

(No Model.)

H. LIBBY.

JACK SCREW.

No. 286,717.

Patented Oct. 16, 1883.

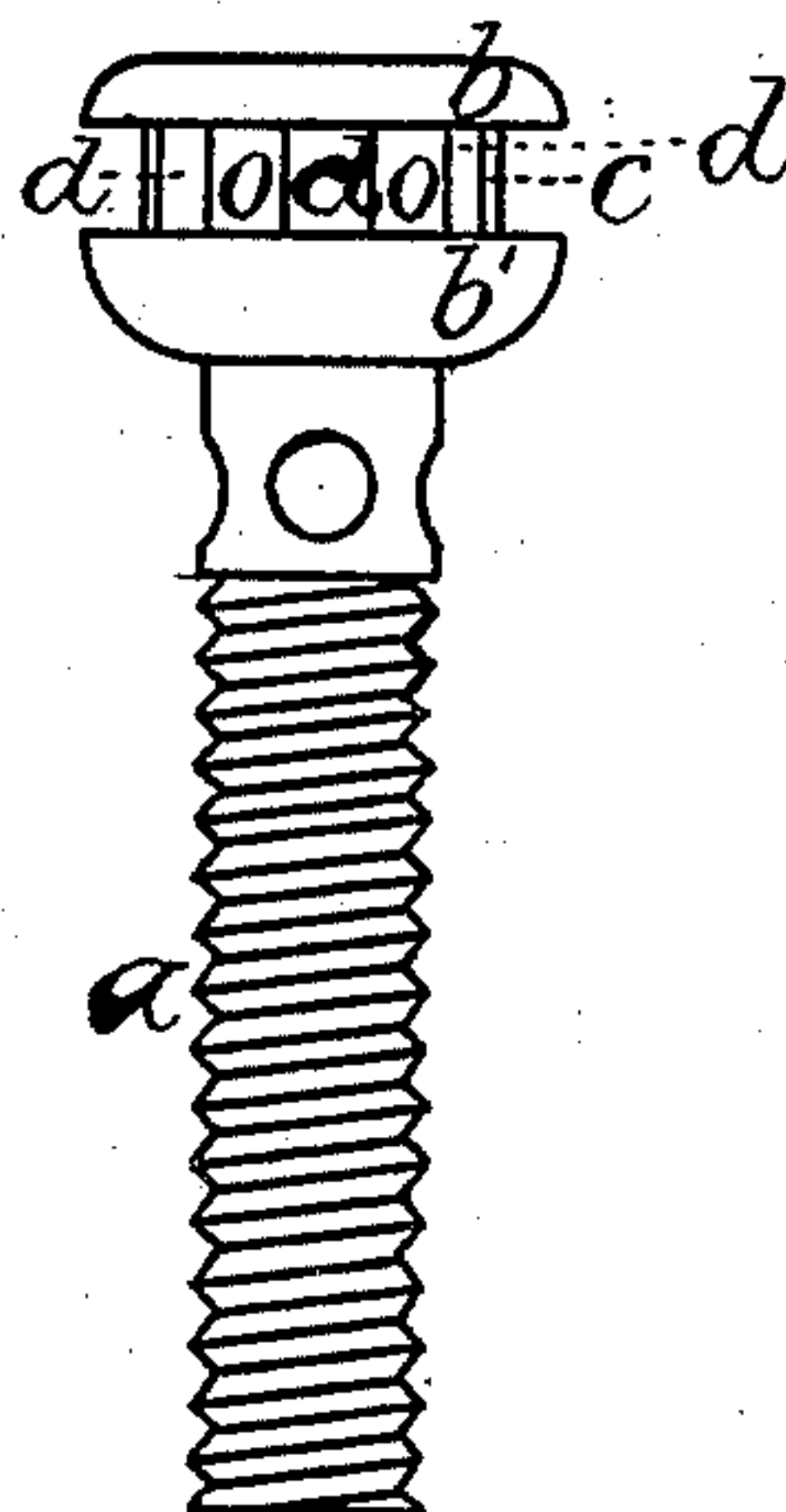


FIG. 1.



FIG. 2.

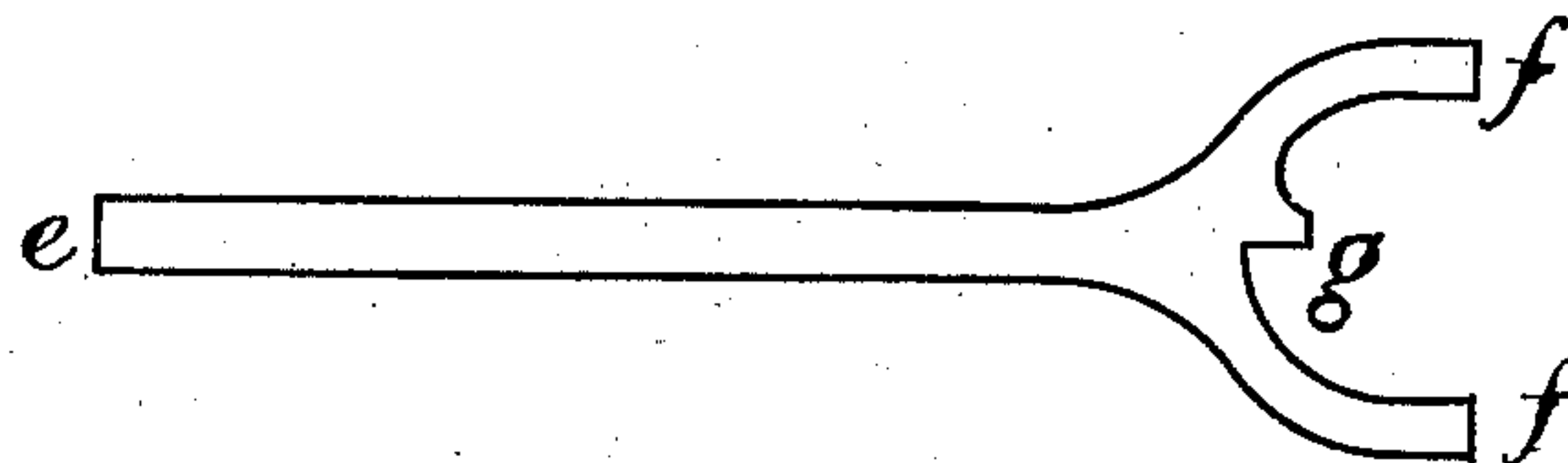


FIG. 3.

WITNESSES:

Chas. H. Kimball.
John P. Fenigan.

INVENTOR:

Horace Libby
Per Atty
William Henry Clifford

UNITED STATES PATENT OFFICE.

HORACE LIBBY, OF LEWISTON, MAINE.

JACK-SCREW.

SPECIFICATION forming part of Letters Patent No. 286,717, dated October 16, 1883.

Application filed July 20, 1883. (No model.)

To all whom it may concern:

Be it known that I, HORACE LIBBY, of Lewiston, in the county of Androscoggin and State of Maine, have invented certain new and useful Improvements in Screws; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Figure 1 is a side elevation. Fig. 2 is a view of the cog-gear wheel. Fig. 3 is a plan view of the lever.

Same letters show like parts.

My invention relates to screws for lifting weights and any articles to which it can be applied. It can be used as a jack-screw. It is capable of being applied when in a vertical or in a horizontal position.

a shows the shank or stock provided with a screw-thread, as seen in the drawings. Rotation of the shank, by the means hereinafter shown, moves the shank upwardly or downwardly, or backward and forward, as desired.

My invention relates more especially to the manner of constructing the head and the arm or lever by which the screw is rotated, and in the mode of operation. These I will now describe.

The head has the upper and lower flanges, *b b'*. Between them is the groove or channel *c*. Within the groove or channel *c* are the cogs *d*, with depressions between the cogs, as illustrated. *e* is the lever by which the screw is worked. It has the bifurcations *f f*, and in the center of the space between them the catch *g*. The bifurcations *f f* and the bifurcated end of the arm or lever fit into the groove or channel *c*, and partly encompass the head of the screw. The arm or lever is kept in place by

the two flanges *b b'*. It can thus be turned around in the groove without danger of slipping or falling down. The catch *g* fits into the depressions *o*. The catch has one straight and one inclined edge. When the catch is in one of the depressions, turning the arm or lever *e* in one direction brings the straight edge up against one of the cogs in the groove, and so causes the shank or the screw to turn. Then when the arm or lever is swung as far as convenient it can be turned back to get another leverage, and so on. The inclined back edge of the catch enables it to slide readily over the cogs. I thus have a lever-screw which is locked when it is desired to turn the screw, and which admits of the easy backward motion of the lever without disengaging it from the shank or its head. I also produce a lifting-screw to which the lever can be applied and securely connected, and then removed from it and laid aside when desired. By reversing the lever the screw can be turned in either direction, to the right or left.

What I claim as my invention, and desire to secure by Letters Patent of the United States, is—

The ratchet for a lifting screw or jack, formed by the cog or cogs *c*, the upper and lower flanges, *b b'*, in combination with the lever or arm *e*, having the bifurcations *f f*, and the catch *g*, having a vertical face on one edge and an inclined face to the other, the one to catch the cogs *c* and the other to slide over them as the lever is moved, as herein set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

HORACE LIBBY.

Witnesses:

GEORGE A. CALLAHAN,
EMERY BAILEY.