Jan. 1, 1924

1,479,091

A. J. SLONECKER

JACK

Filed Dec. 20, 1922

2 Sheets-Sheet 1

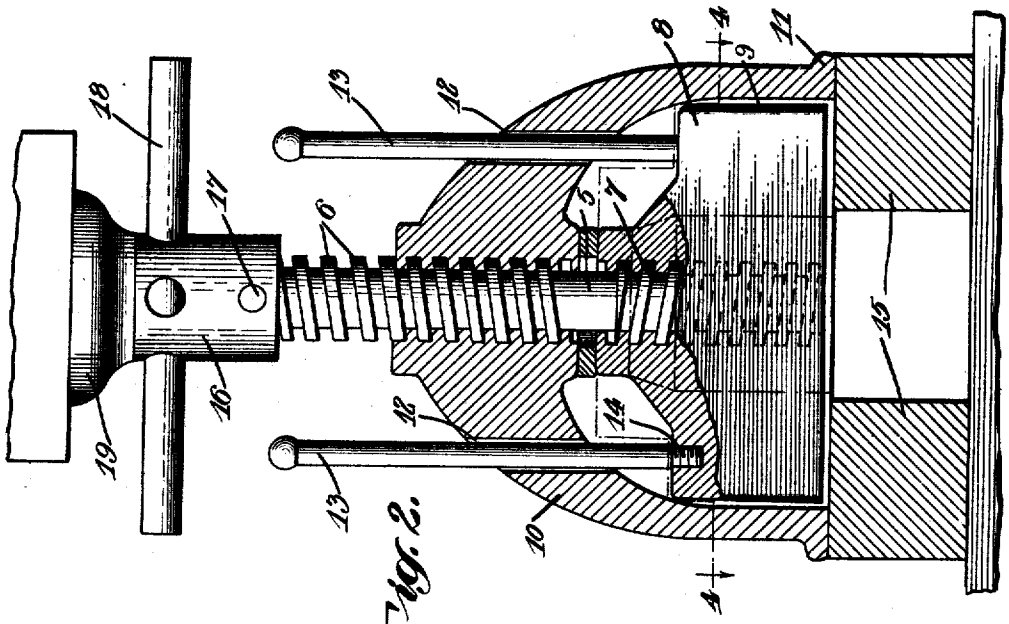


Fig. 2.

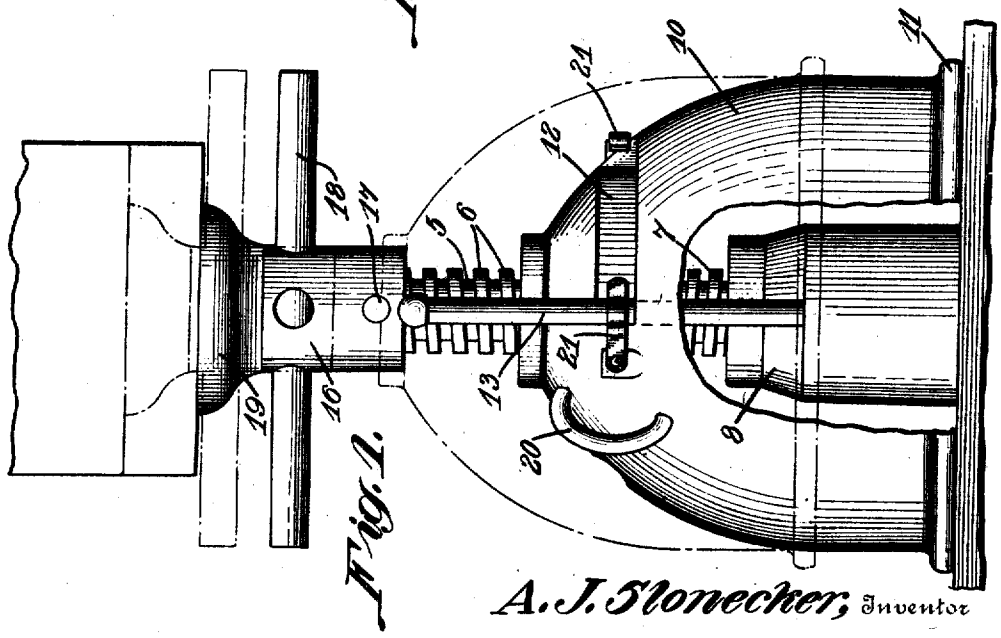


Fig. 1.

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By C. A. Snow & Co.

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2 Sheets-Sheet 2

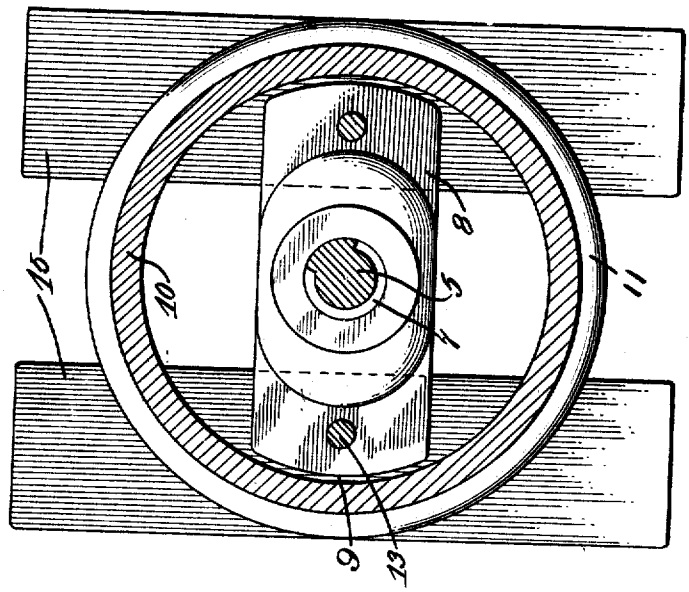


Fig. 4.

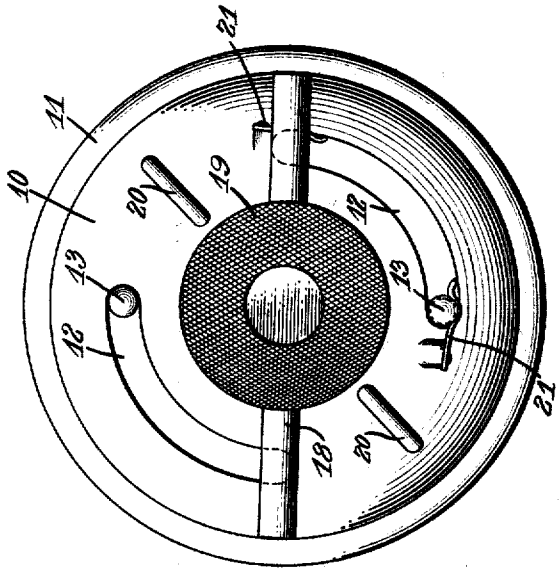


Fig. 3.

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Patented Jan. 1, 1924. 1,479,091

UNITED STATES PATENT OFFICE.

ABIRAM J. SLONECKER, OF TRENTON, MISSOURI, ASSIGNOR TO SLONECKER PRODUCTS COMPANY, OF TRENTON, MISSOURI.

JACK.

Application filed December 20, 1922. Serial No. 608,035.

To all whom it may concern:

Be it known that I, ABIRAM J. SLONECKER, a citizen of the United States, residing at Trenton, in the county of Grundy and State of Missouri, have invented a new and useful Jack, of which the following is a specification.

This invention has reference to jack constructions and aims to provide a jack of such construction as to render it unnecessary to remove the jack for the purpose of adding to the foundation or blocks during the lifting of a building or the like.

The primary object of the invention is to provide a jack wherein a direct and continuous lift of considerable height may be had, the jack being retained in constant engagement with its work until the latter has been removed to the desired position.

A further object of the invention is to provide a jack including a plurality of movable bases and a shank or screw having oppositely disposed threads whereby upon rotation of the screw in one direction, one base will be elevated, and upon rotation of the screw in the opposite direction, the opposed base will be elevated, thereby reducing the amount of blocking and number of jacks to the minimum.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed, may be made within the scope of what is claimed, without departing from the spirit of the invention.

Referring to the drawings:

Figure 1 is an elevational view of a jack constructed in accordance with the present invention, a portion of the outer movable base being broken away to disclose the inner movable base.

Figure 2 is a longitudinal sectional view through the jack disclosing the outer base as supported on blocks, the inner base having been removed to support the work.

Figure 3 is a plan view of the jack.

Figure 4 is a transverse sectional view taken on line 4—4 of Figure 2.

Referring to the drawings in detail, the reference character 5 designates the lifting screw or the shank of the jack which is formed with threads 6 starting from a point substantially intermediate the ends of the screw and terminating adjacent to the upper end thereof.

Oppositely disposed threads 7 are formed at the lower extremity of the screw 5 and operate through the inner base 8 which is preferably oblong in construction, the ends thereof being slightly curved as at 9 to conform to the curvature of the outer or hollow base 10 that operates over the threads 6 at the upper end of the screw 5.

This base 10 is substantially bell-shaped, the lower edge thereof being formed with an enlargement 11 to reinforce the lower extremity thereof and at the same time provide a broad supporting surface for the outer base. Formed in the base 10, at a point adjacent to the upper end thereof, are cut out portions 12 which are arranged on opposite sides of the bell-shaped base 10 and accommodate the rods 13 that have their lower ends threaded as at 14 to be positioned in threaded openings formed in the upper surface of the inner base 8. Thus it will be seen that when the weight of the work has been transferred from the base 8 to the base 10, as by blocking under the base 10, the base 8 may be moved from a position as indicated by Figure 1 of the drawings to a position as indicated by Figure 2 of the drawings, wherein the base 8 spans the space between the blocks as indicated at 15, and takes a position to bear the weight of the work and permit the jack or screw 6 to be operated in the opposite direction to lift the outer base 10 to a position where blocks may be positioned thereunder. Disposed at the upper end of the screw 5, is a head 16 which is secured to the screw 5 and held against movement thereon by means of the pin 17, openings being formed in the upper portion of the head 16 however, to receive the bar 18 to operate the screw 5.

Swiveled on the head 16 is a work engaging member 19 that has the upper surface thereof roughened to prevent the same from rotating when the jack is put into operation. For convenience in handling and in order that the jack may be conveniently operated, handles 20 are provided on the outer base 10,

which may be readily grasped by the operator to prevent rotation of the base 10. Co-operating with the rods 13 are latch members 21 which are secured to the base 10 at points adjacent to the ends of one of the cut out portions whereby the rods may be gripped, and held against movement when they have been moved to properly position the base 8.

In the use of the device assuming that the jack is in a position as disclosed by Figure 1 of the drawings, and the upper end of the jack is positioned under the work to be lifted, the screw is rotated in a clock-wise direction causing the outer base 10 to be elevated to a position as illustrated in dotted lines by Figure 1 of the drawings.

The usual supporting blocks employed in jacking buildings are now positioned on opposite sides of the inner base 8, and directly under the lower edge of the base 10. The screw 5 is now rotated in the reverse direction with the result that the weight of the building is transferred from the inner base to the outer base, and upon continued movement of the screw in an anti-clock-wise direction, the inner base 8 is elevated between the blocks 15 until the same lies in a plane slightly above the upper edges of the blocks 15.

Rods 13 are now operated to move the inner base 8 to a position to span the space between the blocks 15 as shown by Figure 2 of the drawings, whereupon the inner base is in a position to receive the weight of the building.

The screw 5 is now rotated in a clock-wise direction, causing the outer base 10 to again move to the limit of its upper position, thereby providing a space between the lower edge of the base 10 and supporting blocks, whereupon blocks may be positioned thereunder and the operation as before described repeated until the work has been raised to the proper height.

What is claimed is:—

1. In a lifting jack, a lifting screw having oppositely disposed threads, an inner base having threads to receive the threads of the screw, an outer hollow base adapted to house the first mentioned base and operating over the threads of the screw, means for rotating the screw, and means for oscillating the inner base.

2. In a lifting jack, a lifting screw, said screw having upper and lower oppositely disposed threads, an outer base movable over the upper threads, an inner base operating over the lower threads, said outer base having cut out portions, rods carried by the inner base and extending through the cut out portions to permit the inner base to be slightly rotated, means for operating the screw to cause the bases to move with respect to each other, and said outer base having an enlarged flange formed on its lower edge.

3. In a lifting jack, a lifting screw, oppositely disposed threads on the lifting screw, a base adapted to operate over the respective threads, means for operating the lifting screw to cause the bases to move with respect to each other, and means operating independently of the screw for moving one base.

4. In a lifting jack, a lifting screw, having oppositely disposed threads, movable bases adapted to operate over the threads, means for operating the screw in one direction to cause one base to move over the screw, said operating means adapted to operate the screw in one direction to cause the opposite base to move over the threads to accomplish the lifting result, and means independent of the screw for moving one of the bases.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature.

ABIRAM J. SLONECKER.