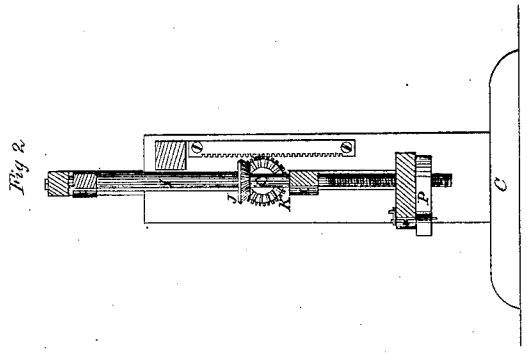
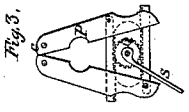
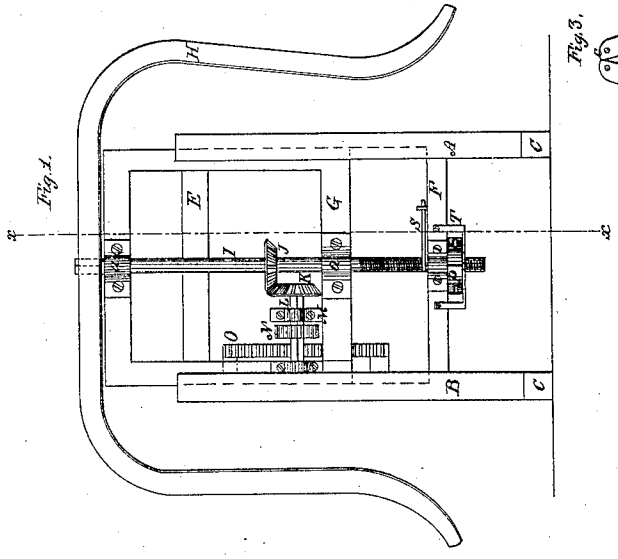
D. King,

Cotton Press.

No. 63,258. Patented Mar. 26, 1867.







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AM. PHOTO-LITHO. CO. N.Y. (OSBORNE'S PROCESS)

United States Patent Office.

DAVID KING, OF ABERDEEN, OHIO.

Letters Patent No. 63,258, *dated March* 26, 1867.

IMPROVEMENT IN PRESSES.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, DAVID KING, of Aberdeen, in the county of Brown, and State of Ohio, have invented a new and improved Press; and I do hereby declare that the following is a full, clear, and exact description of the same.

The nature of my invention consists in constructing a screw-press in such a manner that the screw, after it has been turned or run down, then by parting the nut, (which is made in two sections,) from the screw-shaft by turning a lever; then by means of a rack and pinion the screw is elevated rapidly, thus saving the time of running the screw up and down in the nut.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

Figure I is a side elevation of my improved press.

Figure II is a longitudinal vertical sectional elevation of the same.

Figure III is a plan view of the nut, showing it in sections and the means by which it is opened and closed.

Letters of like name and kind indicate like parts in each of the figures.

A and B represent two upright posts of proper height and dimensions, the lower ends of which are rigidly secured to base-timbers C C, also of proper dimensions. Upon one side and at the top of the said posts is a beam or cross-timber, E, firmly secured to support the top of the said posts and keep them in their proper position. Near the lower ends of the posts A and B is another cross-timber, F, firmly secured thereto, also for the purpose of supporting the said posts A and B. G is a sash that moves up and down in grooves in the sides of the posts A and B when in operation. H is a curved lever that passes over the top of the sash and frame, with its ends extending downward to a convenient point, where the power is applied to operate the press. I is a screw-shaft that is located and has bearings, *a a*, in the centre of the sash G. Between the two bars of the sash G, upon the shaft I, is firmly secured a bevel gear-wheel, J, that fits and meshes into a corresponding bevel gear-wheel, K, which is also secured upon the outer end of the shaft L, the said shaft L having a bearing upon a short post, M, located in the lower cross-bar of the sash G, while the other end of the shaft L has a bearing in the side piece or stile of the sash. Near the stile of the sash upon the shaft L is a gear-wheel, N, that fits and meshes into a rack, O, the rack O being secured to the post B for the purpose of elevating and lowering the sash. P is a nut made in two sections; the ends of the said sections being pivoted at *e*, are allowed to open and close, as may be desired, by means of the rack and pinion Q, and lever S; the nut P will open and close so as to engage or disengage the screw-shaft I, upon which the nut P works. The nut P is held in its position upon the under side of the lower cross-piece of the frame, by means of a strap or stirrup, T, that is secured to the lower cross-piece of the frame or posts A and B.

The operation is easy and powerful, and possesses a great advantage over the common screw-press in saving time by the means employed in elevating and lowering the screw. It will be understood that the gear-wheel N is movable upon the square shaft L, so that when the screw is in operation the gear-wheel N is slipped out of gear from the rack O. When it is desired to elevate the screw rapidly, the gear-wheel is moved upon the shaft so as to engage the rack O, and the sections of the nut P opened so that the shaft or screw I will move freely up and down therein, then turning the lever H, puts in motion the screw-shaft I, upon which is the bevel-wheel J that imparts motion to the corresponding gear-wheel K; also to the gear-wheel N, which is engaged in the rack O, which is firm in its position, causes the gear-wheel N to traverse the rack and raise the sash and screw-shaft I to any point of elevation.

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

1. The rack O, gear-wheels J and K, in combination with the screw-shaft I, and sash G, substantially as shown and described and for the purposes set forth.

2. I claim the nut P made in sections, as herein shown and described, in combination with the shaft I, sash G, and posts A and B, substantially and for the purposes herein set forth.

DAVID KING.

Witnesses:

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