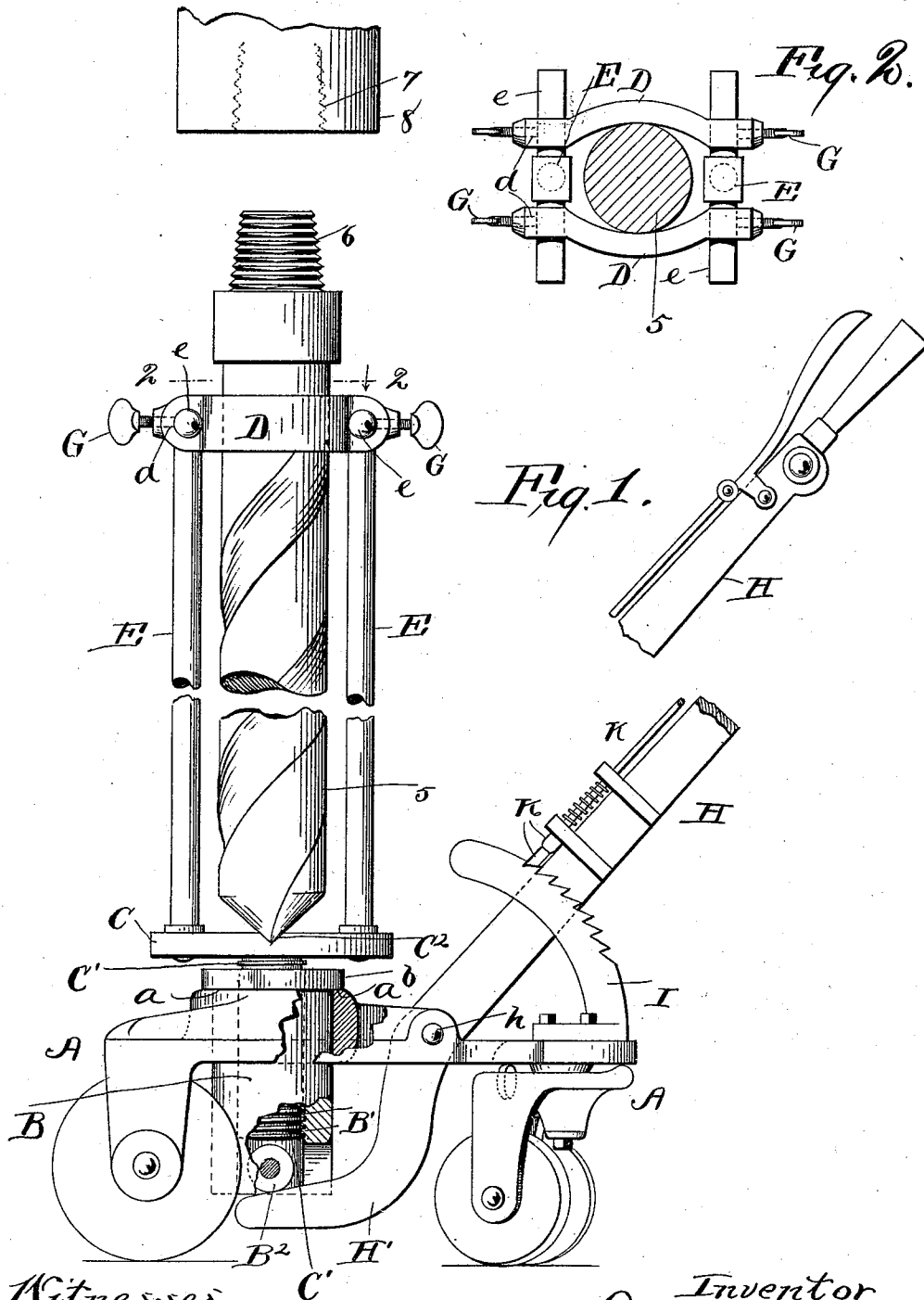


(No Model.)

F. W. WISER.
LIFTING JACK.

No. 525,247.

Patented Aug. 28, 1894.



Witnesses.
E. B. Gilchrist
[Signature]

Inventor.
Frank W. Wiser
By M. D. Seppelt & Co.
his attorneys.

UNITED STATES PATENT OFFICE.

FRANK W. WISER, OF CLEVELAND, OHIO.

LIFTING-JACK.

SPECIFICATION forming part of Letters Patent No. 525,247, dated August 28, 1894.

Application filed June 11, 1894. Serial No. 514,226. (No model.)

To all whom it may concern:

Be it known that I, FRANK W. WISER, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Lifting-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 the same.

My invention relates to improvements in lifting-jacks, more especially designed for lifting heavy drills into position preparatory to being secured to the drill-stem that is supported from the derrick in the usual manner.

The cutting-edges of drills require sharpening from time to time, and heretofore much inconvenience was attached to the handling of the drill in its removal from and attachment to the drill-stem.

The object of my invention is to provide a jack whereby heavy drills can, with facility, be removed from or lifted into position and secured to the drill-stem.

In the accompanying drawings, Figure 1 is a side elevation of the lifting-jack embodying my invention, portions being broken away and in section to reduce the size of the figure and to more clearly show the construction. Fig. 2 is a plan in detail, partly in section, on line 2—2, Fig. 1.

Referring to the drawings, A designates a wheeled truck or carriage that is provided with a seat *a* for the vertically-sliding box or sleeve B, that, at its upper end, has an external flange *b* adapted to engage and rest upon the aforesaid seat *a* in the lowermost position of the box or sleeve. Box or sleeve B is screw threaded internally, as at B', and the threaded bore of said sleeve or box is engaged by the correspondingly externally threaded spindle C' depending from and rigid with platform C upon which the lower end of the drill, 5, to be lowered or elevated, as the case may be, is adapted to rest, and which platform, at its central portion, is preferably provided with a groove or recess C² adapted to be engaged by the point or lowermost edge of the drill.

The drill is held against displacement laterally, preferably by means of a pair of clamps D adapted to engage opposite sides of the drill, respectively, as shown very clearly

in Fig. 2. The clamps, at their ends, are mounted upon horizontally arranged and parallel arms *e* of upright posts E that are secured in any approved manner to platform C. The clamps are adjustable endwise of the supporting-members to accommodate different sizes of drills, and are secured in the desired adjustment by means of set-screws G that engage the supporting-members through correspondingly-threaded holes *d* in the clamps.

Box or sleeve B, at or near its lower end, is provided with a roller B², that is engaged by the curved arm H' of a hand-lever H fulcrumed, as at *h*, to the frame of the truck or carriage.

The arrangement of parts is such that box or sleeve B, and consequently platform C and the drill supported thereby, are elevated or lowered according as lever H is moved in the one direction or the other.

Drills are usually secured to the drill-stem by the engagement of a correspondingly-threaded portion 6 at the upper end of the drill engaging a correspondingly-threaded part 7 on the drill-stem 8, and, it will, therefore, be observed that by my improved lifting-jack, wherein the drill-supporting platform is provided with an externally screw-threaded spindle C' engaging a correspondingly-threaded bore in the vertically-sliding box or sleeve, as hereinbefore described, said platform is also capable of being elevated and lowered by turning it in the one direction or the other, and that, consequently, the drill can readily be unscrewed from or screwed on to the drill-stem by turning said platform in the one direction or the other.

Suitable locking-mechanism for holding lever H in the desired adjustment is also provided, and consists preferably in a toothed or notched segment I rigid with the frame of the truck or carriage and arranged concentric with the fulcrum of lever H, with its notches or teeth adapted to be engaged by a spring-actuated bolt K, that is arranged and operated in any approved and well known manner and which it is not considered necessary to describe in detail.

What I claim is—

1. In a lifting-jack of the variety indicated,

the combination of a suitably supported vertically-sliding box or sleeve provided with a threaded bore, drill-supporting platform provided with a depending externally threaded spindle engaging the bore of said box or sleeve, suitable means for holding the drill against displacement laterally, and suitable means whereby the aforesaid box or sleeve and drill-supporting platform carried thereby can be elevated or lowered as desired, substantially as set forth.

2. In a lifting-jack of the variety indicated, the combination with a suitably supported vertically-sliding sleeve or box provided with a threaded bore and suitable means whereby said sleeve or box can be elevated or lowered, of the drill-supporting platform provided with a threaded spindle engaging the threaded bore of the aforesaid box or sleeve, upright posts E rigid with the platform, and suitable means supported by said posts for holding the drill against lateral displacement, substantially as set forth.

3. In a lifting-jack of the variety indicated, the combination with a wheeled truck or carriage provided with a seat *a*, vertically-sliding box or sleeve B provided at its upper end with an external shoulder or flange *b* adapted to rest upon said seat in the lowermost position of the box or sleeve and suitable means whereby said sleeve or box can be elevated and lowered, of the drill-supporting platform provided with a threaded spindle engaging the threaded bore of the aforesaid box or sleeve, and suitable means for holding the drill

against lateral displacement, substantially as set forth.

4. In a lifting-jack of the variety indicated, the combination with a wheeled truck or carriage, vertically-sliding box or sleeve B having a threaded bore and provided at or near its lower end with a roller B², and a lever H fulcrumed to the frame of the truck or carriage and engaging the aforesaid roller, the parts being arranged substantially as indicated, of a drill-supporting platform provided with a threaded spindle engaging the threaded bore of the aforesaid box or sleeve, and suitable means for holding the drill against lateral displacement, substantially as set forth.

5. In a lifting-jack of the variety indicated, the combination of a wheeled truck or carriage, vertically-slidable box or sleeve C having a threaded bore and provided with a roller B², lever H having a curved arm H' engaging said roller, and suitable mechanism for retaining the lever in the desired adjustment, of the drill-supporting platform C provided with a threaded spindle C', and grooved or recessed, as at C², substantially as shown, for the purpose specified.

In testimony whereof I sign this specification, in the presence of two witnesses, this 25th day of May, 1894.

FRANK W. WISER.

Witnesses:

C. H. DORER,
WARD HOOVER.