

R. M. LINDSAY.
CAR RETARDER OR CHOCK.
APPLICATION FILED NOV. 6, 1909.

962,967.

Patented June 28, 1910.

2 SHEETS - SHEET 1.

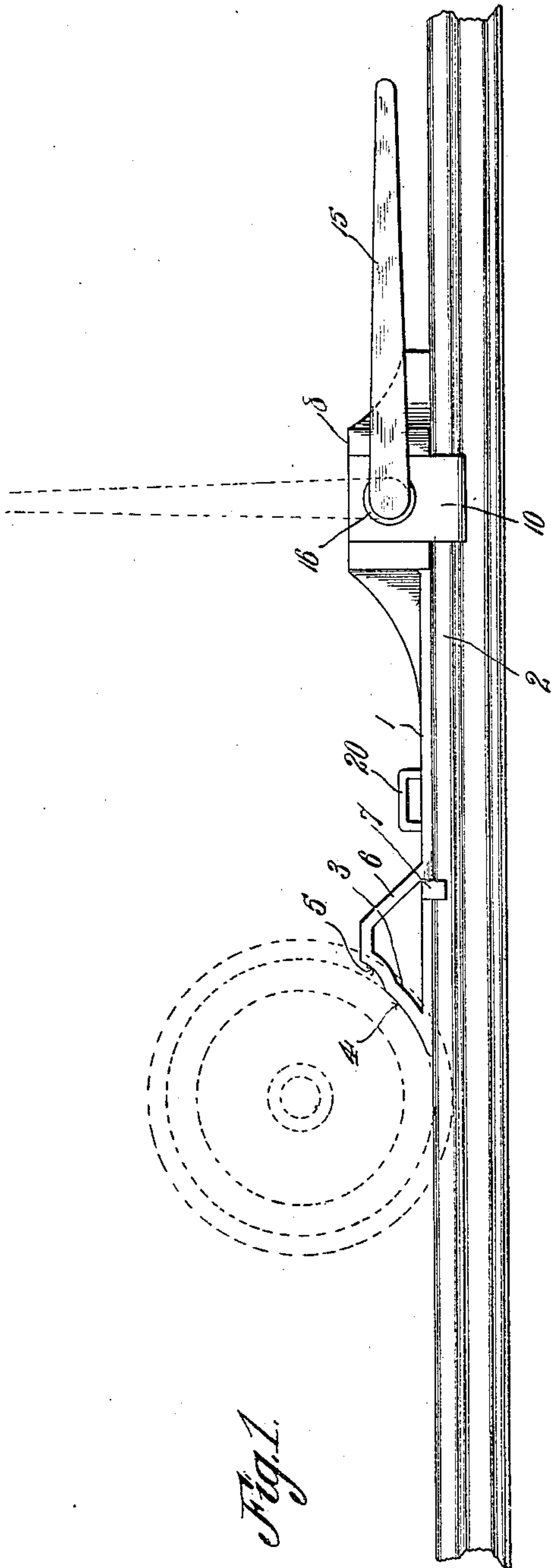


Fig. 1.

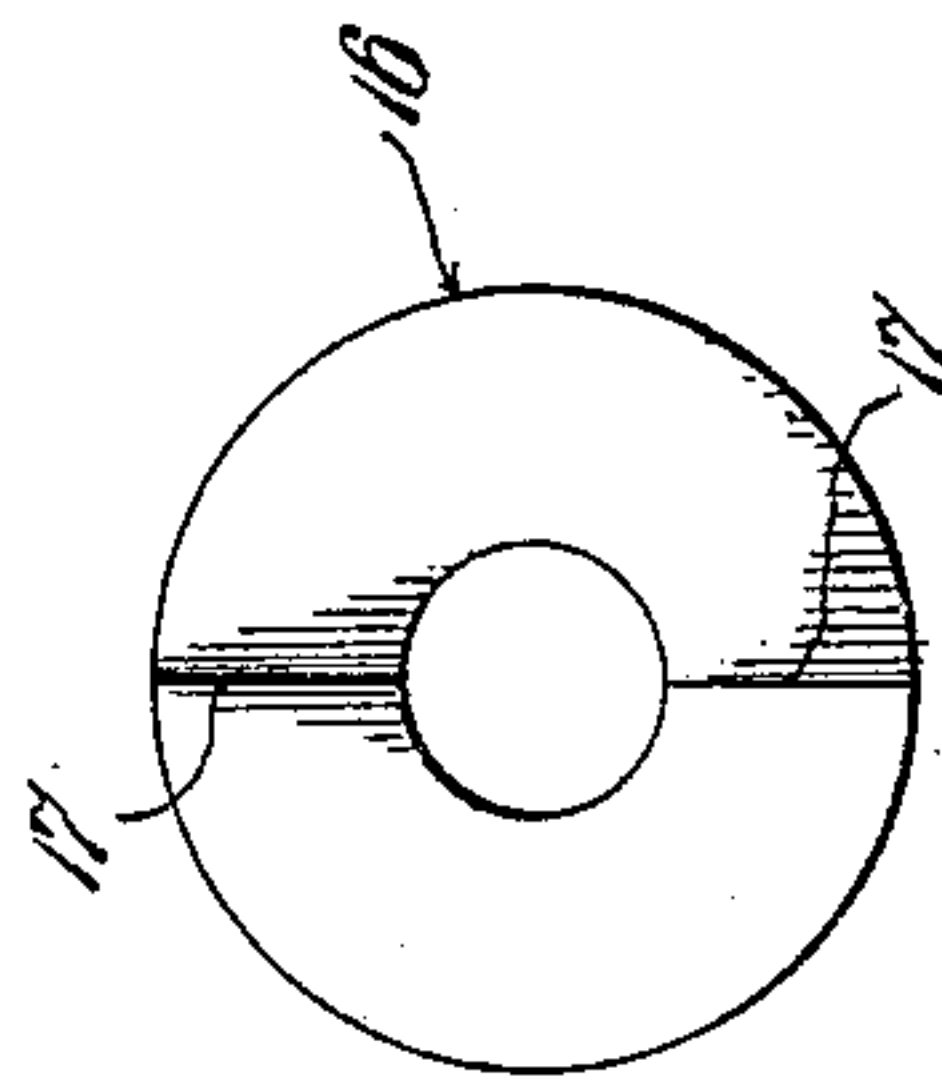


Fig. 6.

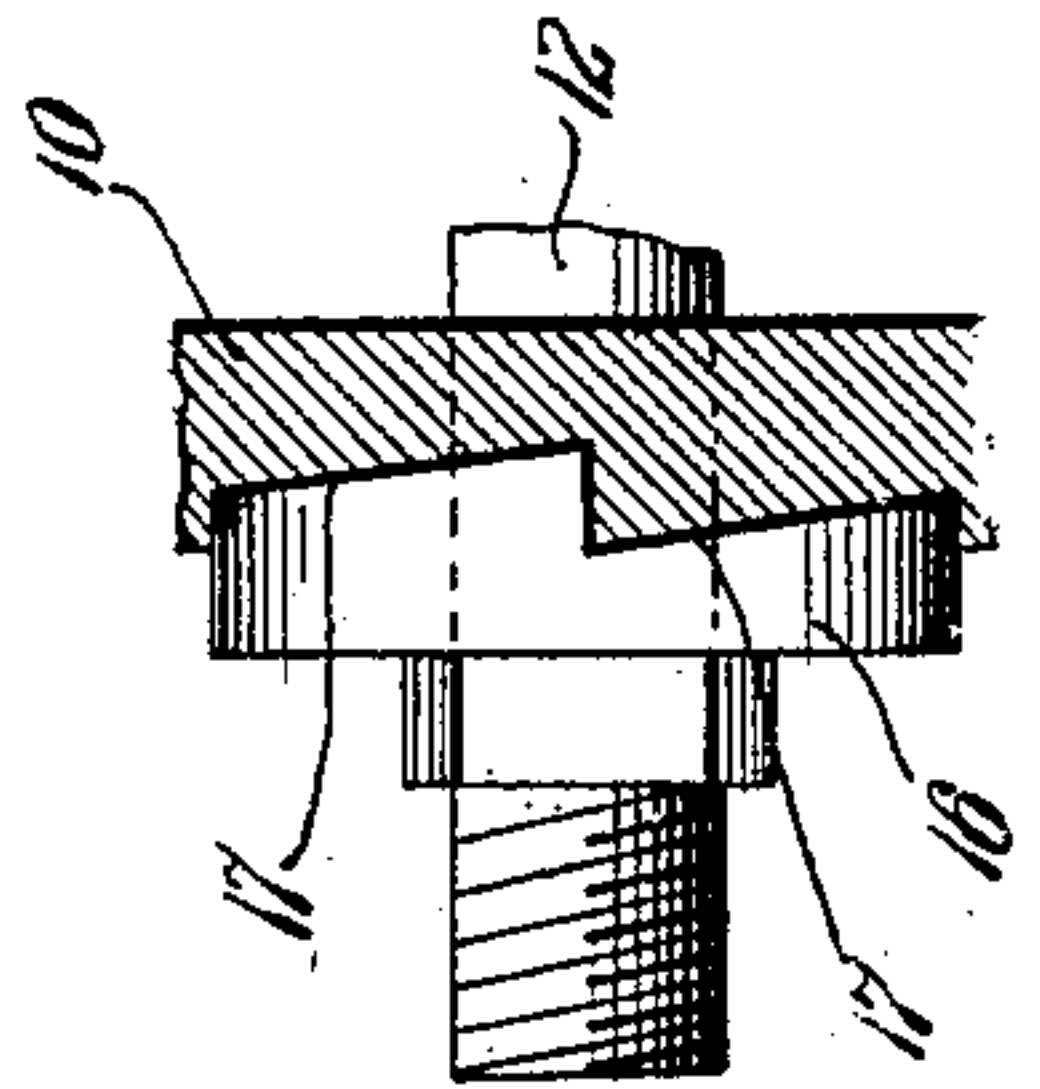


Fig. 7.

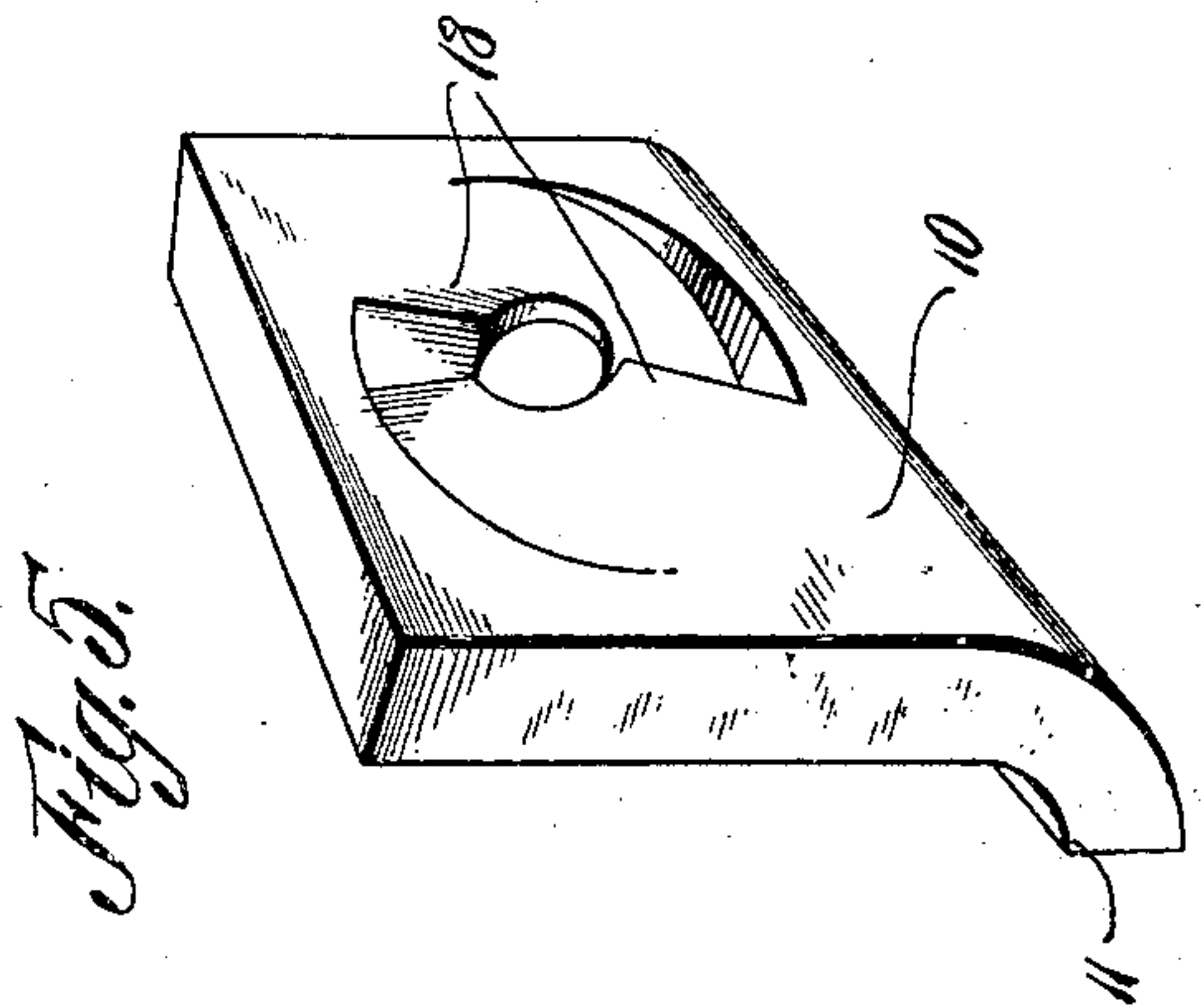


Fig. 5.

Witnesses
J. H. Crawford.
D. W. Gould.

R. M. Lindsay, Inventor.

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2 SHEETS—SHEET 2.

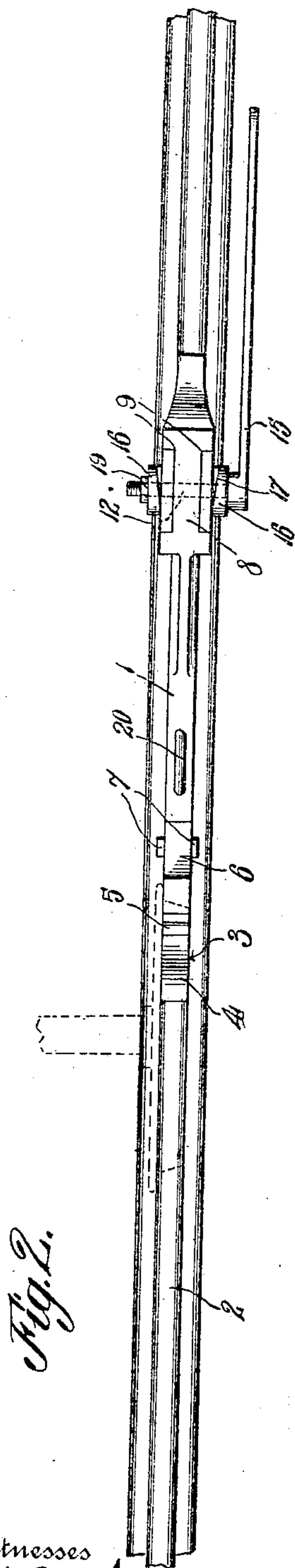


Fig. 2.

Witnesses
J. H. Crawford
D. W. Gould.

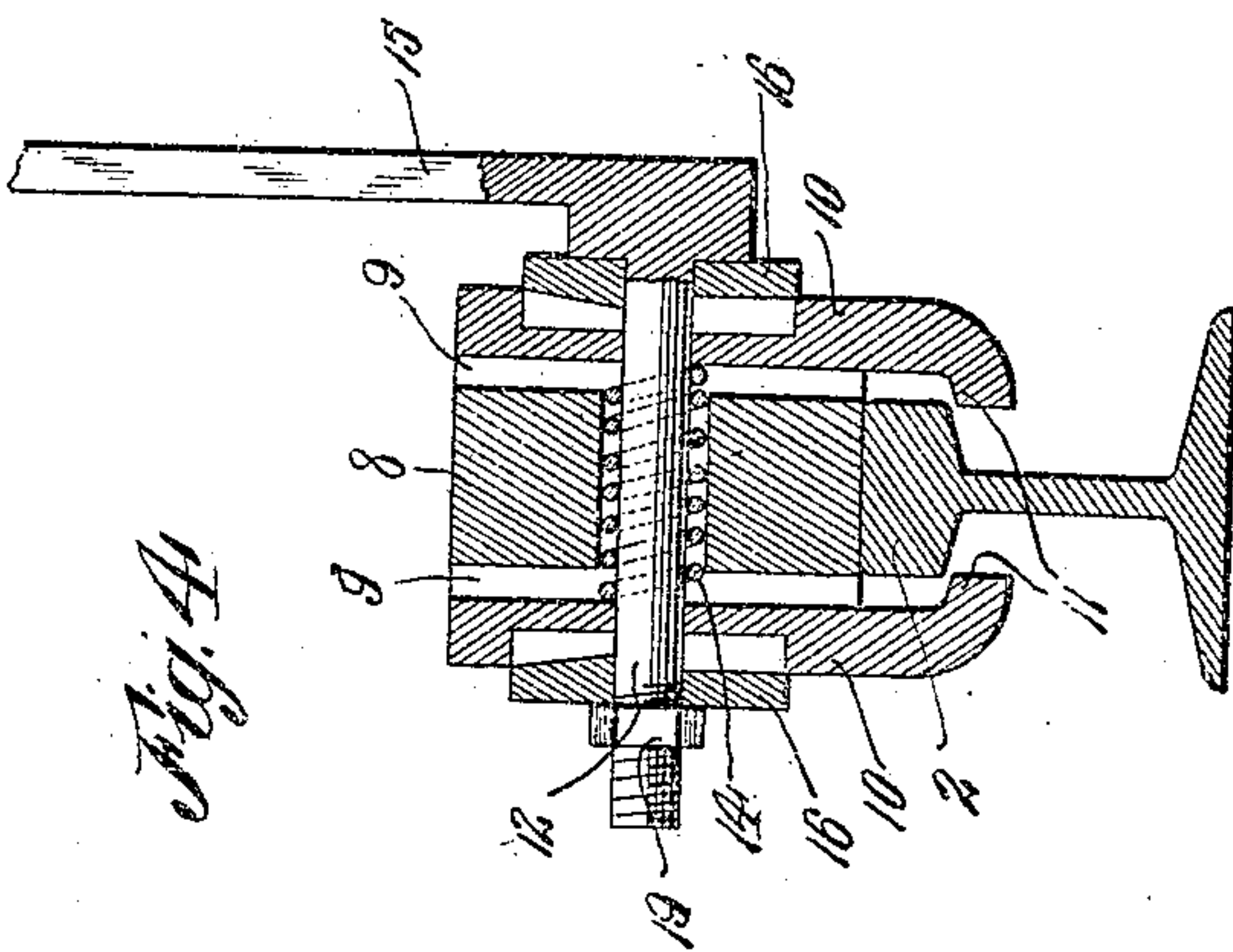


Fig. 4.

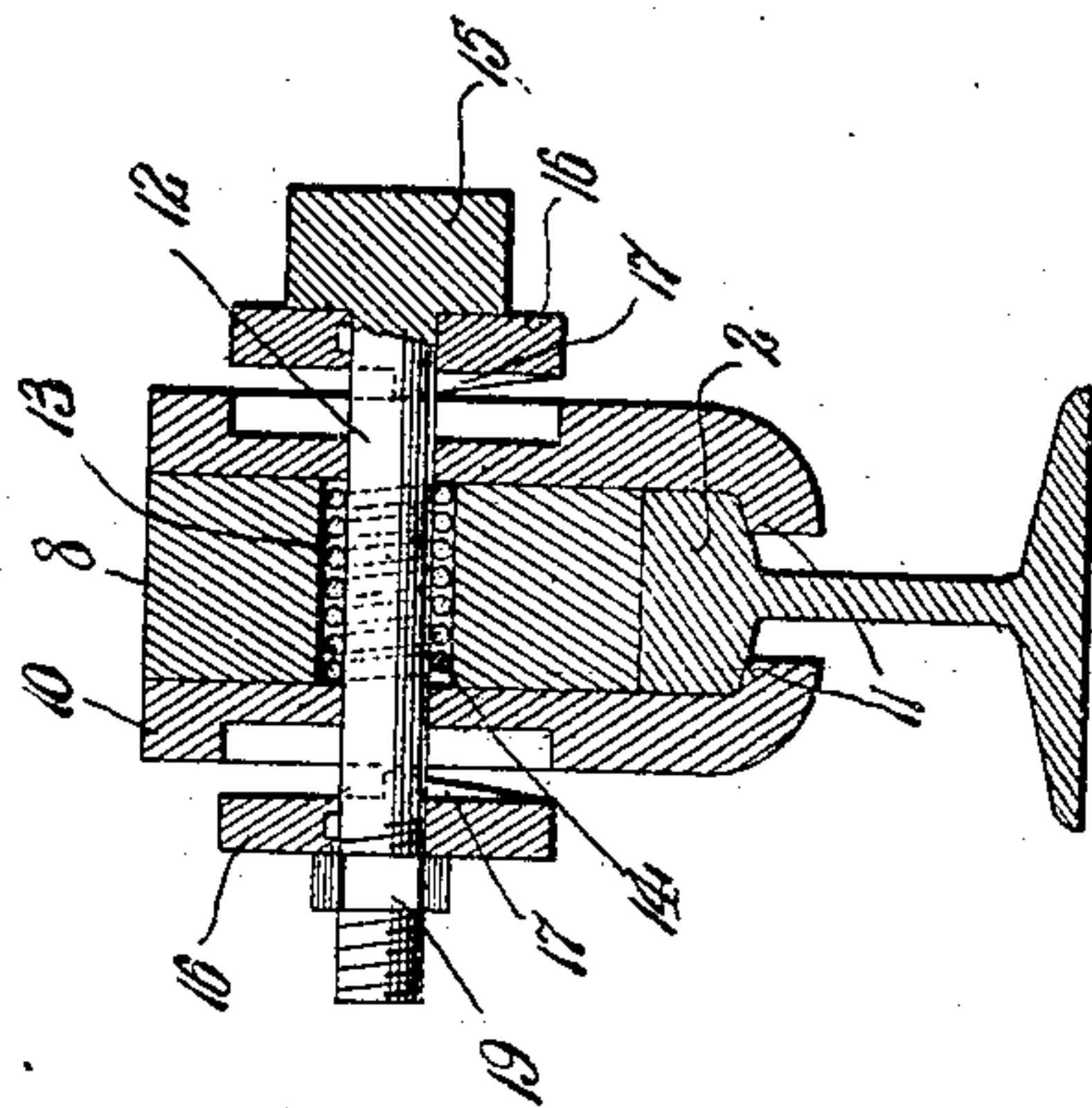


Fig. 3.

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UNITED STATES PATENT OFFICE.

ROBERT M. LINDSAY, OF OLIVER SPRINGS, TENNESSEE.

CAR RETARDER OR CHOCK.

962,967.

Specification of Letters Patent. Patented June 28, 1910.

Application filed November 6, 1909. Serial No. 526,625.

To all whom it may concern:

Be it known that I, ROBERT M. LINDSAY, a citizen of the United States, residing at Oliver Springs, in the county of Roane and State of Tennessee, have invented new and useful Improvements in Car Retarders or Chocks, of which the following is a specification.

The invention relates to an improvement in car retarders or chocks primarily designed for holding cars at any desired point on a grade for loading or unloading, the construction of the chock permitting a single operator to readily change the position of the car by adjusting the chock to any position on the rail, the car of course following by gravity.

The main object of the present invention is the provision of a car chock designed to overlie the rail and formed at one end with a wheel shoe and at the opposite end with a rail clamping means arranged for manual control by the operator.

The invention in its preferred details of construction will be described in the following specification, reference being had particularly to the accompanying drawings, in which:—

Figure 1 is a view in elevation illustrating the application and use of the improved car chock. Fig. 2 is a plan of the same. Fig. 3 is a transverse section through the clamping means, the parts being shown in set or closed position. Fig. 4 is a similar view with the parts in open position. Fig. 5 is a perspective view of one of the clamping plates. Fig. 6 is an end elevation of one of the cam disks. Fig. 7 is a view in elevation, partly in section, illustrating the cam disk and clamp plate in the relative position occupied when the plate is in inoperative relation to the rail.

Referring particularly to the accompanying drawings, my improved chock comprises a bed plate 1 having a width corresponding to the similar dimension of the tread portion 2 of the rail. At one end the plate is provided with what may be termed a shoe 3 extended upwardly from the plate and having the lower portion of its outer surface curved to correspond to the curvature of the car wheel, as at 4. The upper portion of the wheel engaging surface of the shoe is formed to provide a curved surface 5 having a less radius than that of the surface 4. The upper end of the shoe is secured in fixed

relation to the plate by a brace 6, and the base plate 1 is preferably provided with lips 7 on the opposing edges at the shoe end to slidably engage the opposing surfaces of the rail tread. The end of the base plate 1 remote from the shoe is enlarged to provide an outstanding block 8, the opposing side edges of which are cut away to form guide channels 9. In the respective channels are arranged guide plates 10 having a width corresponding to the width of the channel and a length exceeding the height of the block, the lower ends of the clamp plates extending below the tread portion 2 of the rail and being inturned at their lower edges, as at 11, to engage beneath said tread portion when clamped upon the rail. The clamp plates are supported upon a rod or shaft 12 passing loosely through openings in the plates and through an opening 13 in the block 8. The opening 13 is formed with a diameter exceeding that of the shaft to provide for the reception of a coil spring 14 the ends of which are designed to bear against the inner surface of the respective plates. The spring is so tensioned that upon the release of the operating means it will act to force the plates apart and thereby disengage the lower inturned ends of the plates from the rail. The shaft 12 is integral with or suitably secured to a hand lever 15, and arranged upon this lever adjacent the outer face of each clamp plate is a cam disk 16. Each of the disks 16 is formed with an inclined cam surface 17, and the face of the plate underlying the disk is also formed with complementary cam faces 18. The respective cam faces are so disposed that in the movement of the lever in one direction the disks, which are fixed to the shaft 12, will be rotated with the effect to force the clamp plates toward the block and thereby cause their lower projected ends to engage and clamp the tread portion of the rail. The shaft 12 is terminally threaded to receive a nut 19 whereby the initial relation of the cam disks to the clamp plates may be adjusted as may be necessary in positions when it is impossible to give the lever a full normal throw to operate the parts.

In use, the chock is clamped upon the rail with the shoe engaged against the rim of the car wheel, thus holding the car against movement. When it is desired to shift the car, the lever 15 is operated to release the clamp plates to the influence of the spring

14, freeing the chock from engagement with the rail and permitting it to be moved longitudinally of the rail to any position, the handle 20 projecting from the base plate 5 facilitating such movement. The car will follow the chock and will be held in the new position by clamping the chock to the rail in the manner previously described.

In the event the wheel should tend to climb the surface 4 it will be obvious that an over-running will be prevented by the surface 5, and this feature is particularly important in this class of devices. The structure as a whole may be readily handled by one operator, and it is, of course, to be made in any material or size desired.

Having thus described the invention, what I claim as new is:—

1. A car chock including a base plate, a shoe carried at one end thereof, and clamping means carried at the opposing end, said means including clamping plates to embrace and underlie the tread portion of the rail, a lever, means operated in the movement of the lever to force the plates toward each other, and means carried by the base plate to force the plates from each other.

2. A car chock including a base plate, a wheel engaging shoe carried thereby, a block projected from the base plate, clamp plates mounted on the block, a spring for forcing said plates in opposite directions, a lever

and cam disks operated by the lever to simultaneously move the plates in opposition to the spring.

3. A car chock including a base plate, a wheel engaging shoe carried thereby, a block projected from the base plate, clamp plates mounted on the block, a spring for forcing said plates in opposite directions, a lever and cam disks operated by the lever to simultaneously move the plates in opposition to the spring, said plates being projected below the block and curved to underlie the tread portion of the rail.

4. A car chock including a base plate, a wheel engaging shoe carried thereby, a block projected from the base plate, clamp plates mounted on the block, a spring for forcing said plates in opposite directions, a lever and cam disks operated by the lever, each of said clamp plates being formed with surfaces to cooperate with the cam disks, whereby in the movement of the lever in one direction said disks operate to force the clamp plates in a direction opposing the influence of the spring.

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

ROBERT M. LINDSAY.

Witnesses:

SAMUEL G. SHOEMATE,
OBED. L. SLATERY.