

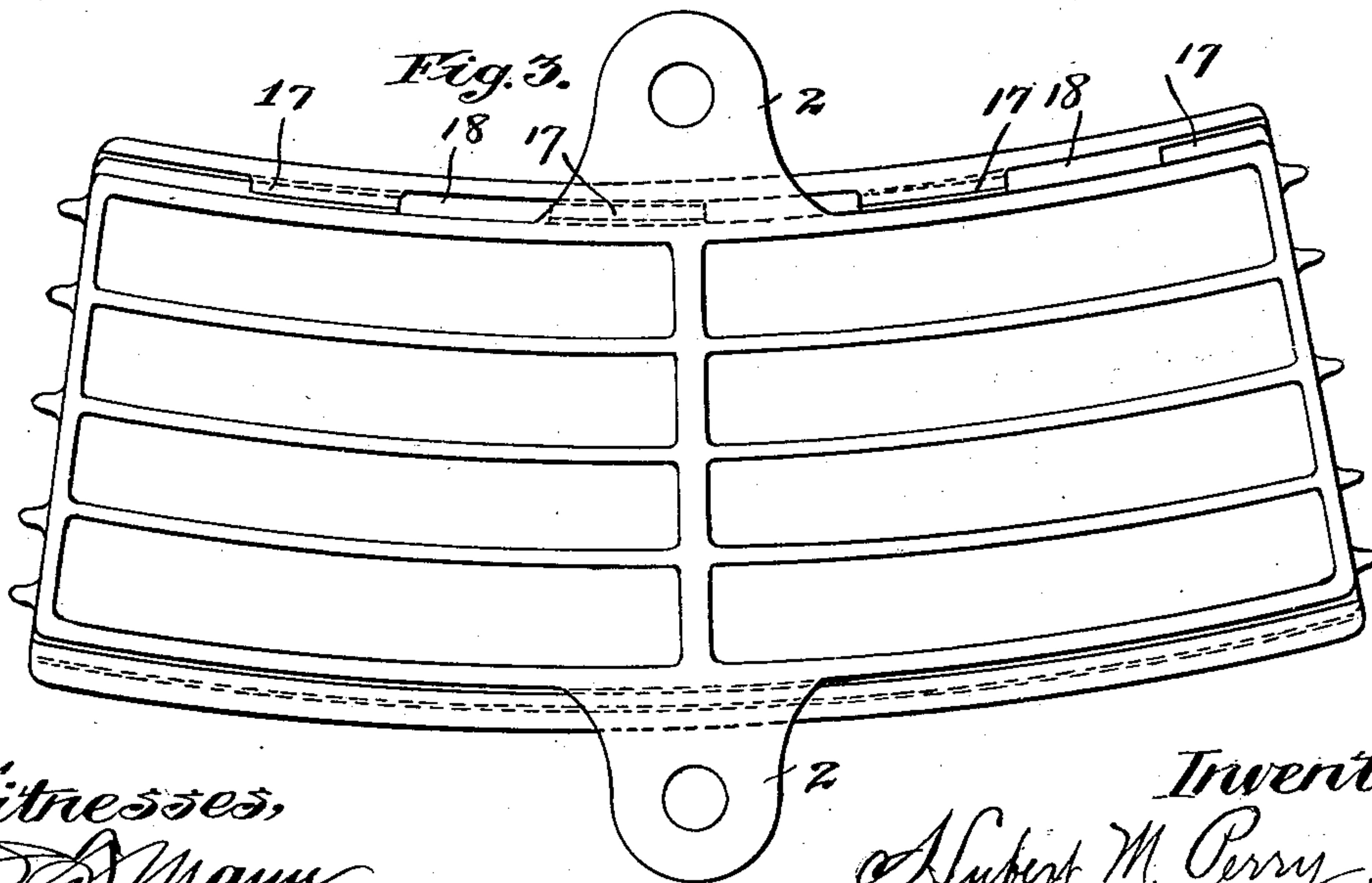
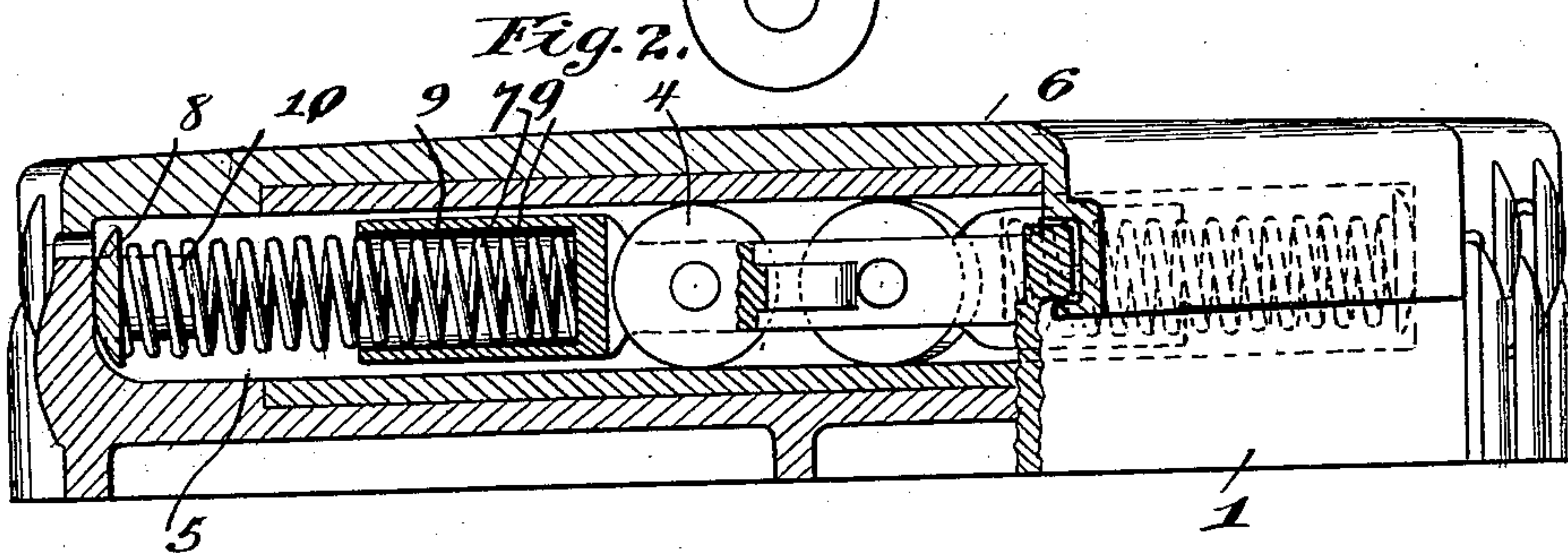
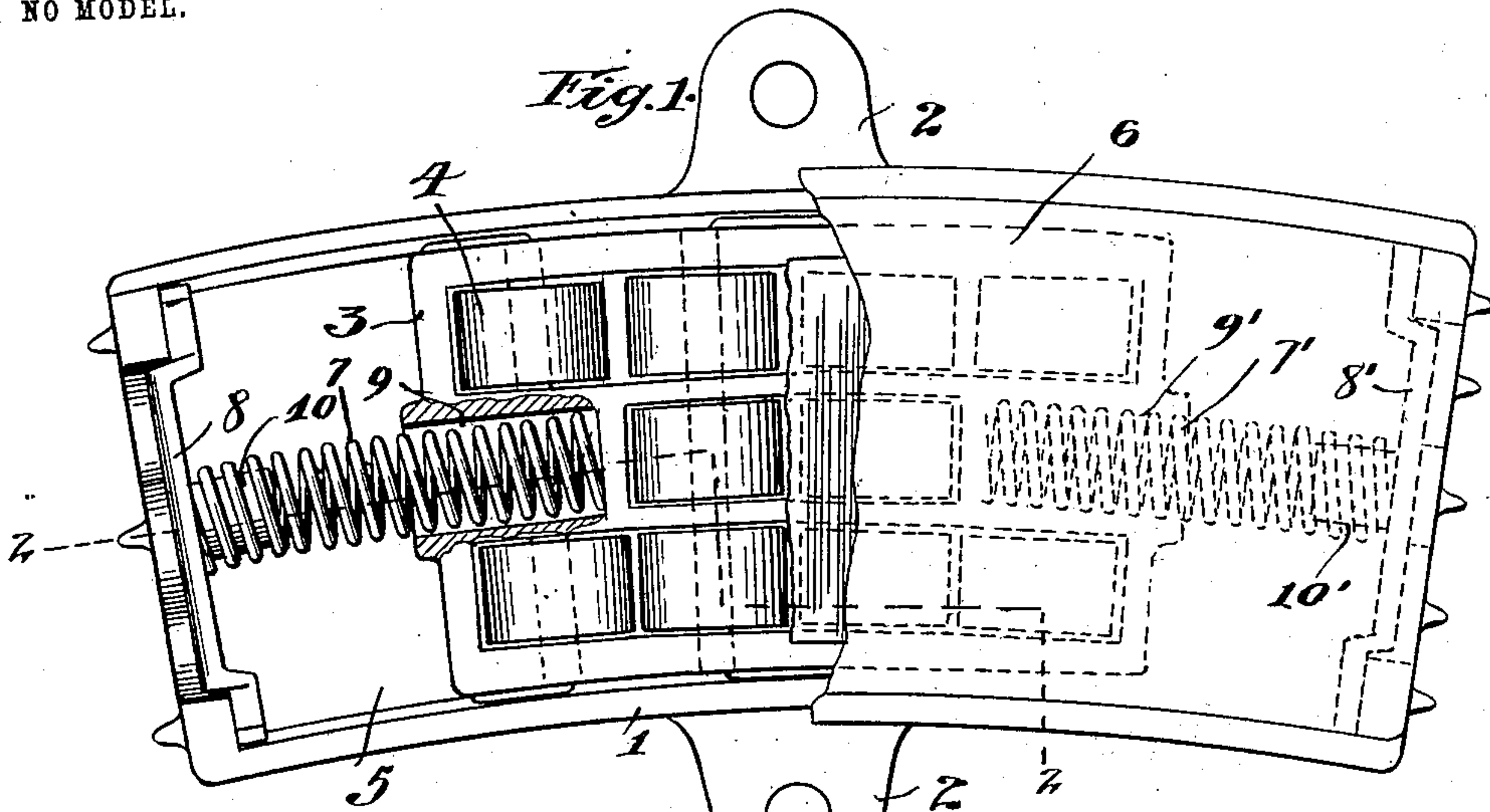
No. 728,757.

PATENTED MAY 19, 1903.

H. M. PERRY.  
SIDE BEARING FOR CARS.  
APPLICATION FILED MAR. 4, 1903.

2 SHEETS—SHEET 1.

NO MODEL.



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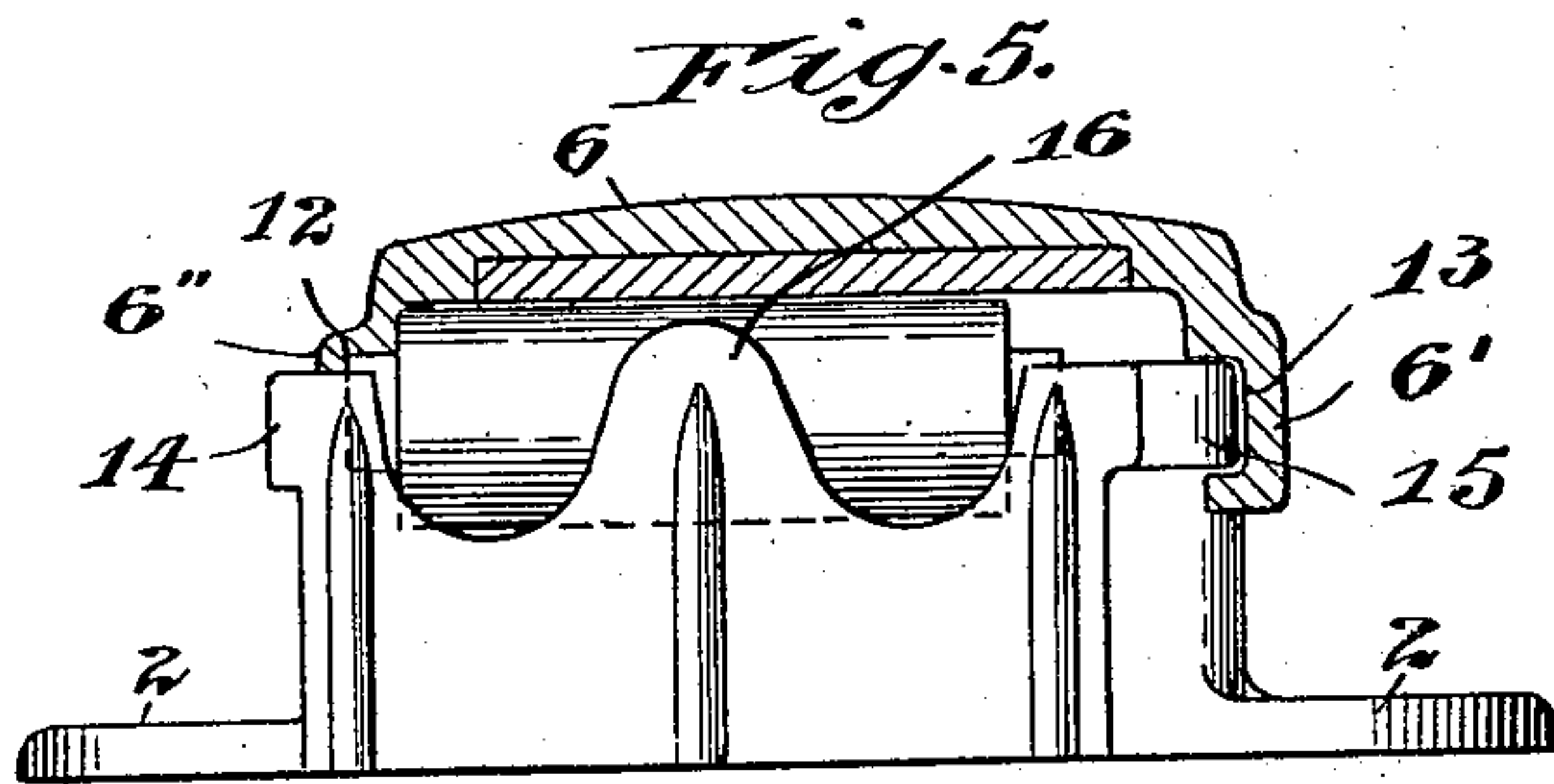
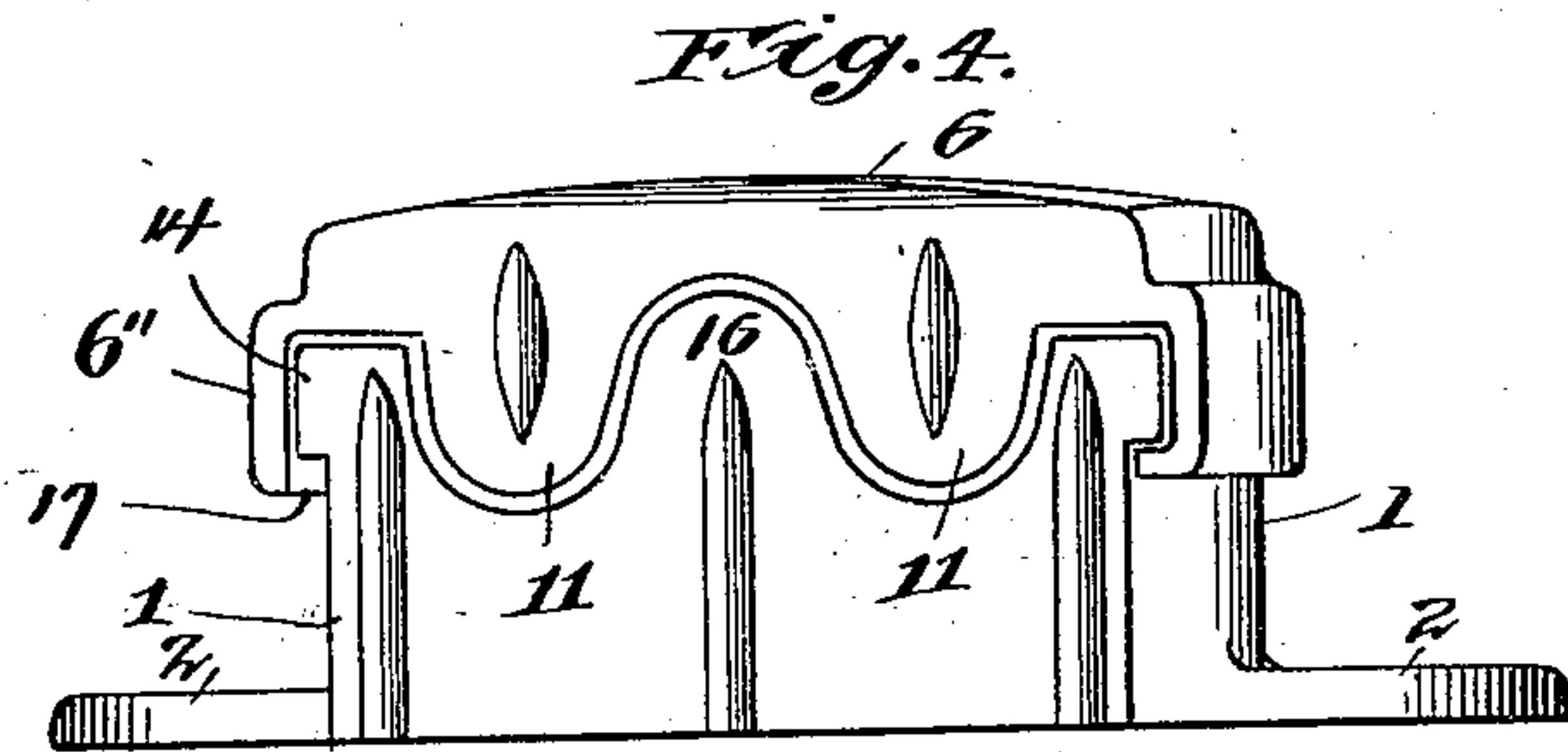
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# UNITED STATES PATENT OFFICE.

HUBERT M. PERRY, OF CHICAGO, ILLINOIS, ASSIGNOR TO HENRY D. LAUGHLIN, OF CHICAGO, ILLINOIS.

## SIDE BEARING FOR CARS.

SPECIFICATION forming part of Letters Patent No. 728,757, dated May 19, 1903.

Application filed March 4, 1903. Serial No. 146,217. (No model.)

*To all whom it may concern:*

Be it known that I, HUBERT M. PERRY, a resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Side Bearings for Cars, of which the following is a specification.

This invention relates to improvements in side bearings of the antifriction type, and has for its object to provide improvements in the details of construction of side bearings of the general character set forth in my prior patent, No. 672,648, granted April 23, 1901.

The invention consists in the matters herein after described, and more particularly pointed out in the appended claims, and will be readily understood from the following description, reference being had to the accompanying drawings, in which—

Figure 1 is a plan view of the parts of the upper bearing-plate member broken away to expose the arrangement of the roller-bearings within the base member. Fig. 2 is a view partly in side elevation and partly in longitudinal vertical section, the sectional portion being taken approximately on line 2 2 of Fig. 1. Fig. 3 is a bottom plan view of the bearing. Fig. 4 is an end elevation thereof, and Fig. 5 a view partly in end elevation and partly in transverse vertical section.

The general construction of the device is like that shown and described in my said prior patent and need not, therefore, be described in detail.

Described generally, 1 designates as a whole a box-like base member provided with suitable parallel lugs 2, whereby it may be rigidly mounted upon a bolster, said base member having the form of an open-topped oblong and approximately rectangular box, curved, however, throughout its length to conform to the arc of oscillation of that part of the bolster upon which it is mounted. Within said member is arranged a roller-carriage 3, which may be of any suitable construction and is provided with a series of roller elements 4, mounted within the carriage to move with the latter. The several roller elements rest and travel directly upon the floor 5 or inner surface of the base of the carriage and serve

to support the top bearing-plate 6, which rests directly upon said rollers. In order to center the carriage relatively to the bearing-box, a pair of coiled expansion-springs 7 and 7' is provided, which are arranged at each end of the carriage, with their axes extending substantially parallel to the line of travel of the carriage, one end of each spring being arranged to abut against the proximate end of the carriage and the opposite end against a bearing-plate 8 or 8', which, as will hereinafter appear, is caused to travel with the bearing-plate or cover 6 of the side bearing. The inner ends of the springs 7 and 7' extend within sockets 9 9', formed in the respective ends of the carriage, this construction being adapted for the double purpose of enabling longer springs to be used and also in order that the outer end margins of said sockets may act as stops to limit the approach of the bearing-plates 8 and 8'. The outer ends of said centering-springs are held in proper engagement with the bearing-plates by means of centering-lugs 10 10', respectively.

The bearing-plates 8 8' are constructed to fit at their ends easily between the side walls of the bearing-box, so as to slide freely therebetween, and in order that the top bearing-plate 6 may have operative engagement with said bearing-plates to carry the latter endwise with it as the top plate reciprocates the latter is provided at each end with depending portions or lugs 11, which overlap the outer surfaces of the corresponding spring-supporting bearing-plates. The top plate is made coextensive with the bearing-box and is provided at each side with depending side walls or flanges 6' and 6'', which are provided internally with grooves 12 and 13, respectively, which engage and slide upon correspondingly-shaped ribs 14 and 15, formed upon the upper margins of the side walls of the box, thereby holding the bearing-plate against lifting up, while at the same time permitting it to reciprocate freely over the box. The end walls of the bearing-box are provided with upstanding portions 16, which interfit with the depending portions 11 of the top plate and serve to arrest and support the spring-plates 8 and 8' when the latter reach their outer limits.



its of movement, and thus serve to center both the carriage and the top plate.

In the construction set forth in my said prior patent one of the end walls of the bearing-box was separately formed in order that the parts might be assembled. It is the object of the present invention to dispense with this separately-formed end wall, the latter being made integrally with the remainder of the bearing-box. To enable the top bearing-plate to be engaged with the bearing-box, with its depending flanges 6' and 6'' interlocked with the ribs 14 and 15 of the bearing-box, I construct the inturned portion of one of said flanges (6'' in the present instance) which underlies the corresponding rib 14 of a plurality of interrupted sections 17, spaced at intervals apart, and I provide the rib 14 with a series of interruptions or notches 18, which are of equal width and are adapted to register with the portions 17 when the bearing-plate is shifted endwise to a certain position. Preferably and as shown herein the flange provided with the interrupted portions is that flange which is upon the side of the box nearest to the axis of the bolster, and the interfitting lugs or projections 17 and recesses are so located relatively to each other that they register when the top bearing-plate is shifted from its centered or normal position about one-half the distance of its throw in either direction. When thus brought into register, the inner edge of the top bearing-plate may be turned up so as to pass the projections 17 through the recesses 18, and thus disengage that edge of the bearing-plate from the box, whereupon the opposite edge may be disengaged by simply shifting the bearing-plate bodily in a direction transversely of the length of the box. It will be understood that the fit between the inner groove 13 of the depending flange 6 and the rib 15 is not so accurate as to prevent this tilting-up movement described. By locating the lugs 17 and recesses 18 in the relation described there is no liability of the top bearing-plate becoming accidentally discharged, for the reason that the bearing-plate is only shifted when under pressure and being acted upon by the contacting part of the car-body.

In assembling the parts the operator will first adjust the carriage with its roller-bearings and then assemble the springs and bearing-plates in position within the bearing-box. Having thus arranged the moving parts, he will next hook the outer flanges 6' of the bearing-plate over the rib 15, tilt the bearing-plate down until the lugs 17 rest upon the rib 14, and then, holding the parts in this relation, shift the bearing-plate in one direction or the other longitudinally of the box until the projections and recesses register, whereupon the lugs 17 will pass downwardly through the recesses, and thus bring the ribs into fully-interengaged relation.

By the foregoing simple expedient I dispense with the necessity of making one end of the box separately, and therefore very materially lessen both the expense of manufacture and the expense and labor of assembling. Moreover, the device as a whole is better, because more nearly weather and dust proof. It is to be noted that the upper or outer surface of the bearing-plate is crowning both longitudinally and transversely. This is a feature of importance in connection with a bearing-plate constructed to fit upon the bearing-box substantially in the manner described, for the reason that the weight upon the bearing-plate will always be at or near the center of the latter and there will be no tendency to tilt up one edge or the other of the bearing-plate, as might be the case if the upper surface thereof were flat.

I claim as my invention—

1. In a side bearing for cars, the combination with a box-like base member, of a bearing-plate mounted to reciprocate thereon, interfitting rib-and-groove connections between the bearing-plate and box, located at opposite sides thereof, the rib and groove at one side being formed of interrupted sections whereby said parts are separable, for the purpose described.
2. In a side bearing for cars, the combination with a box-like base member provided at its longitudinal sides with external ribs, of a bearing-plate constructed to fit and slide upon said base member and provided at its longitudinal sides with internal grooves adapted to engage the ribs of the base, the rib at one side of the base being interrupted and the groove at the corresponding side of the bearing-plate provided with lateral openings adapted to register with, and receive the interrupted rib-sections of the base, and means normally holding said bearing-plate shifted to a position in which the said rib-sections and recesses are out of register.
3. In a side bearing for cars, the combination with a box-like base member, and a bearing-plate mounted to reciprocate upon said base member, rib-and-groove connections uniting said base and bearing-plate, an anti-friction roller-bearing device arranged within said base and serving to carry the bearing-plate centering, springs arranged to normally center said anti-friction device, and interconnections between said centering mechanism and the bearing-plate whereby the latter is also centered, one of the interconnecting ribs being formed of interrupted sections, and the corresponding groove which engages said rib being provided with lateral openings adapted to register with the corresponding rib-sections whereby said parts may be separated, said rib-sections and recesses being normally in offset relation to each other, substantially as described.
4. The herein-described side bearing for



cars, comprising the base 1 provided at its edge with the external laterally-projecting ribs 14 and 15, the rib 14 being provided with the recesses 18, and the bearing-plate 6 provided with the laterally-depending flanges 6', 6'' and internal grooves engaging the ribs of the base, the groove 12 being provided with the

lateral openings 17, and means acting to normally center said bearing-plate, substantially as described.

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