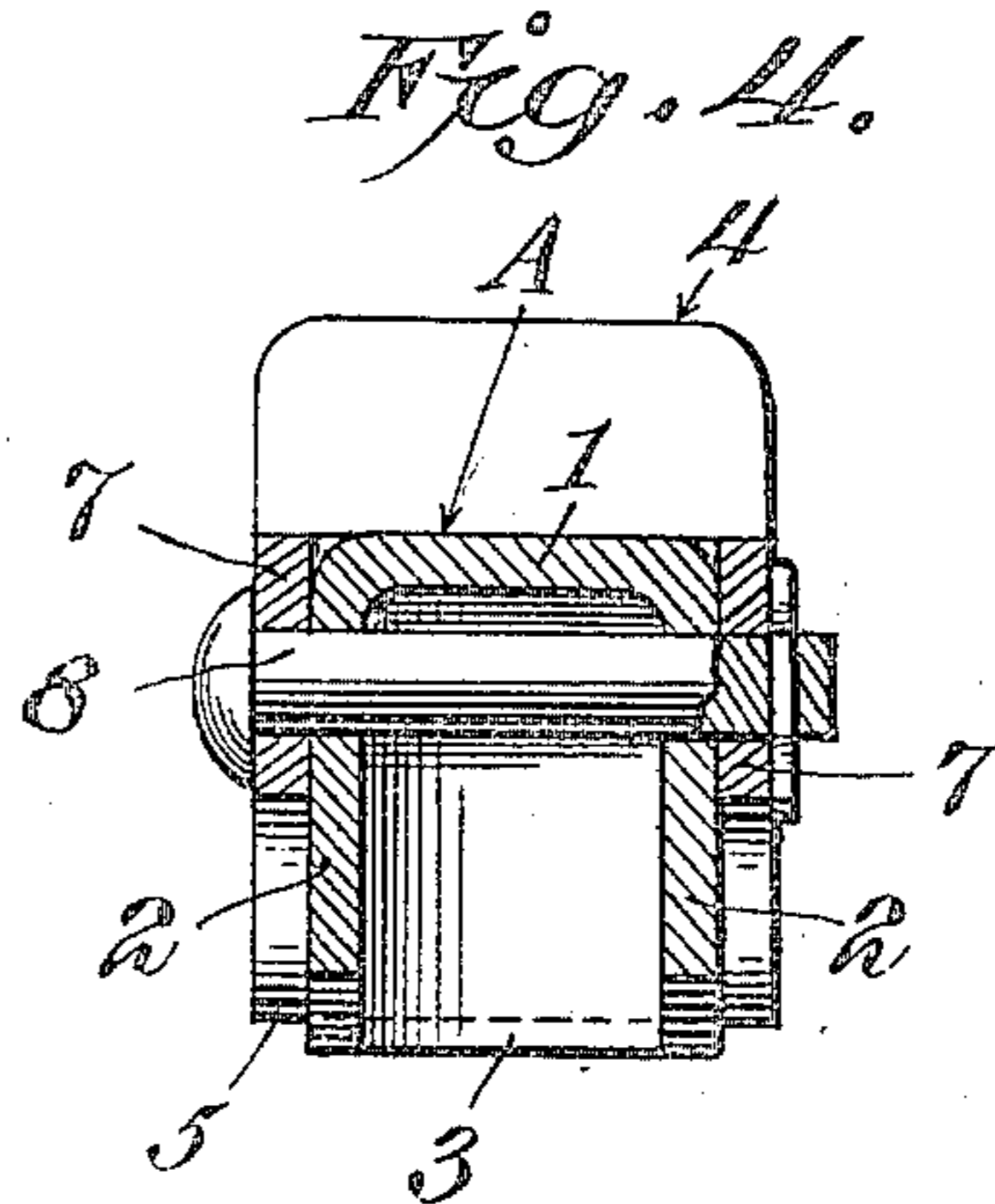
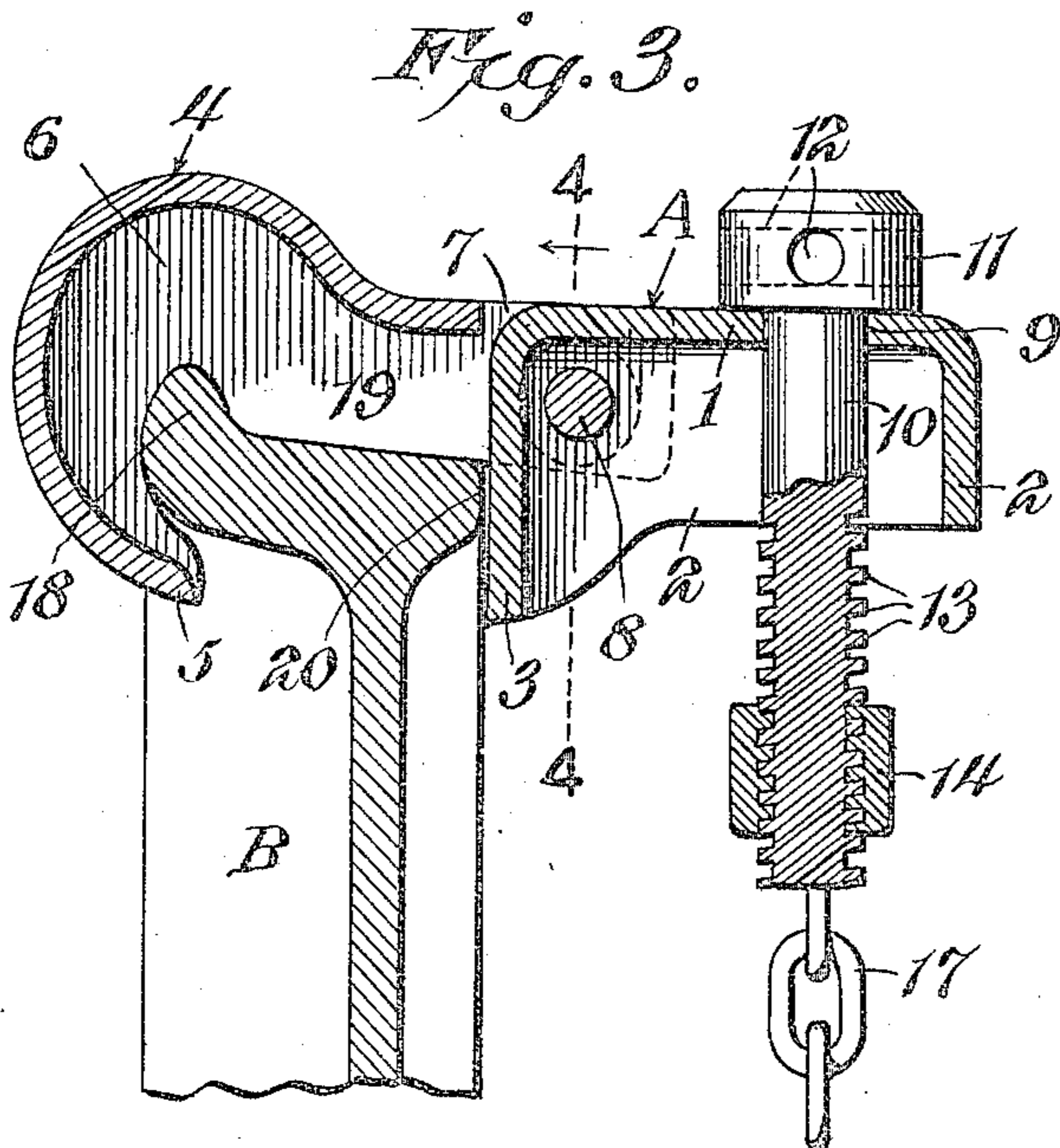
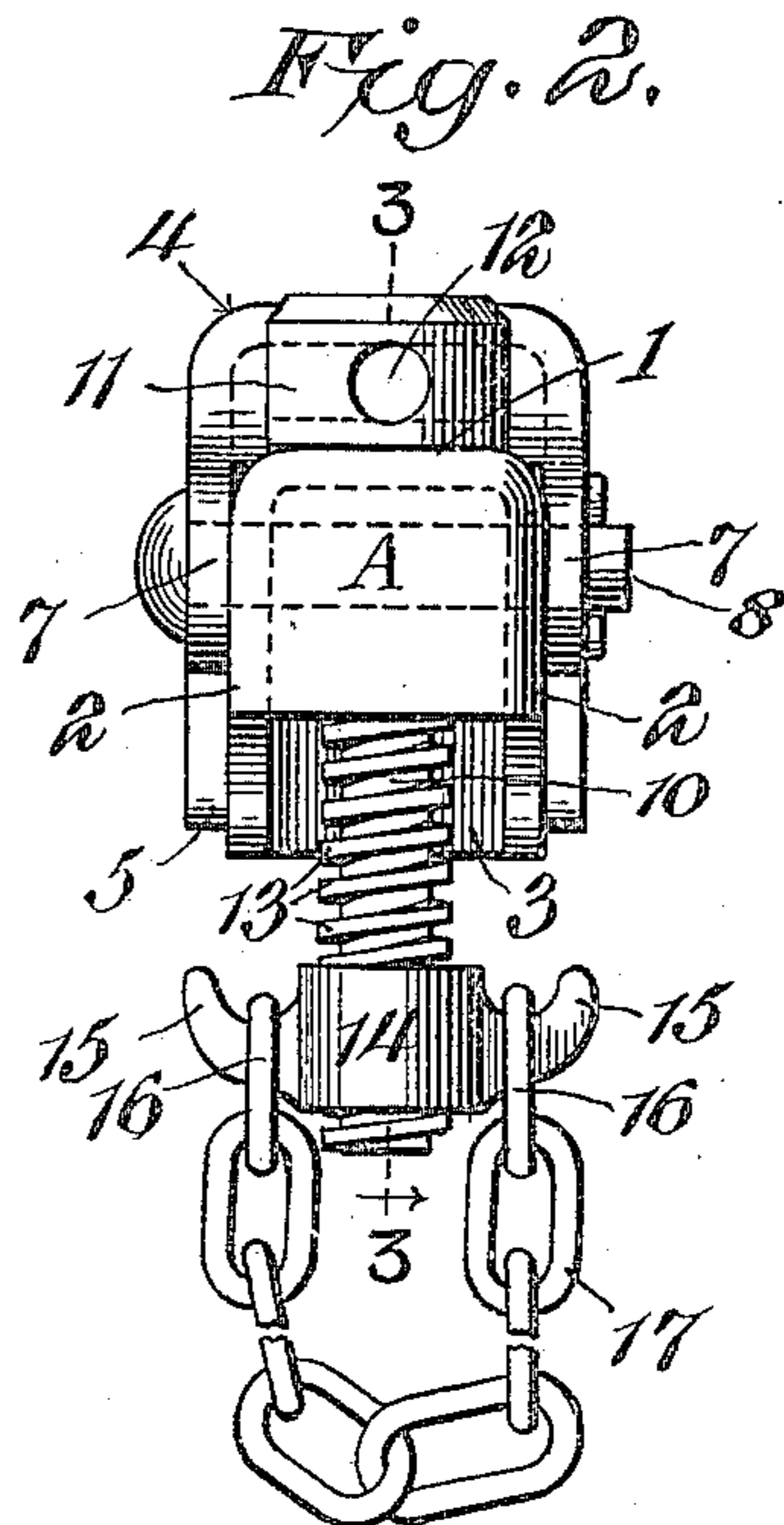
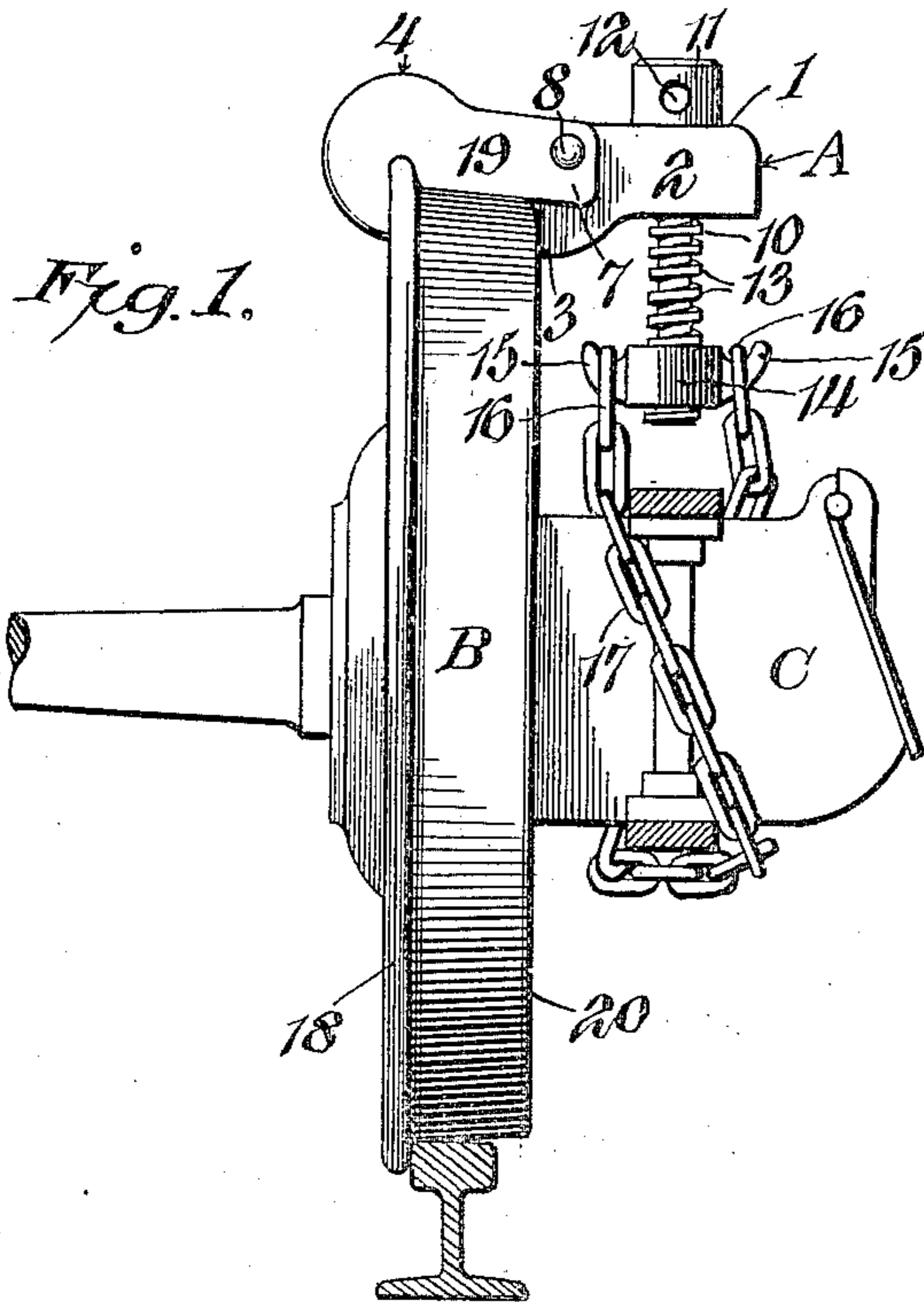


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RAILWAY CAR JACK.  
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952,518.

Patented Mar. 22, 1910.



Witnesses  
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# UNITED STATES PATENT OFFICE.

PERRY J. GARRISON, OF MOUNT VERNON, ILLINOIS.

## RAILWAY-CAR JACK.

952,518.

Specification of Letters Patent. Patented Mar. 22, 1910.

Application filed February 25, 1909. Serial No. 479,964.

*To all whom it may concern:*

Be it known that I, PERRY J. GARRISON, a citizen of the United States, residing at Mount Vernon, in the county of Jefferson and State of Illinois, have invented a new and useful Railway-Car Jack, of which the following is a specification.

This invention relates to a jack of that type adapted to be adjusted to a car wheel and its bearing box for lifting the latter when it is desired to remove the bearing brasses or to cool the bearing, and the objects of the invention are to provide a jack of this character of comparatively simple and inexpensive construction, and so designed as to be easily and quickly adjusted in place or removed, conveniently manipulated, efficient in operation, and possessing great strength compared to its weight.

With these objects in view and others, as will appear as the description proceeds, the invention comprises the various novel features of construction and arrangement of parts which will be more fully described hereinafter and set forth with particularity in the claims appended hereto.

In the accompanying drawing, which illustrates one embodiment of the invention, Figure 1 is a side view of the device shown applied. Fig. 2 is a front view thereof, drawn on an enlarged scale. Fig. 3 is a vertical section on line 3—3, Fig. 2. Fig. 4 is a detail sectional view on line 4—4, Fig. 3.

Similar reference characters are employed to designate corresponding parts throughout the views.

Referring to the drawing, A designates the body of the jack which is preferably constructed as a casting or forging, the same consisting of a top plate 1 and a depending marginal flange 2, whereby strength and rigidity is provided with a minimum mass of metal, the flange at one end of the body being of greater dimension than at other points to form a gripping face or jaw 3. Secured to the body is a jaw 4 which is preferably in the form of a hook, the bill 5 of which is adapted to engage around the rail-engaging flange of the wheel to which the device is adjusted, the said jaw member or hook being chambered out at 6 so as to lighten the weight thereof. The jaw member or hook is provided with parallel lugs 7 spaced such a distance apart as to embrace the jaw end of the body A. Passing horizontally through the body A and through

the lugs 7 is a bolt 8 which constitutes a pivot for permitting the jaws to swing open or closed in applying and removing the jack.

The top plate 1 of the member A has an opening 9 in which is rotatably mounted a lifting screw 10 which is enlarged into a head 11 that has a flat under surface that bears on the top plate 1 of the member A, the head having sockets 12 for the reception of a bar or lever whereby the screw can be conveniently manipulated. The lower end of the screw is provided with threads 13 of substantial dimensions, and having threaded engagement with the screw is a yoke 14. This yoke has oppositely-disposed, upwardly-curved hooks 15 that are adapted to receive the end links or rings 16 of the box-engaging chain 17. In applying the jack to a car wheel and bearing box, the two jaw sections are swung open so that the rim of the car wheel B can be engaged, the sections being applied in such position that the hook-shaped jaw section will embrace the rail-engaging flange 18 of the car wheel, while the shank portion 19 of the hook-shaped jaw section will bear flat against the tread surface of the wheel. After the hook is thus applied, the jaw section or body A is permitted to drop so that the jaw 3 thereof will bear flat against the side face 20 of the wheel rim, which affords a firm abutment to withstand the strain. The section A will assume an outstanding position as shown in Figs. 1 and 3. In applying the jack in this manner, the chain 17 is first removed from the jack and the yoke moved down adjacent the end of the screw, care being taken in applying the jack that the screw will be vertically above the bearing box C for the wheel. The chain 17 is next embraced around the bearing box, as shown in Fig. 1, and the terminal rings 16 of the chain engaged with their respective hooks 15 of the yoke. After the parts are thus adjusted, the screw is turned by a bar or lever so as to work the yoke upwardly until finally the weight of the car is removed from the axle of the wheel to thereby permit the bearing brasses to be readily taken out and new ones substituted when necessary. To remove the jack, the yoke is screwed downwardly until the chain can be removed, whereupon the jaw sections can be opened for releasing the jack from the wheel. The jack is of relatively small dimensions and of light weight and yet of durable and substantial design.

From the foregoing description, taken in connection with the accompanying drawing, the advantages of the construction and of the method of operation will be readily apparent to those skilled in the art to which the invention appertains, and while I have described the principle of operation of the invention, together with the apparatus which I now consider to be the best embodiment thereof, I desire to have it understood that the apparatus shown is merely illustrative, and that such changes may be made when desired as are within the scope of the claims appended hereto.

15 Having thus described the invention, what I claim as new, and desire to secure by Letters Patent, is:—

1. A jack of the class described comprising wheel-gripping jaw sections pivotally connected, a lifting screw journaled on one of the sections, a member threaded on the screw and movable back and forth thereon, and a flexible bearing box engaging element connected with the said member to lift the box by the screw.

2. A jack of the class described comprising a wheel-gripping structure composed of two horizontally disposed sections having spaced wheel-engaging faces relatively movable for attachment with or detachment from a wheel and a pivot connecting the sections together, a lifting screw journaled on one of the sections of the structure, a yoke threaded on the screw and movable back and forth thereon, and a flexible box-engaging element detachably connected with the yoke and arranged to prevent the yoke from turning with the screw.

3. A lifting jack of the class described comprising jaw sections designed to be adjusted to the rim of a car wheel and one section having an outstanding portion provided with a vertical opening, a screw rotatably mounted in the opening and having a head rotatably bearing on the outer surface of the outstanding portion to prevent longitudinal movement of the screw during the turning thereof, a pivot connecting the two jaw sections together and disposed with its axis at right angles to the screw and arranged to cause the screw-carrying section to tighten its grip on the wheel as the screw is manipulated, a yoke threaded on the screw to move back and forth thereon, and a journal box embracing element detachably con-

nected with the yoke and serving to prevent the latter from turning with the screw.

4. A jack of the class described comprising a body section formed with a plate-like jaw, a hook-shaped jaw section arranged with its bill spaced from the jaw of the body whereby the sections can be gripped to the rim of the wheel, a pivot connecting the sections together and disposed parallel with the vertical plane of the wheel, a bearing box lifting device mounted on the body section and so disposed as to cause the jaws to tighten their grip on the wheel by the operation of the lifting device.

5. A jack of the class described comprising a body section consisting of a plate having a marginal depending reinforcing flange, one portion of the flange forming a jaw, a jaw section having an extremity spaced from the jaw and cooperating with the latter to engage the rim of a wheel, apertured lugs on the jaw arranged in spaced relation to embrace the opposite sides of the body section, a pivot on the body section passing through the apertured lugs, the plate of the body portion being provided with an opening, a rotary lifting element extending through the opening of the plate and having a shoulder bearing on the top surface of the plate, and means detachably connected with the yoke for connecting the jack with the bearing box of the wheel.

6. A jack of the class described comprising a body section formed with a plate-like jaw, a hook-shaped jaw section arranged with its bill spaced from the jaw of the body whereby the sections can be gripped to the rim of a wheel with the jaw on the outer side and the bill on the inner side of the wheel, a pivot connecting the sections together and disposed parallel with the vertical plane of the wheel outside the engaging points of the bill and jaw, a bearing box lifting device mounted on the body section and so disposed as to cause the jaws to tighten their grip on the wheel by the operation of the lifting device.

In testimony, that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

PERRY J. GARRISON.

Witnesses:

W. H. GILMORE,  
E. I. BROWN.