

(No Model.)

G. W. LOVELL.
DRILL JACK.

No. 559,730.

Patented May 5, 1896.

Fig. 1.

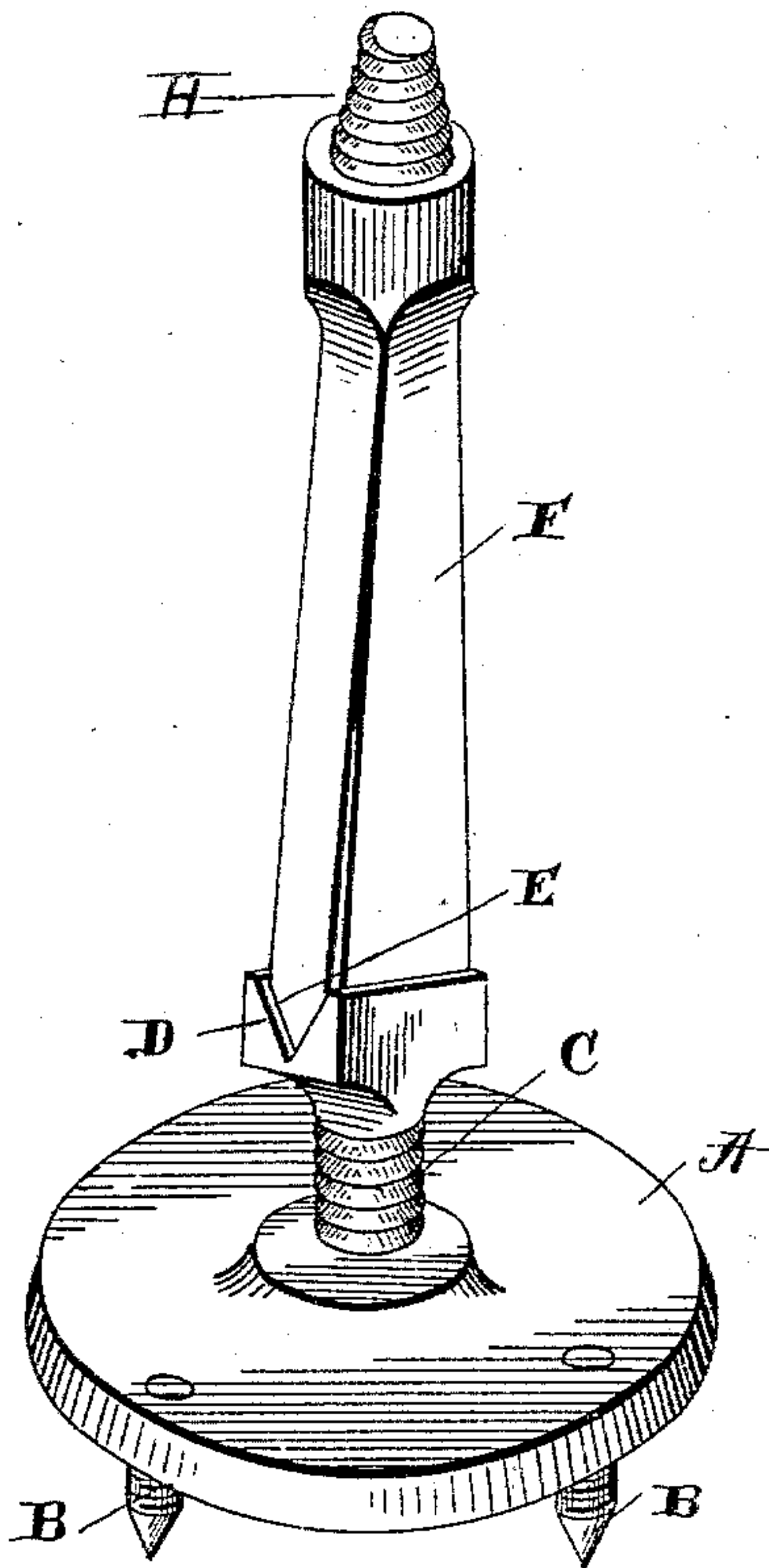


Fig. 2.

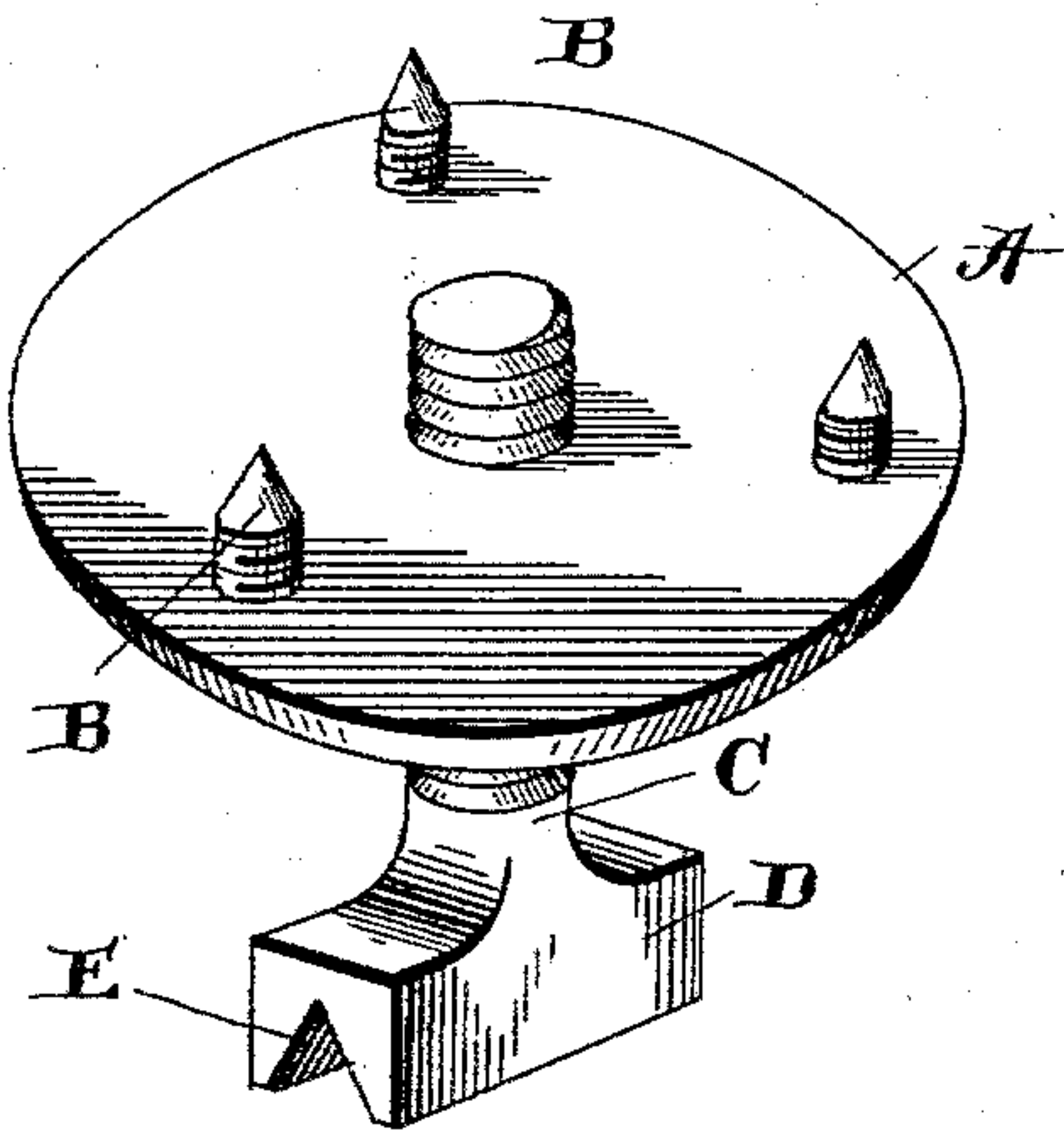
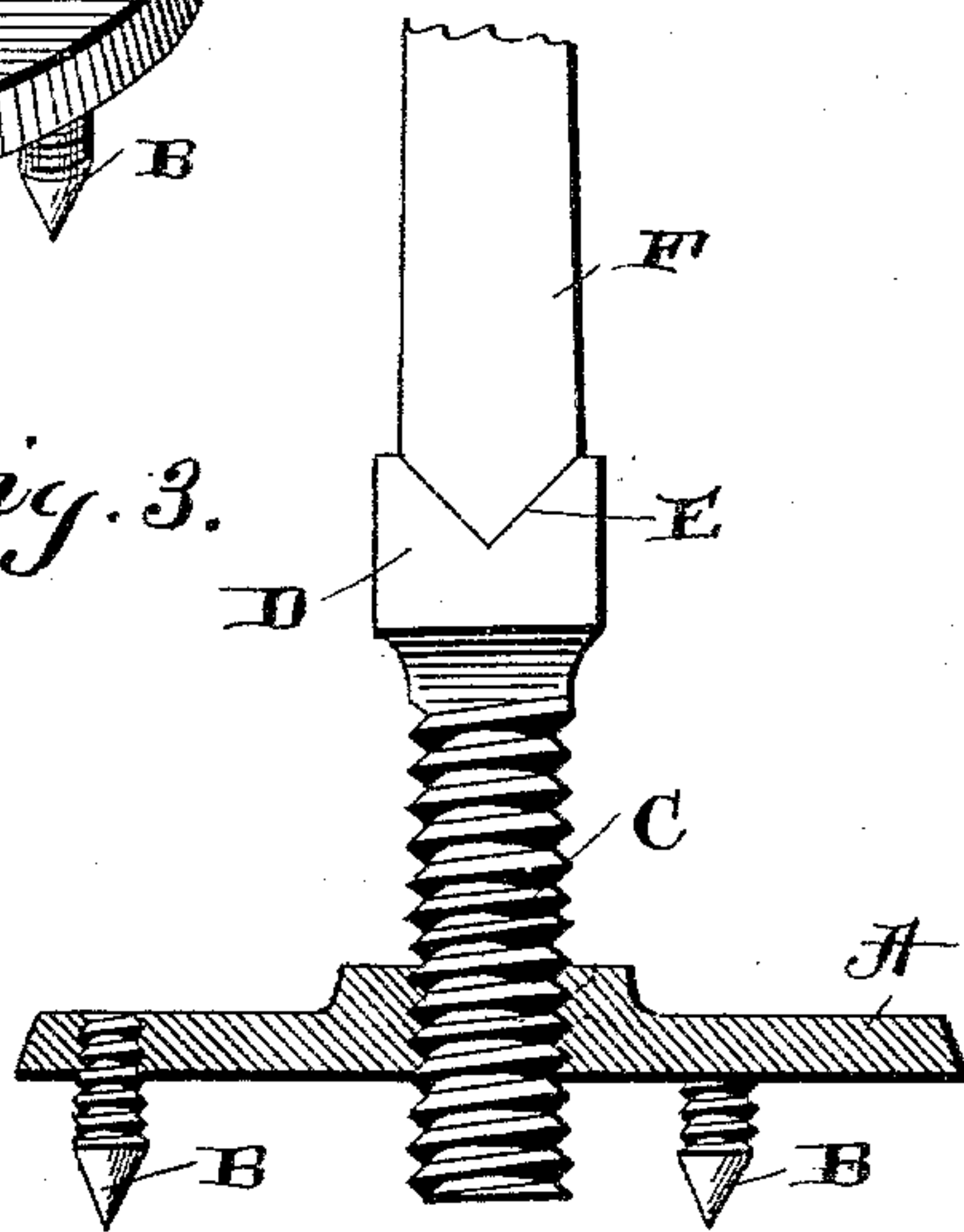


Fig. 3.



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UNITED STATES PATENT OFFICE.

GEORGE W. LOVELL, OF MARIETTA, OHIO, ASSIGNOR OF ONE-THIRD TO
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DRILL-JACK.

SPECIFICATION forming part of Letters Patent No. 559,730, dated May 5, 1896.

Application filed December 6, 1895. Serial No. 571,287. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. LOVELL, of Marietta, in the county of Washington and State of Ohio, have invented certain new and
5 useful Improvements in Drill-Jacks; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being
10 had to the accompanying drawings, which form part of this specification.

This invention pertains to drill-jacks, the object being to provide a device of improved construction for supporting the drill and at
15 the same time feeding it upward by rotation, so as to unite the threaded shank thereof with the drill rod or bar. Drills for oil-wells weigh from four hundred to five hundred pounds, and it is frequently necessary to detach them
20 for the purpose of sharpening at a forge, and the labor incident to removing and replacing the drills is considerable, requiring, as it does, the efforts of several men. The work incident to supporting the heavy drill when being
25 placed upon the drill rod or bar, as well as supporting the same when detaching it, is very great. I have simplified the above operation by providing a jack of improved construction for sustaining the weight of the drill
30 and at the same time raising or lowering it as may be required in attaching or detaching the same.

The invention consists in the novel features of construction hereinafter fully described and claimed, and illustrated by the accompanying drawings, in which—

Figure 1 is a perspective view of the jack with the drill in position thereon. Fig. 2 is an inverted perspective view of the jack. Fig.
40 3 is a vertical sectional view thereof.

A designates the base of the jack, which is here shown as circular, and B are feet provided therefor, the same being screw-threaded into the under side of the base, with their
45 lower ends pointed or sharpened, so as to bite the floor of the derrick and prevent the jack from slipping. The base is formed with the centrally-screw-threaded passage, and mov-

able therein is the screw-threaded standard C, carrying at its upper end the angular head D. 50 This head is formed with the transverse V-shaped depression E at its upper side, which is of the size sufficient to accommodate the lower or sharpened end of drill F. (Indicated in Fig. 2.) 55

In operation, whether it be desired to remove the drill from position upon the drill rod or bar or to place the same thereon after being sharpened, the jack is positioned upon the floor of the derrick, (not shown,) and in
60 case the drill is to be replaced upon the drill-bar the drill is lifted to position upon the headed end of the screw-bar, and then by rotating said bar by means of a wrench engaging its angular head the drill is supported and
65 gradually raised and rotated, so as to turn the threaded stem H of the drill into engagement with the drill bar or rod, thus avoiding the necessity of supporting the drill by manual strength when being attached. When re- 70 moving the drill, the operation is similar to that above described, only the rotation of the jack is reversed, so as to lower the drill from the bar, as will be readily understood.

Having thus fully described my invention, 75 what I claim, and desire to secure by Letters Patent, is—

In a drill-jack, the combination of base A formed with the vertical screw-threaded opening, a standard screw-threaded to move ver- 80 tically in the passage, the integral angular head D at the upper extremity of the standard and above the screw-threads thereon, to form a wrench-hold, said head being formed with the transverse V-shaped depression E in its 85 top surface to accommodate the lower sharpened end of a drill, whereby the drill may be raised and lowered in the manner and for the purposes herein specifically described and shown. 90

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE W. LOVELL.

Witnesses:

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