No. 752,656. PATENTED FEB. 23, 1904.

F. V. DALTON.

LIFTING JACK.

APPLICATION FILED JAN. 14, 1903.

NO MODEL. 3 SHEETS—SHEET 1.

Fig. 1.

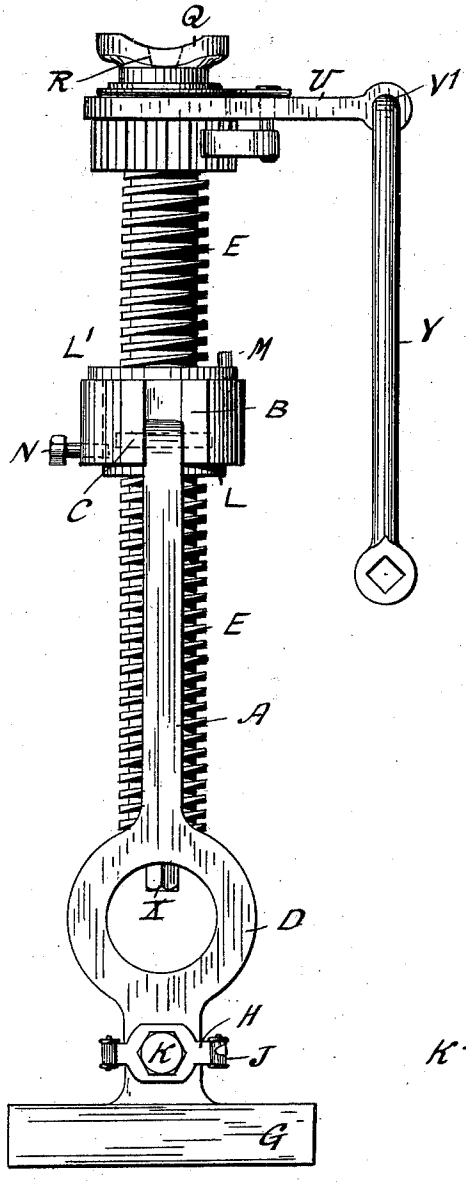
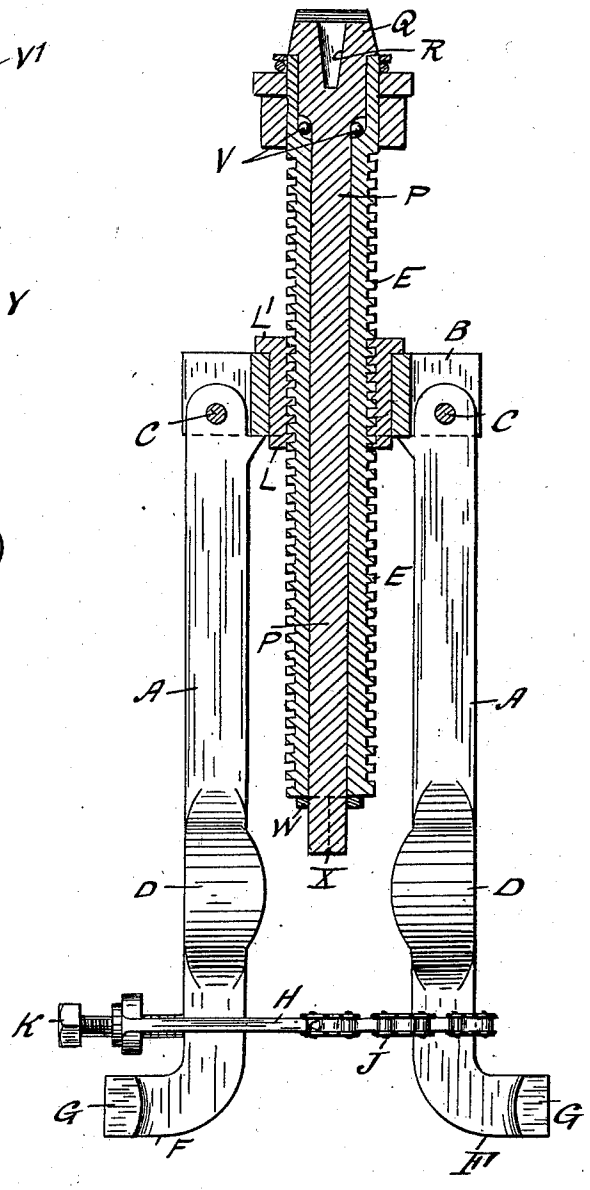


Fig. 2.



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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

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NO MODEL. 3 SHEETS—SHEET 2.

Fig. 3.

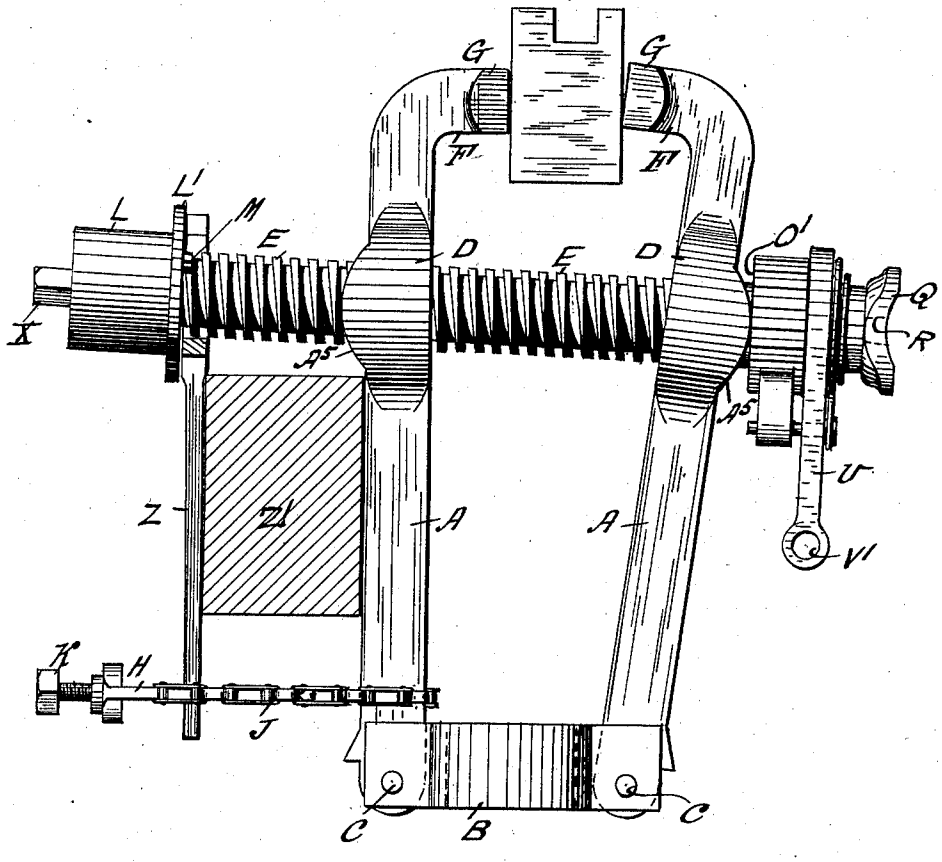
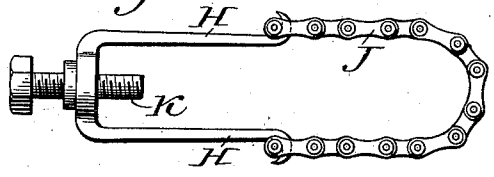


Fig. 5.



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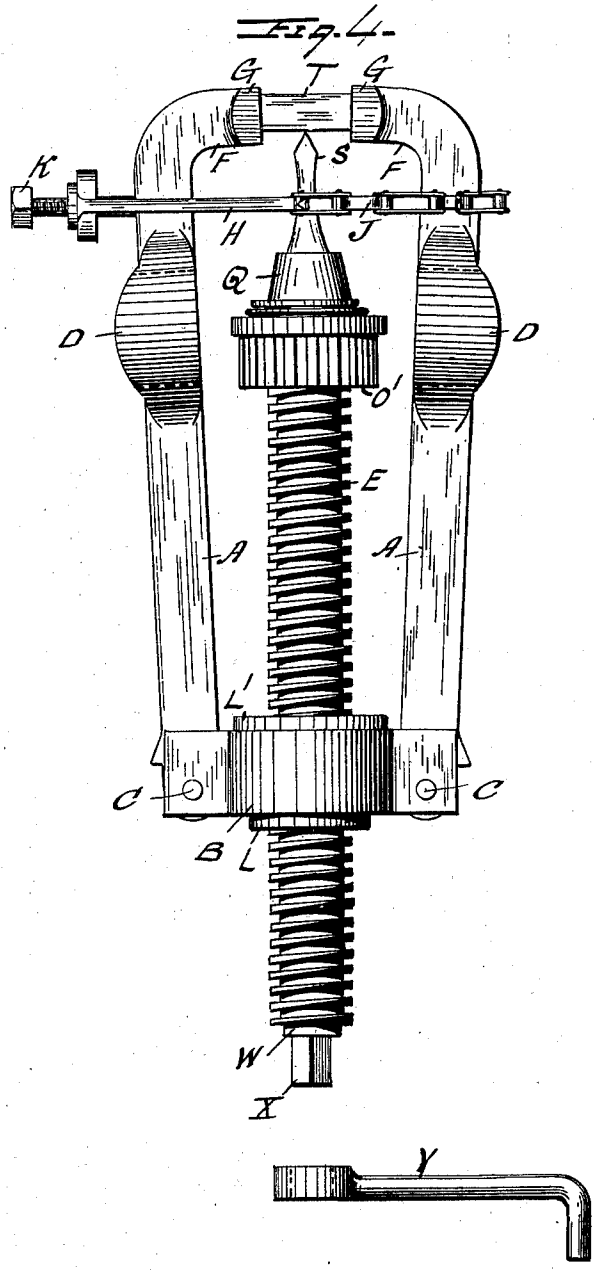
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LIFTING JACK.

APPLICATION FILED JAN. 14, 1903.

NO MODEL. 3 SHEETS—SHEET 3.

Fig. 4.



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No. 752,656. Patented February 23, 1904.

UNITED STATES PATENT OFFICE.

FITZGERALD VERITY DALTON, OF ST. NEOTS, ENGLAND.

LIFTING-JACK.

SPECIFICATION forming part of Letters Patent No. 752,656, dated February 23, 1904.

Application filed January 14, 1903. Serial No. 139,077. (No model.)

To all whom it may concern:

Be it known that I, FITZGERALD VERITY DALTON, a subject of the King of England, residing at St. Neots, England, have invented certain new and useful Improvements in a Combined Lifting-Jack, Vise, and Drill, of which the following is a specification.

This invention relates to a combined tool which may serve the purpose of a lifting-jack, of a vise, or of a combined vise and drill.

The combined tool is more especially intended for the use of automobilists and users of agricultural machines.

In the drawings, Figure 1 is a side view; Fig. 2, a front view, partly in section, of the tool arranged as a lifting-jack. Fig. 3 is a front view, partly in section, illustrating the tool as a vise and attached to a bar—for example, a fence-rail. Fig. 4 is a front view of the said tool as a vise and drill. Fig. 5 is a plan of a detachable bail and chain.

The legs A A of the jack are pivoted to the cross-piece B at C C, so that they may occupy either of the positions shown in Figs. 2 and 4, respectively. They are enlarged and perforated at D D to accommodate the screw E when used as a vise, as in Fig. 3. They are also curved at the ends, as at F, and provided with cross-heads, as at G, serving in one position as feet, Figs. 1 and 2, and in the other as clamping-faces, Figs. 3 and 4.

L is a threaded boss removably held in the cross-piece B and provided with a flange L′. It may be prevented from revolving by a pin M or by a screw N.

E is a screw similar to that of an ordinary screw-jack, but made hollow throughout, as in Fig. 2, to receive a spindle P, which carries the jack-head Q, which, however, has a socket—for example, a prismatic tapered recess—at R to receive different kinds of bits, a drill-chuck and the like, one of which—namely, a drilling-bit—being illustrated at S in Fig. 4.

T represents, in Fig. 4 as an example, a piece of material held between the jaws ready to be drilled.

U represents any known kind of reversible ratchet-lever mechanism by means of which the screw E may be revolved in either direction, as in ordinary jacks.

The spindle P is carried, preferably, by a ball-bearing at V, and a removable collar W holds it in place. It has a squared end at X to receive, for example, a handle, as Y, to rotate the spindle when it is used as a drill or the like. This handle at other times fits in the hole V′ of the ratchet mechanism.

H is a double hook or bail, and J a chain acting therewith as a bracelet, which may be pulled tight by the screw K. In Fig. 4 the clamping action of the vise is obtained by this bracelet. A more powerful vise is produced by removing the boss L and inserting screw E through the holes D, as shown in Fig. 3, and screwing it into the boss L. In conjunction with bracelet H J and a spanner used as a bar at Z the device may serve at the same time as a vise and be firmly fixed to any suitable fence-bar, such as shown at Z′, or equivalent support.

The bracelet H K may be used to attach or assist to attach the vise to a part of the motor-car or any other convenient support.

To give even bearing to the flange O′ at the end of the screw E and to the flange L′ of the boss L, the faces of the legs A A may be rounded, as at A^5, Fig. 3.

I do not confine myself to the exact construction of the parts illustrated and described; but

I claim—

1. In a lifting-jack, the combination of a jack-screw, a cross-piece carrying a screw-threaded bush for said jack-screw, and legs pivoted to said cross-piece and movable toward and from each other, said legs being shaped to coöperate with one another as a vise.

2. In a lifting-jack, the combination of a jack-screw, a cross-piece carrying a screw-threaded bush for said jack-screw and legs pivoted to said cross-piece and movable toward and from each other, said legs having their feet outwardly turned and ending in cross-heads and being movable each through a semicircle to coöperate with one another as a vise.

3. In a lifting-jack a hollow jack-screw in

combination with a rotary spindle traversing said jack-screw, and adapted to receive a drill and means for revolving said rotary spindle.

4. In a lifting-jack, the combination of a jack-screw a cross-piece carrying a screw-threaded bush for said jack-screw, and legs pivoted to said cross-piece and movable toward and from each other, said legs having perforations in them to coöperate with the removed jack-screw and its threaded bush to force the legs toward each other to act as a vise.

5. In a lifting-jack, the combination of a jack-screw, a cross-piece carrying a screw-threaded bush for said jack-screw, and legs pivoted to said cross-piece and movable toward and from each other, said legs having perforations in them to coöperate with the removed jack-screw and its threaded bush, to force the legs toward each other to act as a vise, the legs having rounded faces A^5 as and for the purpose set forth.

6. In a lifting-jack, the combination of a jack-screw, a cross-piece carrying a screw-threaded bush for said screw, leg-supports hinged to said cross-piece, a removable bail, a chain having detachable connection with said bail and a pressure-screw in said bail for the purpose set forth.

In testimony whereof I have signed my name to this specification in the presence of subscribing witnesses.

FITZGERALD VERITY DALTON.

Witnesses:
T. S. PORTER,
WM. P. STUART,
T. B. PORTER.