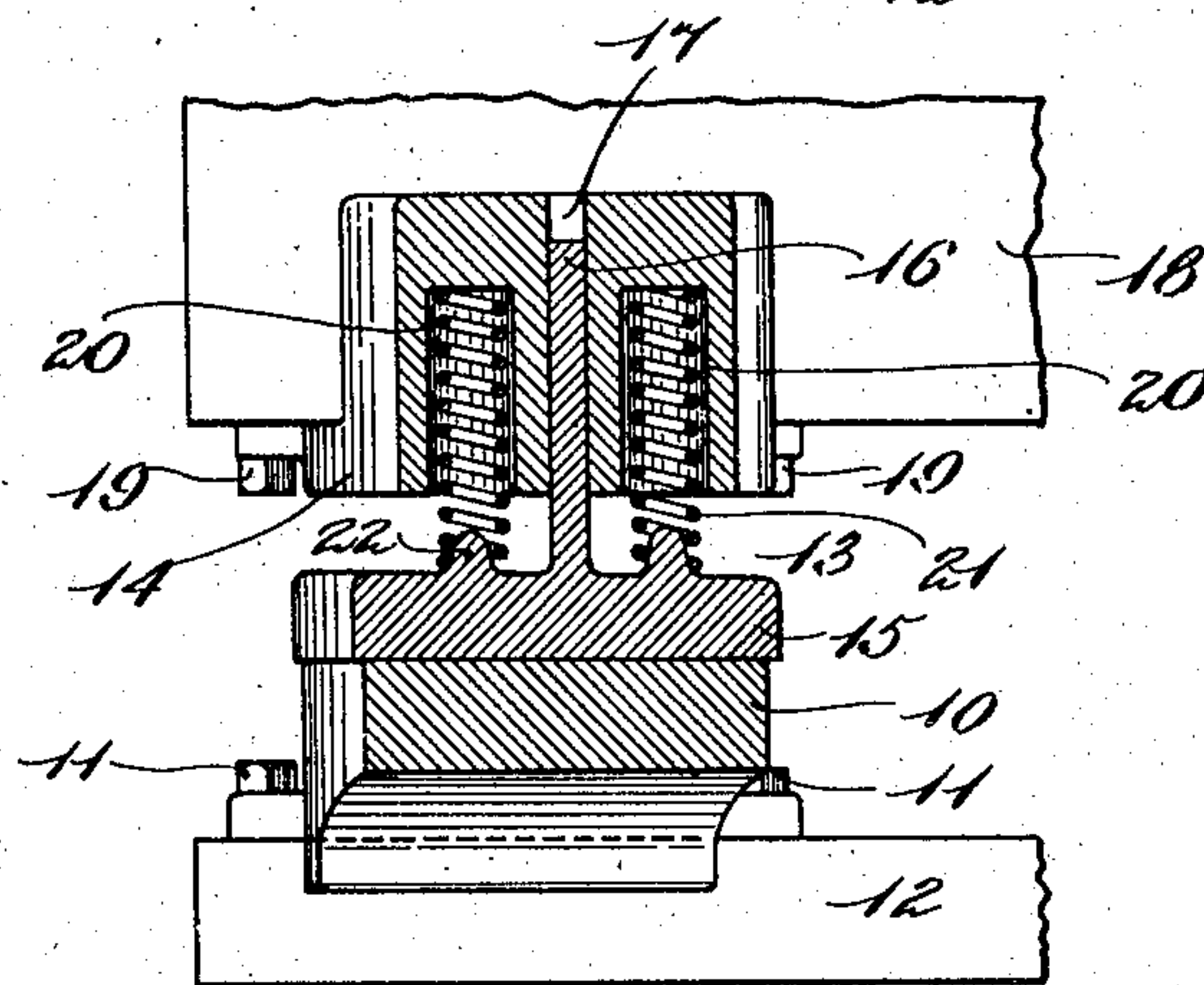
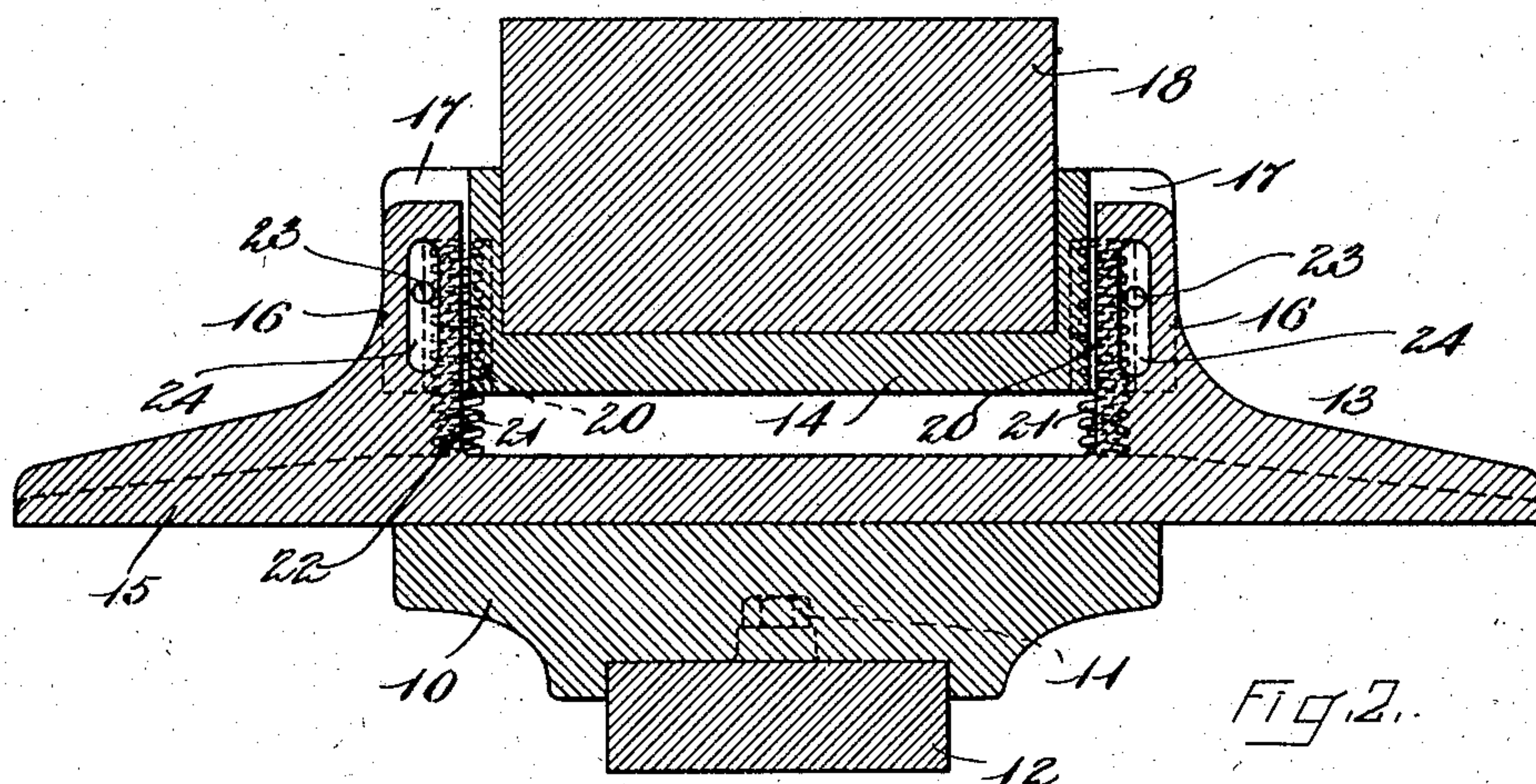
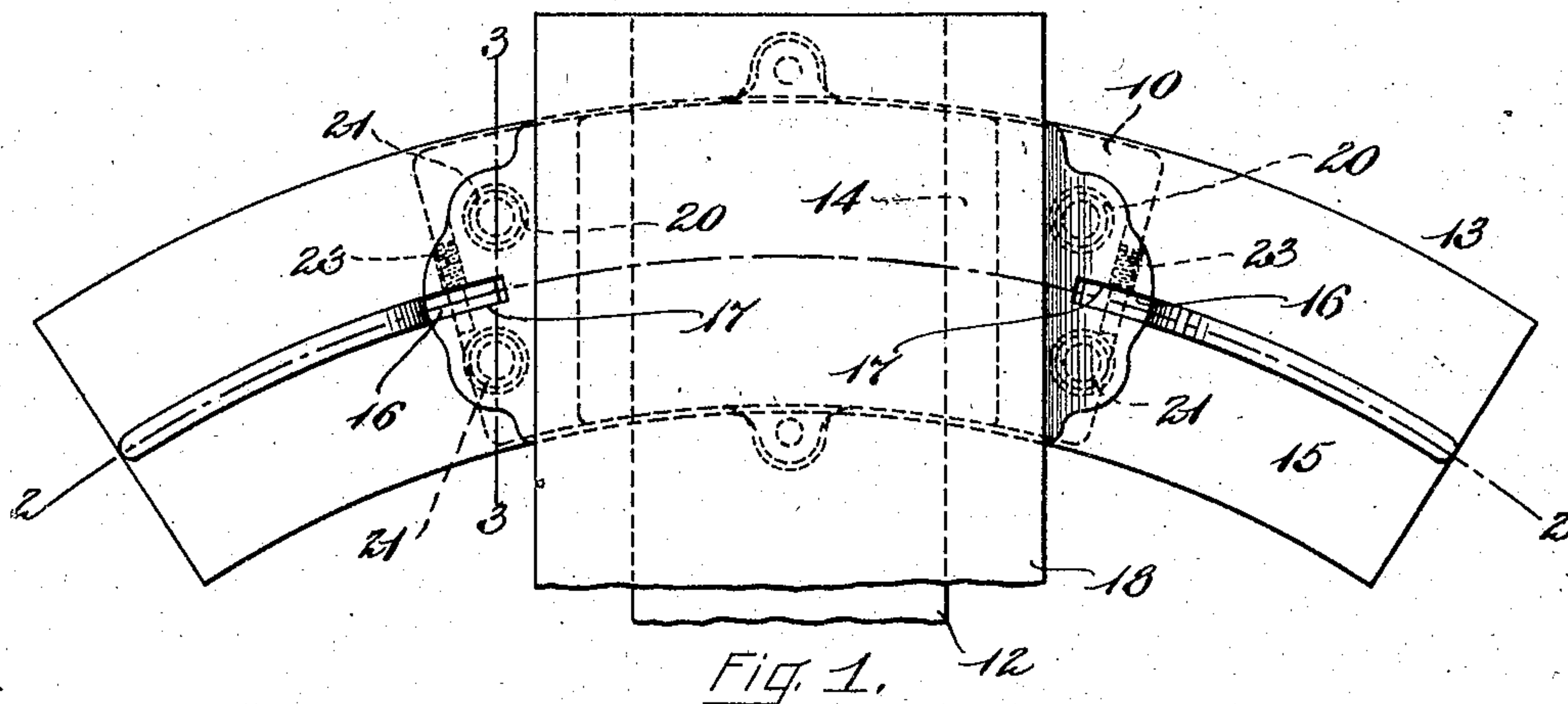


R. L. ELLERY.
SIDE BEARING FOR CARS.
APPLICATION FILED MAY 20, 1904.



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UNITED STATES PATENT OFFICE.

ROBERT L. ELLERY, OF PORTSMOUTH, NEW HAMPSHIRE.

SIDE BEARING FOR CARS.

SPECIFICATION forming part of Letters Patent No. 791,760, dated June 6, 1905.

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To all whom it may concern:

Be it known that I, ROBERT L. ELLERY, a citizen of the United States, residing at Portsmouth, in the county of Rockingham and State of New Hampshire, have invented new and useful Improvements in Side Bearings for Cars, of which the following is a specification.

This invention relates to a sliding side bearing for cars so constructed that the sliding surfaces of the two main parts of said bearing—viz., the part attached to the car and the part attached to the car-truck—shall be and remain in contact with each other in all the varying positions which said car and truck may assume with relation to each other.

The invention consists in a side bearing for car-trucks comprising a base-plate and a top plate adapted to slide one upon the other, said top plate formed in two parts—viz., a bolster-plate and a slide-plate constructed to slide vertically upon said bolster-plate.

The invention again consists in certain improved details of construction set forth in the following specification and particularly pointed out in the claims thereof.

Referring to the drawings, Figure 1 is a plan view of my improved side bearing for cars, together with a portion of a car-bolster and truck-bolster to which said side bearing is attached. Fig. 2 is a section taken on line 2 2 of Fig. 1. Fig. 3 is a section taken on line 3 3 of Fig. 1 looking toward the right in said figure.

Like numerals refer to like parts throughout the several views of the drawings.

In the drawings, 10 is a base-plate, which is fastened by bolts 11 to a truck-bolster 12. The upper surface of said base-plate 10 is in sliding contact with a top plate 13, said top plate formed in two parts—viz., a bolster-plate 14, adapted to be fastened to a car-body and extending longitudinally thereof, and a slide-plate 15, constructed to slide vertically on said bolster-plate. The slide-plate 15 is provided with vertical flanges 16 16, which project into grooves or ways 17, formed in opposite ends, respectively, of the bolster-plate 14, which is rigidly fastened to a car-bolster 18 by screws or bolts 19. The bolster-plate 14 is provided with recesses 20 20

to receive springs 21 21, which project downwardly therefrom, with their lower ends resting upon the top of the slide-plate 15. Projections 22 are provided upon the upper face of said slide-plate, which project into the lower ends of said springs 21 in order to guide and centrally locate the same. It will be understood that the slide-plate 15 and bolster-plate 14 form together a top plate 13, the action of the springs 21 being to force the slide-plate 15 downwardly away from the bolster-plate 14 and in contact with the base-plate 10.

When the car-body is raised from the truck in order to prevent the slide-plate 15 from dropping off of the bolster-plate 14, screw-threaded pins 23 are provided which are fast to said car-bolster upon opposite sides, respectively, of the ways 17 and project through vertical slots 24, provided in the flanges 16 of the slide-plate 15.

The operation of the device hereinbefore described is as follows: The base-plate 10 being fastened to the truck-bolster 12 and the bolster-plate 14 rigidly fastened to the car-bolster 18, while the slide-plate 15 is interposed between said base-plate 10 and bolster-plate 14, free to slide vertically upon said bolster-plate and horizontally upon said base-plate, it will be seen that as the truck turns upon its pivotal center the upper surface of the base-plate will slide horizontally along the lower face of said slide-plate. As the cars round a curve and rock laterally the springs 21 will yield to allow the slide-plate 15 to rise or fall, as may be necessary in order to keep the sliding under face of said slide-plate in contact with the upper face of said base-plate.

One of the principal advantages derived from the use of my improved side bearing consists in the fact that in the lateral rocking of the car relatively to the truck the sliding surfaces of the top plate and base-plate, respectively, will be always held in contact one with the other, so that there will be no hammering or other undesirable action between the top plate and base-plate. It will be understood that the springs interposed between the bolster-plate and the slide-plate act as cushions to prevent any hammering between the different parts of the side bearing form-

ing a yielding support for the side of the car in a structure, the different parts of which are adapted to slide both horizontally and vertically with relation to each other.

5 Another advantage derived from my improved side bearing is that the same may be introduced on cars as now manufactured in place of the side bearings in ordinary use.

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

1. A side bearing for car-trucks comprising in its construction a base-plate 10 and a top plate 13, adapted to slide one upon the other,
15 said top plate formed in two parts, viz., a bolster-plate 14 and slide-plate 15 constructed to slide vertically upon said bolster-plate.

2. A side bearing for car-trucks comprising in its construction a base-plate 10 and a top
20 plate 13, adapted to slide one upon the other, said top plate formed in two parts, a bolster-plate 14 and a slide-plate 15 constructed to slide vertically upon said bolster-plate, and
25 springs 21 interposed between said slide-plate 15 and bolster-plate 14.

3. A side bearing for car-trucks comprising in its construction a base-plate 10 adapted to be fastened to a truck and a top plate 13, said
30 plates adapted to slide one upon the other, said top plate formed in two parts, viz., a bolster-plate 14 adapted to be fastened to a car-body, and a slide-plate 15 constructed to slide vertically on said bolster-plate.

4. A side bearing for car-trucks comprising
35 in its construction a base-plate 10 adapted to be fastened to a truck and a top plate 13, said plates adapted to slide one upon the other, said top plate formed in two parts, viz., a bolster-plate 14 adapted to be fastened to a car-body
40 and a slide-plate 15 constructed to slide vertically on said bolster-plate, and springs interposed between said vertical slide-plate 15 and bolster-plate 14.

5. A side bearing for car-trucks comprising
45 in its construction a base-plate 10 adapted to be fastened to one side of a truck and a top plate 13, said plates adapted to slide one upon the other, said top plate 13 formed in two parts, viz., a bolster-plate 14 adapted to be
50 fastened to one side of a car-body and extending longitudinally thereof and a slide-plate 15 constructed to slide vertically on said bolster-plate.

6. A side bearing for car-trucks comprising
55 in its construction a base-plate 10 adapted to

be fastened to one side of a truck and a top plate 13, said plates adapted to slide one upon the other, said top plate 13 formed in two parts, viz., a bolster-plate 14 adapted to be
60 fastened to one side of a car-body and extending longitudinally thereof, and a slide-plate 15 constructed to slide vertically on said bolster-plate, and springs 21 interposed between said vertical slide-plate 15 and bolster-plate 14.

7. A side bearing for car-trucks comprising
65 in its construction a base-plate 10 adapted to be fastened to one side of a truck and a top plate 13, said plates adapted to slide one upon the other, said top plate 13 formed in two parts, viz., a bolster-plate 14 adapted to be
70 fastened to one side of a car-body and extending longitudinally thereof, and a slide-plate 15 constructed to slide vertically on said bolster-plate, said slide-plate 15 provided with vertical
75 flanges 16 which project into grooves 17 formed in opposite ends, respectively, of said bolster-plate 14.

8. A side bearing for car-trucks comprising in its construction a base-plate 10 adapted to be fastened to a truck, a bolster-plate 14 adapt-
80 ed to be fastened to a car-body, a slide-plate 15 constructed to slide horizontally upon said base-plate and vertically upon said bolster-plate, springs interposed between said slide-plate 15 and bolster-plate 14 acting to force
85 said bolster and slide plates apart, and means to limit the distance to which said bolster-plate and slide-plate may be forced apart.

9. A side bearing for car-trucks comprising in its construction a base-plate 10 adapted to
90 be fastened to one side of a truck and a top plate 13, said plates adapted to slide one upon the other, said top plate 13 formed in two parts, viz., a bolster-plate 14 adapted to be fastened to one side of a car-body and extend-
95 ing longitudinally thereof, and a slide-plate 15 constructed to slide vertically on said bolster-plate, said slide-plate 15 provided with vertical flanges 16 which project into grooves 17 formed in opposite ends, respectively, of said
100 bolster-plate 14, and springs located in recesses 20 provided in said bolster-plate 14.

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

ROBERT L. ELLERY.

Witnesses:

CHARLES S. GOODING,
ANNIE J. DAILEY.