

(No Model.)

L. J. CRECELIUS.

LIFTING JACK.

No. 270,394.

Patented Jan. 9, 1883.

Fig. 1.

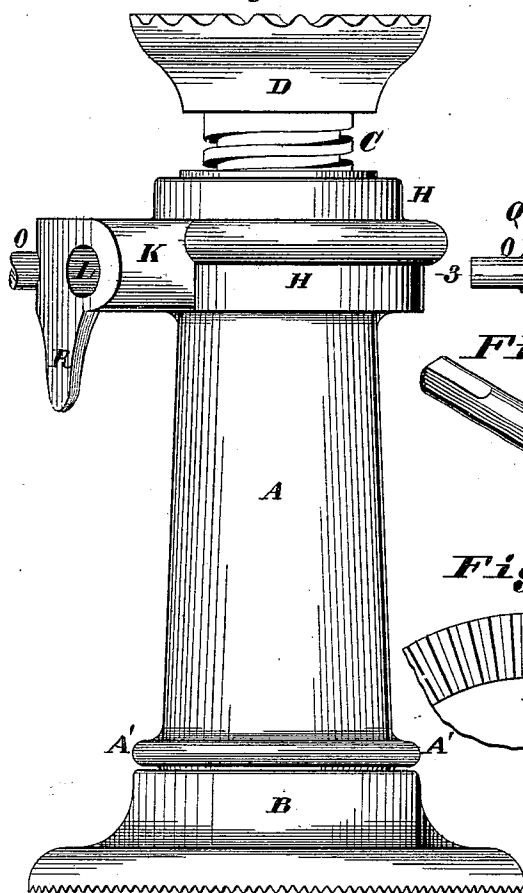


Fig. 2.

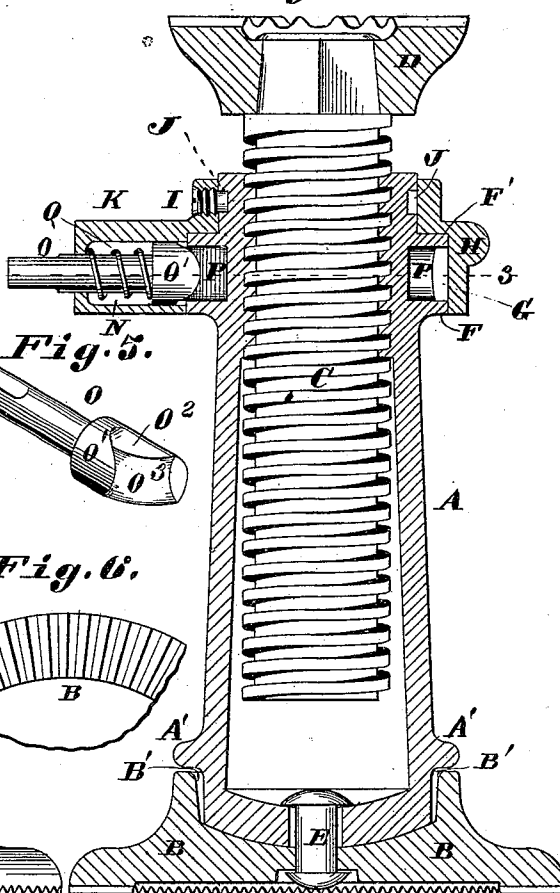


Fig. 5.

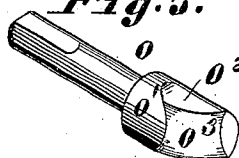


Fig. 6.

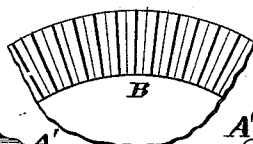
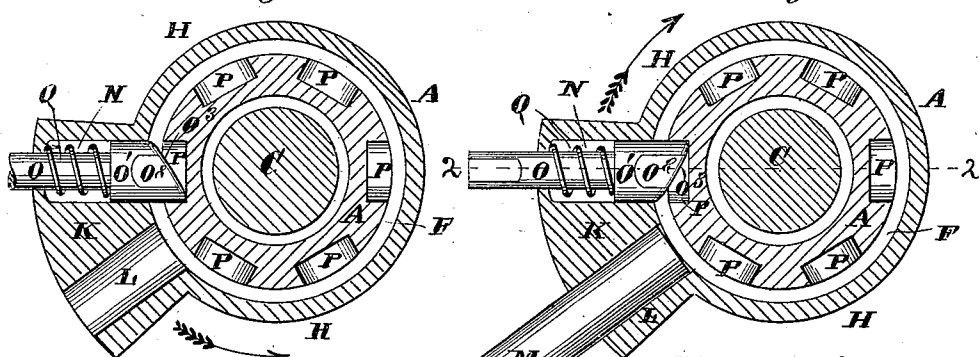


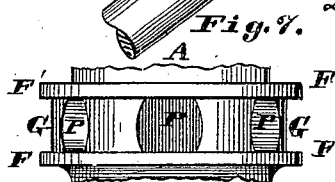
Fig. 4.

Fig. 3.



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UNITED STATES PATENT OFFICE.

LOUIS J. CRECELIUS, OF ST. LOUIS, MISSOURI, ASSIGNOR OF ONE-HALF TO
ANDREW WARREN, OF SAME PLACE.

LIFTING-JACK.

SPECIFICATION forming part of Letters Patent No. 270,394, dated January 9, 1883.

Application filed December 5, 1882. (No model.)

To all whom it may concern:

Be it known that I, LOUIS J. CRECELIUS, of the city of St. Louis, in the State of Missouri, have invented a certain new and useful Improvement in Lifting-Jacks, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, and in which—

10 Figure 1 is a side elevation with the operating-lever removed. Fig. 2 is a vertical section taken on line 2 2, Fig. 3. Fig. 3 is a horizontal section taken on line 3 3, Fig. 2, showing the operating-lever in place; and Fig. 4 is a similar view with the operating-lever removed and the pawl reversed, as hereinafter described. Fig. 5 is a perspective view of the pawl removed. Fig. 6 is a detail view of the bottom of the jack; and Fig. 7 is a detail view of the body of the jack, illustrating the shape of the openings that receive the inner end of the pawl.

25 My invention relates to a lifting-jack having a revolving body; and it consists in certain features of novelty hereinafter fully described and claimed.

Referring to the drawings, A represents the body of the jack; B, the base; C, the hoisting-screw, and D the head of the hoisting-screw.

30 The body A is hollow, and the interior part of its upper end is screw-threaded to receive the threads of the hoisting-screw. I say the upper end of the interior of the body is screw-threaded, but, as a matter of course, the thread may extend any distance down desired.

40 The base B has a cavity or opening, B', with a concave bottom to receive the lower convex end of the body A. This opening or cavity B' is somewhat larger than the lower end of the body that fits therein, and the hole in the bottom of the body, through which the connecting-bolt E for securing the body and base together passes, is somewhat larger than the bolt, and the object of these features is to allow the body to be slightly inclined in any direction to adjust itself to the direct line of pressure upon the head of the screw.

50 A' is an annular flange on the exterior lower portion of the body, a short distance above the

upper edge of the cavity B', the office of which is to exclude dirt from the cavity, and it may be made use of to limit the inclination of the body by coming against the said edge of the cavity.

55 On the upper exterior portion of the body A are two annular flanges, F F', forming a groove, G, which is closed by the lower portion of a collar, H, whose upper part rests upon the upper flange, F', as shown in Fig. 2, 60 and which is held from any upward movement by a transverse screw, I, whose inner end fits and works in an annular groove, J, of the body, and thus the collar, while held from any vertical movement on the body, is allowed to turn 65 freely thereon. The collar has a neck, K, with an opening or socket, L, to receive an operating-lever, M, and a hole or socket, N, to receive a pawl, O, with an enlarged head, O', which fits between the flanges F F' in the 70 groove G of the body A. The head of the pawl has flat sides O², which fit the flanges and prevent the pawl from turning when in working position.

75 P are recesses or openings in the body between the flanges F F' to receive the inner end of the pawl. These openings are made with flat sides, as shown in Fig. 7, to fit the flat sides of the head of the pawl. The inner end of the pawl has an inclined face, O³. The inner 80 portion of the hole or socket N is as large as the largest diameter of the head of the pawl.

85 Q is a spiral spring surrounding the stem of the pawl between the head and the outer part of the socket. The office of this spring is to hold the pawl in its inner position, so as to engage with the openings or recesses P. As the lever is operated, turning the collar H in the direction shown by the arrow, Fig. 3, the 90 pawl, engaging with the body, turns it, and when the collar is turned in the other direction the pawl, by means of its inclined face, is forced outward, which allows it to engage with the next hole or holes, after the manner of a 95 common ratchet. When the body is turned forward the screw, being held from turning by the pressure of the object upon it, is raised, hoisting the object. When the screw is to be lowered the body can be turned in the other 100

direction by simply drawing the head of the pawl outward into the socket N, where it can be turned half around, as shown in Fig. 4, and then, being released, is forced back to its inner position by the spring Q, where it is held from turning by its flat sides fitting the flanges F F' and the oblong or flat-sided recesses P, as described.

If desired, the collar H may have separate necks for the lever and pawl; but I prefer one only, as shown and described.

In my improved jack the body automatically adjusts itself to the direct line of pressure, the parts can easily be reversed to raise or lower the screw, as desired, and the operating-lever and pawl are always on the same elevation.

R is a projection depending from the outer end of the neck K, by which the jack can be carried from place to place.

I claim as my invention—

1. In a lifting-jack, the body and base, made in separate pieces, substantially as described, so that the body will be automatically adjusted to the direction of the pressure upon the screw, as set forth.

2. In a lifting-jack, the body and base, made in separate pieces, the latter having a cavity or opening with a concave bottom to receive the lower convex end of the body for the purpose of allowing the body to incline in any direction, for the purpose set forth.

3. In a lifting-jack, the body and base, made in separate pieces, the latter having a cavity or opening with a concave bottom to receive

the lower convex end of the body for the purpose of allowing the body to incline in any direction, and the body having an annular flange a short distance above the upper edge of the opening in the base for the purpose of limiting the inclination of the body, as set forth.

4. A lifting-jack having a revolving body and a non-revolving hoisting-screw, substantially as set forth.

5. In a lifting-jack, the body having annular flanges, with recesses between said flanges, a collar covering said flanges, having a neck with sockets—one to receive an operating-lever, and another to receive a pawl whose inner end fits in the said openings between the flanges—substantially as and for the purpose set forth.

6. In a lifting-jack, a reversible pawl having flat sides fitting between flanges of the body of the jack and in recesses between the flanges, substantially as and for the purpose set forth.

7. In a lifting-jack, the pawl having flat sides fitting between flanges of the body of the jack and in recesses between the flanges, which have flat sides, being held in its inner position by a suitable spring, and capable of being drawn out for the purpose of reversing it, all substantially as and for the purpose set forth.

LOUIS J. CRECELIUS.

Witnesses:

SAML. KNIGHT,
GEO. H. KNIGHT.