

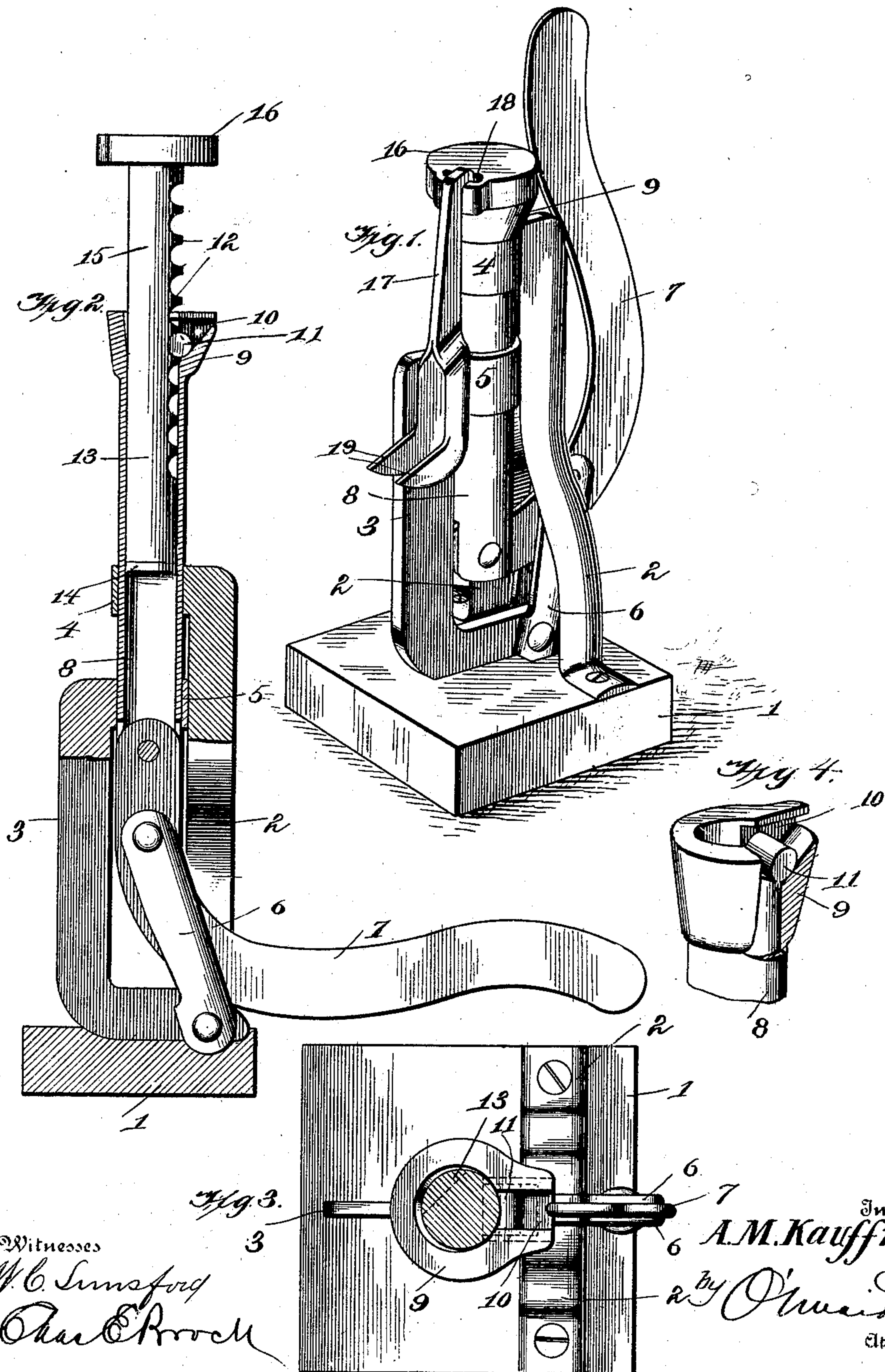
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Patented Jan. 15, 1901.

A. M. KAUFFMAN.
WAGON JACK.

(Application filed Jan. 27, 1900.)

(No Model.)



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UNITED STATES PATENT OFFICE.

ARTHUR M. KAUFFMAN, OF FOUR CORNERS, IOWA.

WAGON-JACK.

SPECIFICATION forming part of Letters Patent No. 666,014, dated January 15, 1901.

Application filed January 27, 1900. Serial No. 3,027. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR M. KAUFFMAN, a citizen of the United States, residing at Four Corners, in the county of Jefferson and State of Iowa, have invented a new and useful Wagon-Jack, of which the following is a specification.

My invention relates to wagon-jacks, and has for its object to produce a device which will be simple and will have a wide range of adaptability and will secure a central support or thrust-bearing for the lifting mechanism.

With these ends in view my invention consists in the improved construction and novel combination of parts of the same, as will be hereinafter more fully set forth.

In the accompanying drawings, in which the same reference-numerals indicate corresponding parts in each of the views in which they occur, Figure 1 is a perspective view of my improved jack with the stem or lifting member in its retracted or depressed position. Fig. 2 is a vertical sectional view of the same, the parts being shown in their operative or elevated positions. Fig. 3 is a top plan view, and Fig. 4 is a perspective detail view.

Referring more particularly to the drawings, 1 indicates the base of my improved lifting-jack, which may be of any suitable dimensions and formed from any suitable material, preferably of wood. Rigidly secured thereto are the standards or supports 2 and 3, the upper end of each of which is provided with a band 4 and 5, one above the other and in axial alinement. The standard 2 is preferably formed of an A shape, and the standard 3, which is shorter than the other standard, is substantially L-shaped and has its base embedded in the base 1 between the feet of the standard 2.

Pivotally secured to the bottom of the L-shaped standard by means of the links 6 is a curved operating-handle 7, the inner end of which is pivotally secured to the lower end of a hollow tube 8, which is vertically movable within the bands 4 and 5. The upper end of the tube 8 is provided with an enlargement 9, one side of which is recessed at 10, the bottom of which is inclined, as shown in Figs. 2 and 4. Loosely located within the re-

cess is a roller 11, which normally engages with teeth 12, formed by recessing the side of a cylindrical stem 13, which is vertically movable in the tube 8. The lower end of said stem is slightly enlarged, as shown at 14, and the upper end of the tube 8 is slightly contracted, as shown at 15, so that the stem may be forced into the tube, but will not readily leave the stem, thereby preventing the accidental removal of the stem. The upper end of the stem is provided with a head 16, which engages with the axle of the vehicle or with the object to be raised by the jack.

I construct the parts of my improved wagon-jack of such size and strength as to engage with and lift all ordinary objects to which it will be applied, the amount of variation in the height being regulated by the length of the stem 13 and the tube 8. Where it is necessary to employ the jack for lifting objects that are not of sufficient height to permit of the insertion of the device under it, I employ a supplemental lifter 17, the upper end of which is formed into a hook and engages with the head 16, which is slotted, as at 18, for the insertion of the hook. The lower end of said supplemental piece is preferably formed with two laterally-extending arms 19, which can be passed under the object and will engage therewith when the stem 13 and tube 8 are elevated by the depression of the handle 7.

In using my improved lifting-jack the stem 13 is withdrawn from the tube 8 such a distance as will just permit of the head 16 being slid under the object to be raised, when the stem is depressed and the handle elevated, as shown in Fig. 1. As the stem 13 is thus raised the roller 11 will move from tooth to tooth, always rolling down the inclined bottom of the recess to engage with the next succeeding tooth and prevent the backward or reverse movement of the stem. As soon as the instrument has been properly adjusted the depression of the handle 7 will cause the tube and stem to move upward, the weight of the load being borne by the roller 11 and the tooth in engagement therewith. In this manner the pressure of the load upon the jack will always be centrally of the instrument, or substantially so, thus avoiding any side lift or pressure. After the instrument

has been used and it is desired to depress the stem or move it into the tube 8 it is given a partial rotation until the notches of the stem have been turned around, as shown in dotted lines in Fig. 3, and the roller 11 crowded upon the inclined surface and is in contact with a smooth portion of the stem, when of course the stem can be moved into the tube as far as desired. When it is desired to again use the jack and adjust the parts, the stem is rotated axially within the tube until the roller is again in engagement with the toothed portion of the stem and the stem is locked against being moved into the tube.

Although I have shown a convenient form in which my invention may be put into practice, still I do not wish to be limited to the exact construction herein shown and described, but reserve to myself the right to make such changes and alterations as will come within the scope of my invention.

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

1. In a wagon-jack, the combination, with a vertically-movable tube, the upper end of which is provided with an inclined-bottomed recess, of a longitudinally and axially movable stem in the tube, one side of which is recessed to form teeth, and a roller in the recess in position to automatically engage with said teeth and lock the stem against inward movement, substantially as described.

2. In a wagon-jack, the combination, with a vertically-movable tube, the upper end of which is slightly contracted and provided with an inclined-bottomed recess, of a longitudinally and axially movable stem in the tube, one side of which is recessed to form teeth and the upper end is provided with a head, and the lower end is slightly enlarged to prevent its accidental removal from the tube, and a roller within the recess in position to engage with said teeth and prevent the inward movement of the stem, substantially as described.

3. In a wagon-jack, the combination, with a base, of two standards thereon, the upper end of each of which is provided with a band, one above the other and in axial alinement, one of said standards being substantially A-shaped and the other one substantially L-shaped and having its bottom secured to the base between the feet of the A-shaped standard, a vertically-movable tube within the bands and provided with a longitudinally-movable stem, a curved handle pivotally secured to the lower end of said tube, and links for pivotally securing the handle to the bottom of the L-shaped standard, substantially as described.

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