No. 656,464. Patented Aug. 21, 1900.

# J. C. F. LONG & J. N. BISH.

## ADJUSTABLE SCREW JACK.

(Application filed Jan. 6, 1900.)

(No Model.)

Fig. 2

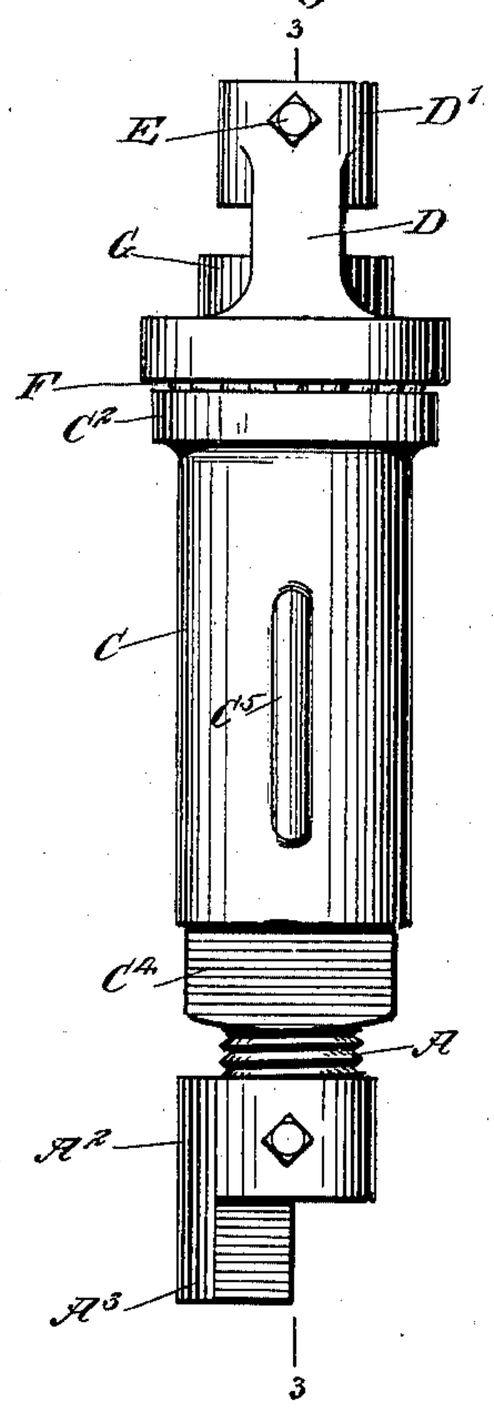



Fig. 1

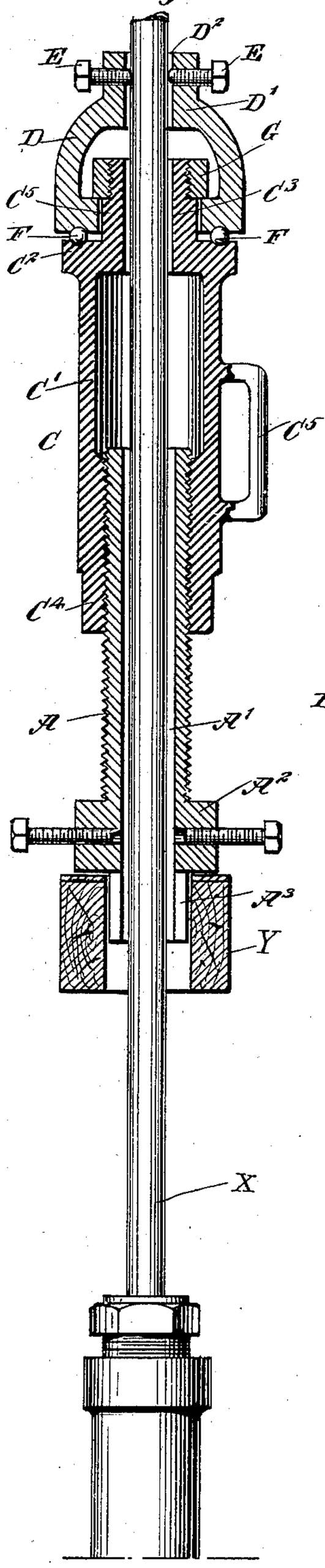
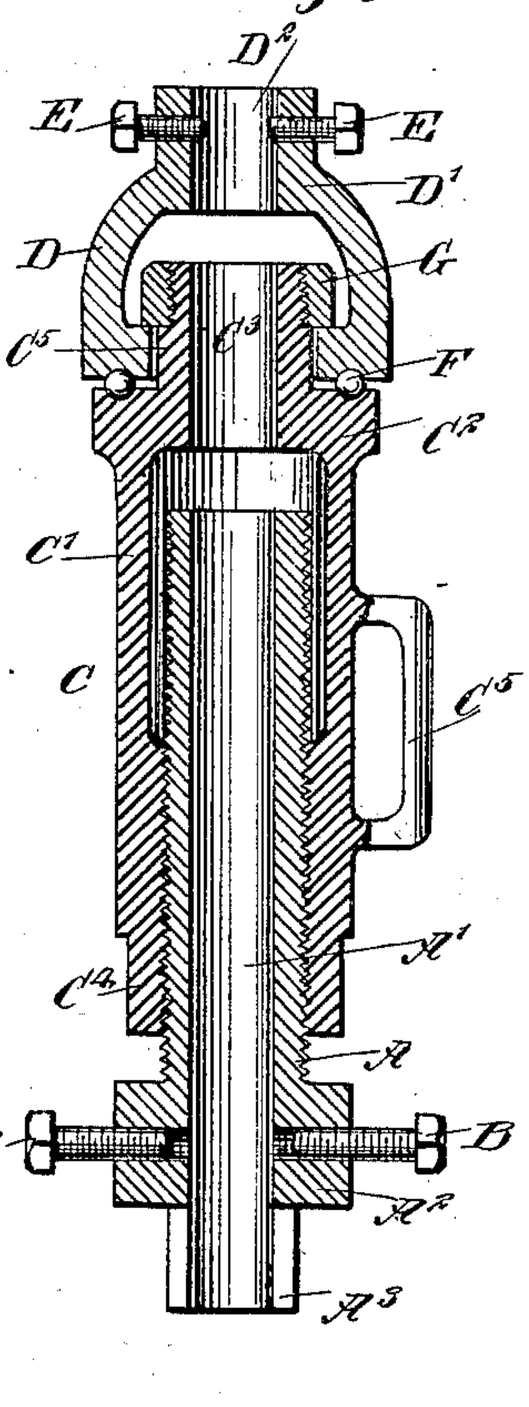



Fig. 3

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# UNITED STATES PATENT OFFICE.

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## ADJUSTABLE SCREW-JACK.

SPECIFICATION forming part of Letters Patent No. 656,464, dated August 21, 1900.

Application filed January 6, 1900. Serial No. 614. (No model.)

*To all whom it may concern:*

Be it known that we, JOHN C. F. LONG and JAMES N. BISH, citizens of the United States, residing at St. Mary's, in the county of Auglaize and State of Ohio, have invented a new and Improved Adjustable Screw-Jack, of which the following is a full, clear, and exact description.

The invention relates to oil and Artesian wells; and its object is to provide a new and improved adjustable screw-jack, which is simple and durable in construction, very effective in operation, and more especially designed for use in oil-wells, for conveniently raising or lowering sucker-rods, polish-rods, valves, and other attachments pertaining to a well outfit.

The invention consists of certain parts and details and combinations of the same, as will be fully described hereinafter and then pointed out in the claims.

A practical embodiment of our invention is represented in the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a sectional side elevation of the improvement as applied. Fig. 2 is a side elevation of the improvement, and Fig. 3 is a cross-section of the same on the line 3 3 in Fig. 2.

The improved jack is provided with a screw-rod A, formed with a central bore A′ for the passage of a sucker-rod, polish-rod, or other device X to be raised or lowered, and on the lower end of said screw-rod is formed a head $A^2$, from which extends an offset $A^3$, having parallel sides for engagement with a pumping-jack, walking-beam, or other part Y used for pumping wells, as shown in Fig. 1. The offset $A^3$ serves mainly to hold the screw-rod in position and prevents it from turning when the device is used, as hereinafter more fully described. In the head $A^2$ of the screw-rod A screw set-screws B, adapted to engage the part X, extending through the bore A′, to temporarily secure said article to the screw-rod for the purpose hereinafter mentioned. On the screw-rod A screws a nut C, formed with a barrel portion C′, terminating in a head $C^2$, formed with a bore $C^3$ in alinement with the bore A′, to permit the passage of the part to be raised or lowered. On the head $C^2$ is mounted to turn a swivel D, having in its head D′ a bore $D^2$ in screw alinement with the bores $C^3$ and A′, and in said head screw set-screws E for securing the part X temporarily to the head of the swivel. Between the swivel D and the head $C^2$ is interposed a ball-bearing F to allow convenient turning of the nut C, the latter being provided with a polygonal external portion $C^4$ for the application of a wrench or other tool used by the operator to turn the nut C on the fixed screw-rod A, the nut also having a handle $C^5$, adapted to be taken hold of by the operator for moving the device about and guiding it when in use.

In order to hold the swivel D from vertical displacement relatively to the head $C^2$ of the nut C, the said head is formed with an extension $C^5$, passing loosely through an opening in the swivel, a nut G screwing on the end of said extension and resting against the inner bottom face of the swivel to prevent the latter from becoming accidentally displaced on the nut C, but at the same time permit a free turning of the nut relatively to the swivel.

In using the device it is passed over the rod to be raised or lowered, and then the operator screws up the set-screws E to temporarily fasten the device to the swivel D, and then the operator turns the nut C to screw the same outward on the screw-rod A and lift the swivel D with the device attached thereto. When the nut C has been screwed up to its full extent on the screw-rod A, then the operator screws up the set-screws B and loosens the set-screws E to hold the device temporarily in position in the screw-rod A, while the operator turns the nut C in an opposite direction to screw it back on the screw-rod A. When this has been done, the set-screws E are again screwed inward to again fasten the device to the swivel D, and then the set-screws B are loosened and the nut C is turned to lift the swivel D with the device the second time. The above-described operation is then repeated until the rod is lifted to the desired extent. In lowering the screw-rod the device is used in the same manner only in reverse order.

From the foregoing it is evident that the screw-jack can be readily applied and operated to raise or lower the desired object.

Having thus fully described our invention, we claim as new and desire to secure by Letters Patent—

1. A screw-jack for oil and Artesian wells, comprising a hollow screw-rod, a head on said screw-rod and having an offset thereon for holding the screw-rod from turning, a set-screw in said head, a nut screwing on said screw-rod, a swivel mounted to turn on said nut and provided with a head having a bore in alinement with the bore in the head of the nut and that in the screw-rod, and a set-screw in the swivel-head, substantially as shown and described.

2. A screw-jack for oil and Artesian wells, comprising a hollow screw-rod, a head on said screw-rod and having an offset thereon for holding the screw-rod from turning, a set-screw in said head, a nut screwing on said screw-rod, a swivel mounted to turn on said nut and provided with a head having a bore in alinement with the bore in the head of the nut and that in the screw-rod, a set-screw in the swivel-head, and means for holding the swivel against displacement on the head of the nut, as set forth.

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