

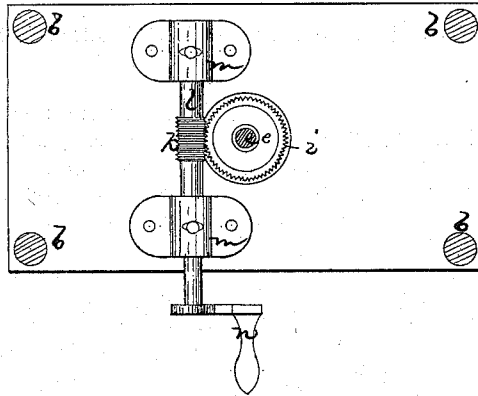
JOHN J. CRAWFORD.

Improvement in Screw-Presses.

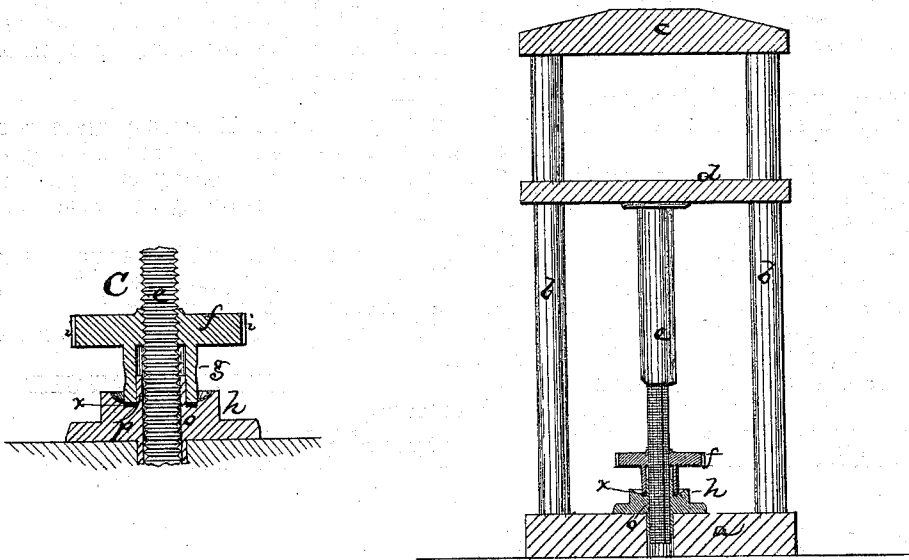
No. 126,679.

Patented May 14, 1872.

B



A



Witnesses.
M. W. Frothingham.
G. H. Loring.

John J. Crawford.
By his Atty.
Crosby & Gould.

UNITED STATES PATENT OFFICE.

JOHN J. CRAWFORD, OF LOWELL, MASSACHUSETTS.

IMPROVEMENT IN SCREW-PRESSES.

Specification forming part of Letters Patent No. 126,679, dated May 14, 1872.

To all whom it may concern:

Be it known that I, JOHN J. CRAWFORD, of Lowell, in the county of Middlesex and State of Massachusetts, have invented an Improvement in Screw-Presses; and I do hereby declare that the following, taken in connection with the drawing which accompanies and forms part of this specification, is a description of my invention sufficient to enable those skilled in the art to practice it.

My invention relates to the construction of a screw-press in which a stationary top plate is used and a movable platen or follower, which is forced upward to compress between it and the stationary top plate or head the goods to be pressed. The follower is fixed upon the top of a screw-threaded shaft, encircling which shaft is a rotary nut which rests upon a suitable support, rotation of the nut effecting the rise or descent of the shaft and follower.

The drawing represents a press embodying my invention.

A shows the press in sectional elevation. B is a sectional plan. C shows the nut in section, enlarged.

a denotes the base. *b b b b* are four vertical posts, upon which is mounted the stationary head or plate *c*. *d* denotes the follower, fixed on top of a screw-threaded shaft, *e*, the posts extending through the follower and serving as guides for movements of the follower. *f* denotes the rotary nut that works upon the screw-shaft, the nut having a tubular extension or ring, *g*, on its under side, which ring rests upon a socket or bearing, *h*, fixed upon the bed *a*, said bearing being, preferably, cup-shaped, or having a concave face, in which the nut-ring

rests, this shape receiving and retaining the oil requisite to lubricate the supporting-nut, under which nut may be placed a washer, *x*, the bearing or socket having a central hole, *o*, through which the screw-shaft plays vertically, and a short, upwardly-projecting neck, *p*, which makes the inner wall of the oil-receiving socket. The nut has external gear-teeth, *i*, with which engages a worm, *k*, on a horizontal shaft, *l*, rotating in stationary bearings *m*, a winch or handle, *n*, on the end of the shaft, imparting rotation to the shaft *k* and effecting the rise or descent of the screw-shaft *e* and its platen or follower.

By thus arranging the press it will be seen that all the operative or moving mechanism is entirely below the follower, so that the goods to be pressed are always out of the way of the oil and other drippings; and also that the actuating-nut may always stand in oil, and be worked with great ease and freedom from friction on account of this feature.

I claim—

1. The improvement in screw-presses, consisting in the nut-threaded gear rotating upon and having its seat in a bearing having an oil-cup or concave, substantially as shown and described.

2. Also, in combination with the shaft *e* and the follower, the nut-threaded gear, rotating upon the guide sleeve or collar *p*, projecting up from the seat *h*, substantially as shown and described.

JOHN J. CRAWFORD.

Witnesses:

FRANCIS GOULD,
M. W. FROTHINGHAM.