

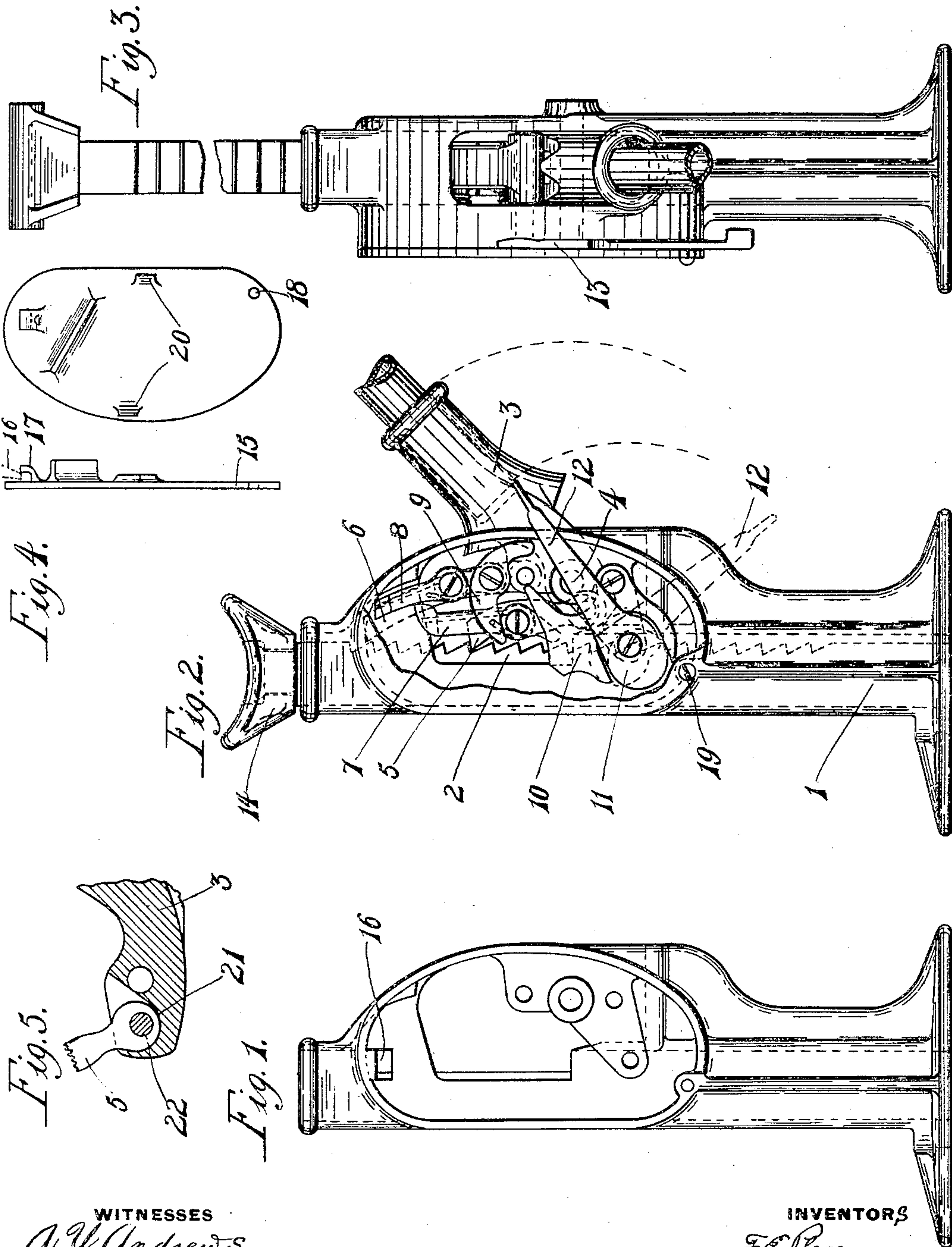
F. E. PLACE & M. L. JENKINS.

LIFTING JACK.

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979,092.

Patented Dec. 20, 1910.



WITNESSES
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To all whom it may concern:

Be it known that we, FREDERICK E. PLACE and MERRILL L. JENKINS, citizens of the United States, residing, respectively, at Chicago and Harvey, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Lifting-Jacks, of which the following is a specification.

The invention relates to lifting jacks of the type shown in the patent to Barrett, Number 399,470, and has for its objects; the provision of certain improvements in the details of the structure shown in such patent; viz., the provision of improved reversing means operable from the front of the jack instead of the side; the provision of simplified and improved fastening means for the cover plate; and the provision of a cap especially adapted for use with a vehicle axle.

One embodiment of the invention is illustrated in the accompanying drawings, in which:—

Figure 1 is a side elevation of the jack frame with the cover plate and operating parts removed, Fig. 2 is a side elevation of the jack with the cover plate partially broken away to disclose the operating parts, Fig. 3 is a front elevation of the jack, Fig. 4 shows a detail side and edge elevation of the cover plate, and Fig. 5 shows in detail the mounting of the lifting pawl.

Referring to the drawing, 1 is the jack casing, 2 is the lifting rack bar, 3 is the operating handle which is pivoted at 4, 5 is the lifting pawl carried by the handle 3, 6 is the holding pawl pivoted to the jack casing, 7 and 8 are dogs carried respectively by the lifting and holding pawls, and having spring connection thereto in the usual manner, 9 is an operating dog adapted to cooperate with the dogs 7 and 8, and 10 is a shifting dog operable by the eccentric 11. The parts just described are substantially the same in shape and functions as the corresponding parts in the Barrett Patent 399,470 heretofore referred to, and the operation is so well known in the art that a detail description thereof is unnecessary, it being sufficient to point out that when the shifting handle 12 is in the position shown in the full lines, the actuation of the handle 3 raises the rack step-by-step and when the shifting handle is moved to the dotted

position shown in Fig. 2, and the nose of the shifting dog 10 is pressed against the lower end of the dog 9, the parts are reversed and the oscillation of the handle 3 lowers the rack step-by-step.

In the jack as formerly constructed, the eccentric 11 was operated by a thumb-screw projecting through a hole in the cover plate. One of our improvements consists in modifying this construction by providing the eccentric with the handle 12 passing through the slot 13 in the frame (Fig. 3) with its end adjacent the operating handle 3. This arrangement reduces the width of the jack and permits it to be placed very close to a body at the side of the jack without interfering with its reversal. It also renders the operation more convenient, as the handle at the front may be more readily grasped than a shifting means at the side of the jack as in the old construction.

Another feature of construction rendering the jack more convenient of operation consists in the provision of the swiveled socket 14 re-curved upon its upper face in place of the cap rigid with the lifting bar as heretofore employed. By the use of this arrangement the socket 14 may be made to fit the axis of the vehicle with which it is used regardless of the position of the jack, which is a great convenience under many conditions of service.

Another important feature of construction resides in the means whereby the cover plate may be rigidly secured to the jack with only a single screw. In order to accomplish this object the casing adjacent the upper end of the opening over which the cover plate fits is provided with the lug 16, and the inner face of the cover plate is provided with a corresponding lug 17 adapted to hook over the lug 16. As indicated in Fig. 4 the cooperating faces of the lugs 16 and 17 are made inclined so that the lugs may be made to interlock easily and a tight fit is insured. 18 is the hole for the securing screw 19. In order to prevent lateral movement of the cover plate with respect to the casing, the side lugs 20 are provided, which side lugs fit just inside the opening in the casing.

Another feature of construction consists in the means for mounting the lifting pawl on the end of the handle, as shown in Fig. 5.

The end 21 of the handle is recessed to receive the end 21 of the pawl and such end bears directly on the bottom of the recess, thus relieving the holding rivet 22 of shearing strain.

Having thus described our invention and illustrated its use, what we claim as new and desire to secure by Letters Patent is the following:—

- 10 1. The combination with a lifting jack comprising a rack, an operating handle, lifting and holding pawls, and reversing means including a recessed block 10 whereby the pawls may be moved from lifting to lowering position, of a shifting means for operating the reversing means comprising an eccentric 11 fitting in the recess in the block 10 and provided with a handle projecting from the front of the jack casing.
- 20 2. In a jack, the combination with the jack casing open at one side and provided with an inwardly projecting lug at one edge of the opening, of a cover plate adapted to cover the open side and provided at one end with an inwardly projecting lug adapted to fit under the other lug and at the opposite edge with a holding screw.
- 25 3. In a jack, the combination with the jack casing open at one side and provided

with an inwardly projecting lug at one edge 30 of the opening, of a cover plate adapted to cover the open side and provided at one end with an inwardly projecting lug adapted to fit under the other lug and at the opposite edge with a holding screw, and 35 other means projecting inwardly from the cover plate for engaging the sides of the opening and preventing lateral movement of the cover plate.

4. In a jack, the combination with the 40 jack casing open at one side and provided with an inwardly projecting lug at one edge of the opening, having its inner face inclined, of a cover plate adapted to cover the open side and provided at one end with an 45 inwardly projecting lug having an inclined face adapted to coact with the inclined face on the other lug, and positive securing means for the opposite end of the plate.

In testimony whereof we have hereunto 50 signed our names in the presence of the two subscribed witnesses.

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MERRILL L. JENKINS.

Witnesses:

W. H. DAVIS,
L. C. CURL.