

(No Model.)

2 Sheets—Sheet 1.

C. GRACEY.
LIFTING JACK.

No. 254,815.

Patented Mar. 14, 1882.

Fig. 1

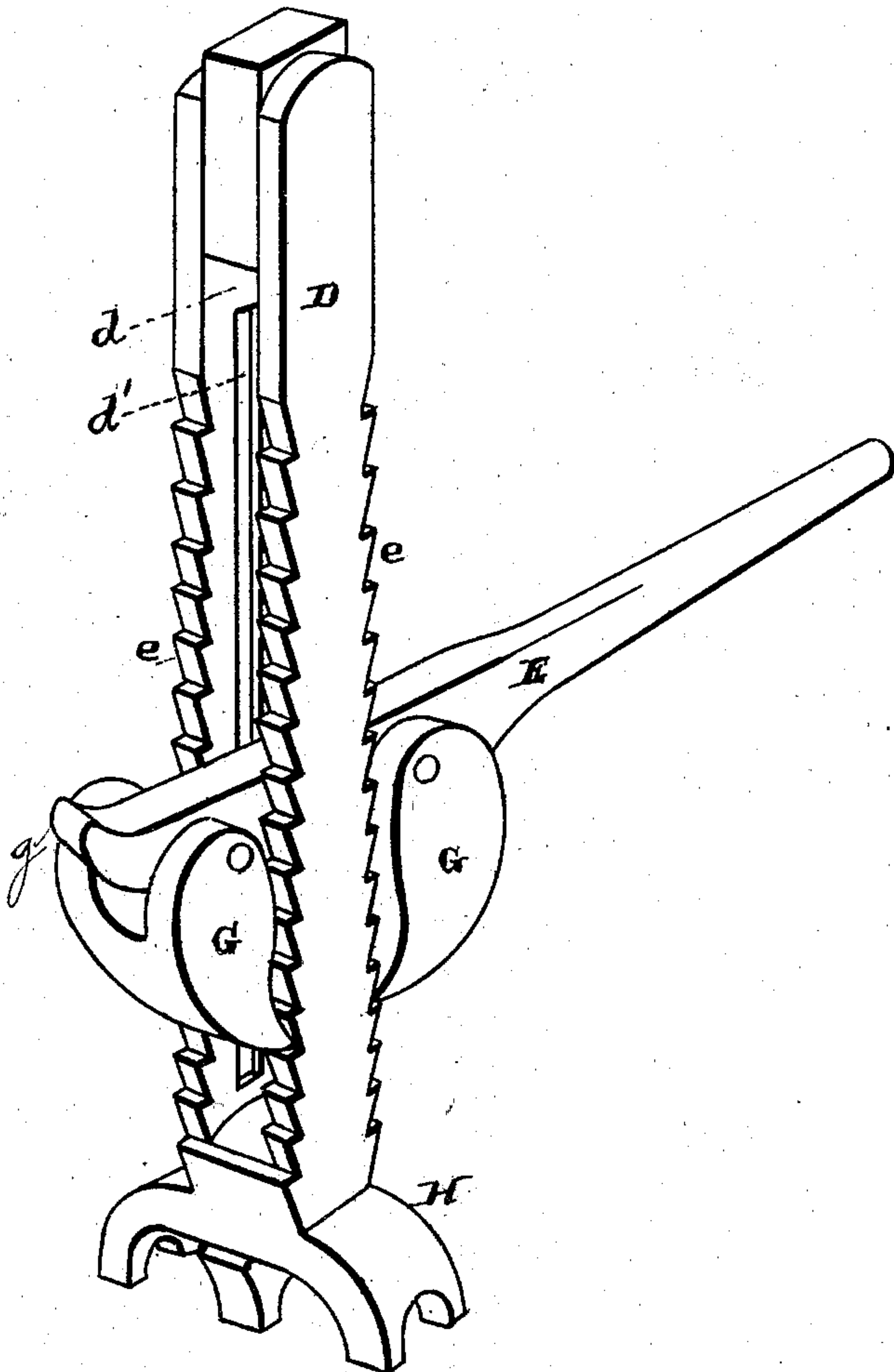


Fig. 2

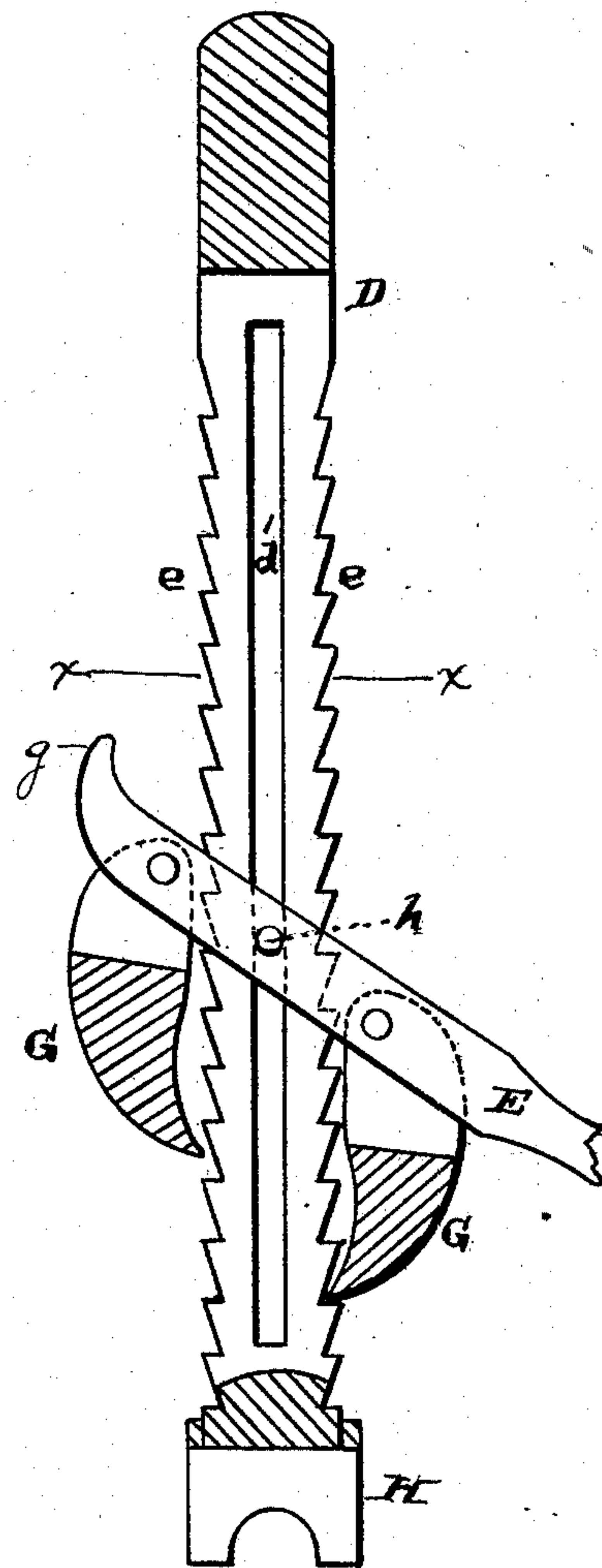
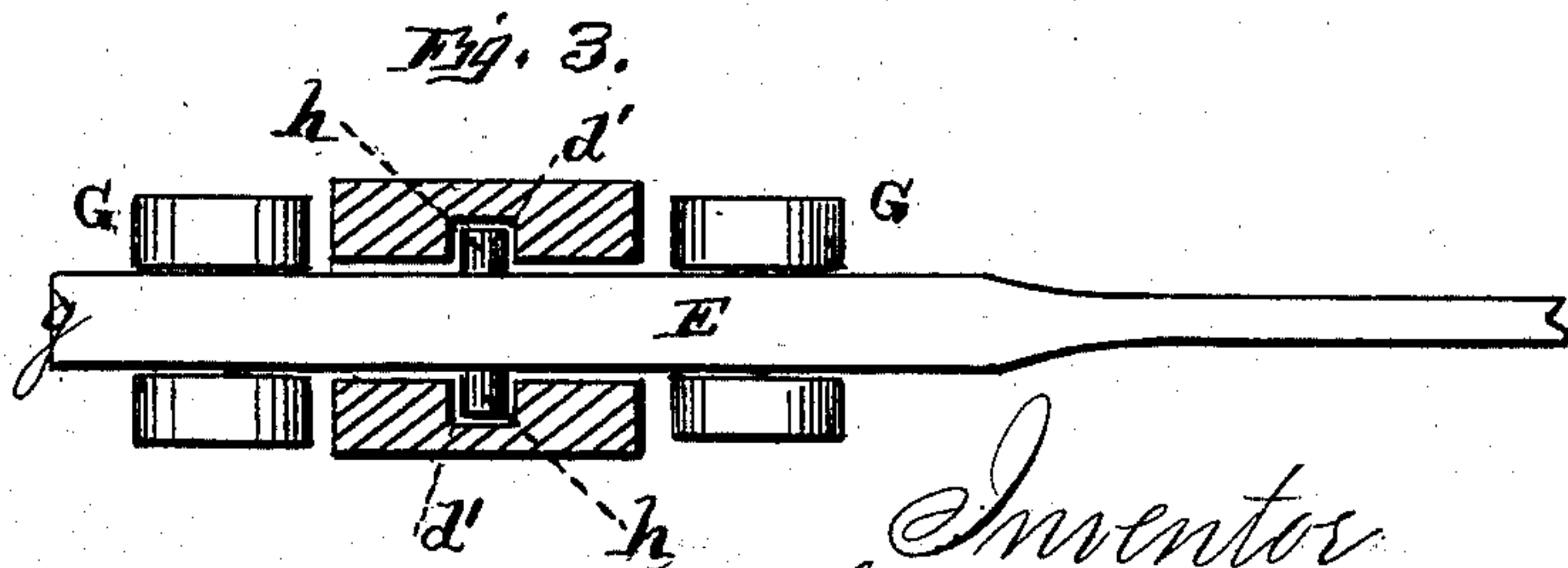


Fig. 3.



Witnesses
Geo. H. Strong
Frank A. Brooks

Inventor
Charles Gracey
By Dewey & Co. Attys

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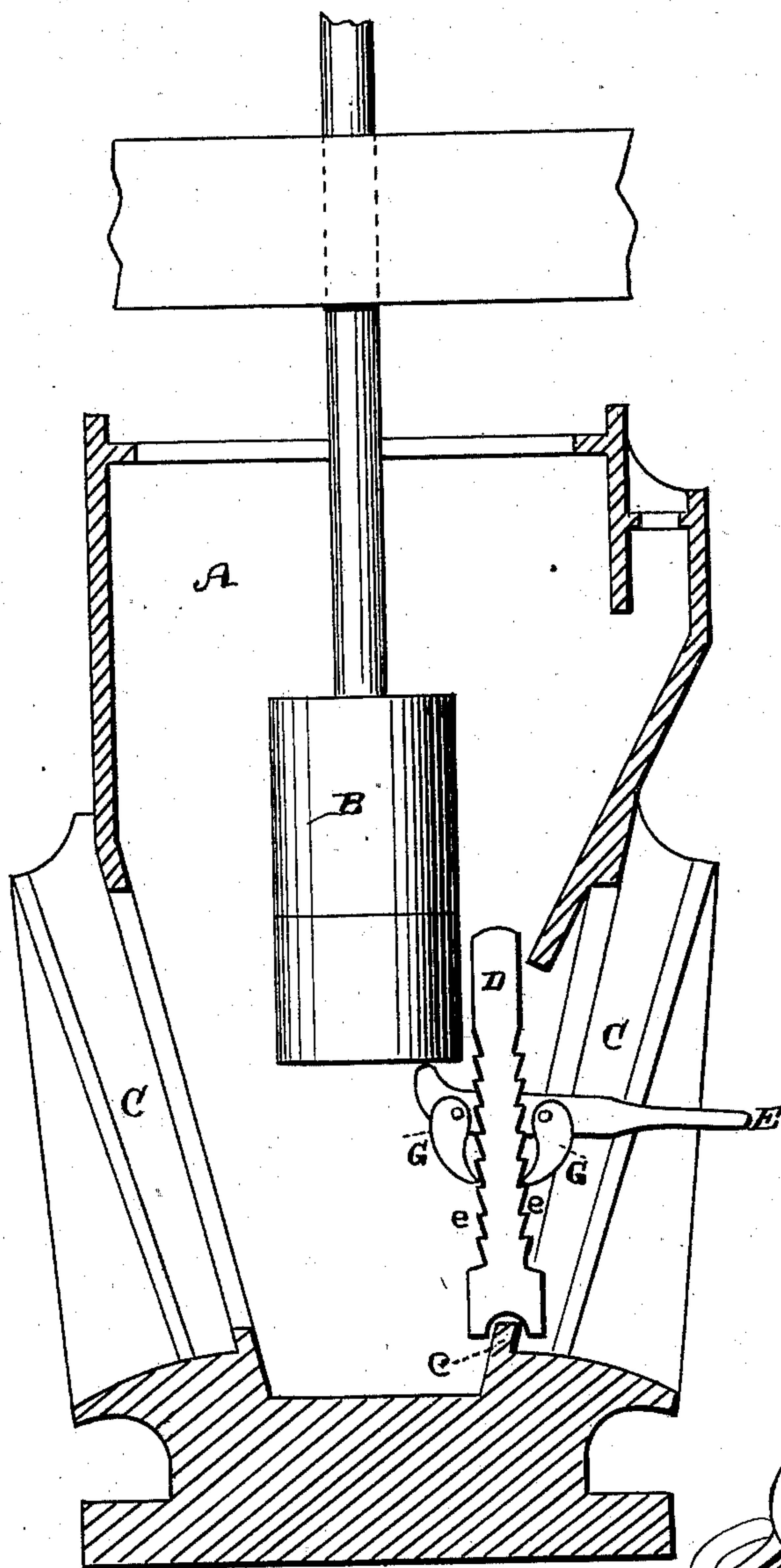
2 Sheets—Sheet 2.

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Fig. 4.



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UNITED STATES PATENT OFFICE.

CHARLES GRACEY, OF CONTENTION, ARIZONA TERRITORY.

LIFTING-JACK.

SPECIFICATION forming part of Letters Patent No. 254,815, dated March 14, 1882.

Application filed December 28, 1881. (No model.)

To all whom it may concern:

Be it known that I, CHARLES GRACEY, of Contention, county of Cochise, Territory of Arizona, have invented a Lifter for Stamps of Ore-Mills; and I hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to a novel lifting device, herein shown as specially adapted for lifting the stamp of ore-mills; and it consists of a lever fitted through a slotted vertical rack and carrying eccentrically-pivoted pawls, which are adapted by the motion of the lever to alternately engage with the rack on each side and to travel upward, carrying with them said lever.

The vertical rack is provided with a peculiar foot, which adapts it to fit the lip of a mortar, in which position the lever extends within the mortar through the screen-opening, and may be fitted under the stamp to raise it, all of which will hereinafter fully appear, reference being made to the accompanying drawings, wherein—

Figure 1 is a perspective view. Fig. 2 is a vertical section. Fig. 3 is a horizontal section through the line *x x*, Fig. 2. Fig. 4 is a vertical sectional view of a battery-stamp, showing my invention applied.

In stamp-mills there is sometimes a necessity to raise a stamp for one cause or another and hold it in a raised position until the necessity ceases. This is accomplished in various ways, but usually by placing blocks under them—a well-known device.

The object of my invention is to provide a lifting device which is ready of application and may be used with effect, as will be fully seen.

Let *A* represent a mortar of ordinary kind, in which the stamps *B* are adapted to be raised by cams above and dropped.

C will represent the screen-opening of the mortar, and *c* a lip or flange usually formed upon mortars, and which serves as one of the securities for the screens.

D is a standard, having an extended slot, *d*, in the sides of which are grooves *d'*. Upon the faces or sides of the standard are notches

or teeth *e*, having a straight top and inclined faces, as shown.

E is a lever, loosely passing through the central slot, *d*, and having upon its sides studs *h*, which slide in the grooves *d'* in the standard. The short projecting end *g* of the lever is preferably turned up slightly, as shown.

G G are pawls. These are made of shape as shown, and have their upper ends slotted to receive the lever *E*. One pawl is pivoted to the lever on each side of the standard, and the pivot-points are so placed out of line with the center of gravity that the pawls will always swing toward the standard and engage with the notches or teeth thereon. The ends of the pawls are so made that in ascending they will slip over the inclined faces of the teeth and engage with their straight tops.

The bottom of the standard is provided with a broad foot, *H*, bifurcated lengthwise, as shown.

In the application of the device to the mortar, this slotted foot rests upon the lip *c*, and fits over it snugly, thus forming a steady and secure bearing. The lever, when at the bottom of the standard, projects its short end into the mortar through the screen-opening, and, being about on a level with the bottom of the stamp, is fitted under said stamp, its upturned point enabling this to be done without trouble.

When the end is under the stamp, the operator moves the long end of the lever up and down. When he pulls it down the inner pawl is raised, and, on account of being eccentrically pivoted, drops into and engages with a notch.

When the lever is pushed up, the inner pawl forms a bearing and the outer pawl is raised to a higher notch, and so on to the top. Each notch forms a new bearing for the elevation of the lever. As the lever rises, its end being under the stamp, the stamp rises also.

By extending the leverage the operation may be rendered very easy. The stamp may be thus raised to and retained at any desired position.

The studs *h* upon the lever, fitting the grooves *d'*, serve to guide the lever and keep it in place.

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

5 The slotted standard D, provided with a bifurcated foot, H, grooves *d'*, and notches *e*, flat on their upper faces, in combination with the lever E, having projecting end *g* and studs *h*, fitting into the grooves *d'*, and the pair of swinging pawls G, all constructed, arranged,

and operated as set forth, whereby the lever 10 is made to travel toward the top of the standard, as specified.

In witness whereof I hereunto set my hand.

CHARLES GRACEY.

Witnesses:

F. L. MOORE,
M. BARRETT.