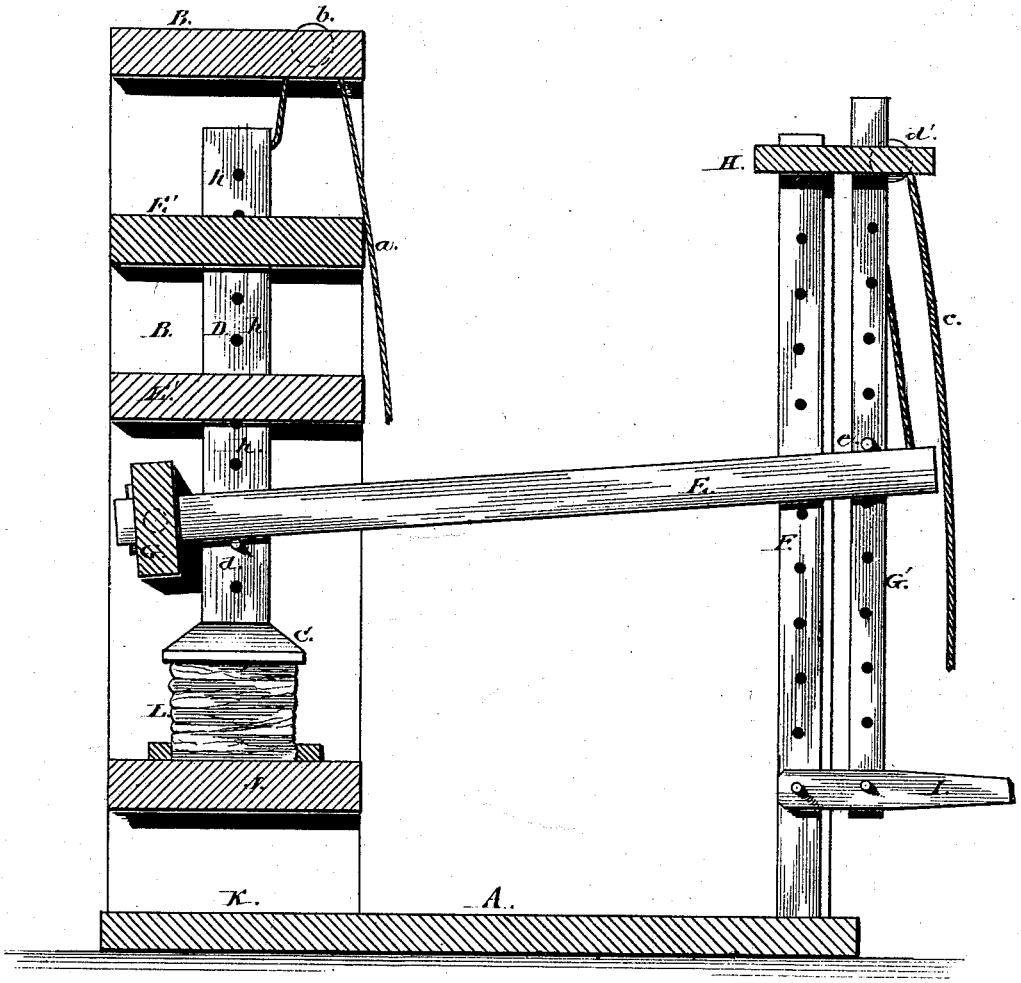
# A. W. HARRINGTON.

## Press.

No. 165,327. Patented July 6, 1875.




WITNESSES:

Edw. W. Donn

Allgardner

INVENTOR:

Anthony W. Harrington

By Wilton C. Donn ATTORNEY

# UNITED STATES PATENT OFFICE.

ANTHONY W. HARRINGTON, OF BEWLEYVILLE, KENTUCKY.

## IMPROVEMENT IN PRESSES.

Specification forming part of Letters Patent No. **165,327**, dated July 6, 1875; application filed April 2, 1875.

*To all whom it may concern:*

Be it known that I, ANTHONY W. HARRINGTON, of Bewleyville, in the county of Breckenridge and State of Kentucky, have invented certain new and useful Improvements in Tobacco and Cider Presses; 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 it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to certain improvements in the construction of cider and tobacco presses, the object of which is to more thoroughly compress the materials by the application of the power of the compressing-levers, and to facilitate their management and that of the plunger.

The invention consists, essentially, in providing the long pressing-lever with a fixed fulcrum, whereby it can be adjusted to be applied to the plunger-shaft at different points during the operation of pressing the material; also, in constructing the plunger-shaft so as to be secured in position while the lever is being shifted, and to lift it from its place on the material; also, in providing the power end of the lever with a small lever to operate it, which is connected therewith by an adjustable connecting-bar, by means of which a new purchase may be obtained by the small lever when the press-lever is shifted in its position on the plunger-shaft.

The drawing shows a vertical longitudinal section of my improved press.

A is the bottom of the press. B B are the housing. C is the plunger, and D is the plunger-shaft. The housings are connected together by the cross-plates E′ E″, strongly secured therein by mortise-and-tenon connections. In the center of each of the cross-plates E′ E″ are mortises or guides, in a vertical line, through which the plunger-shaft D is placed, so as to move freely upward and downward. *a* is a rope attached to the top of the shaft D, and run over the pulley *b*, secured in the housings, by means of which the plunger is drawn up and out of the hogshead or box. When so lifted the plunger is secured by a pin passed through one of the holes *n* in the shaft above one of the cross-plates, where it is securely held. E is the long press-lever, forked so as to straddle the plunger-shaft, and passed through, or otherwise secured to, the head-block G, which constitutes its fulcrum. The head-block is pivoted in the housings, so as to turn freely on its axis. The lever E operates the plunger by being made to bear on the pin *d*, passed through the shaft D. The power end of the lever E is likewise forked, and straddles the guide-bar F. G′ is an adjustable connecting-bar, passed through a mortise in the top H of the frame, and also through the fork in the lever E. To the connecting-bar is fixed the small operating-lever I, which has its fulcrum in the guide-bar F. *c* is a rope attached to the upper end of the connecting-bar G′ and run over the pulley *d′*, by means of which the connecting-bar is lifted. A pin, *e′*, is passed through one of the holes in the connecting-bar above the lever.

The operation of the press is as follows: The press being arranged as shown in the drawing, with the plunger resting on the material L, power is applied to the small lever, and the press-lever is drawn down by means of the pin *e* resting on the lever. The pressure is continued until the long lever is drawn down as far as it will go. A pin is passed through one of the holes below the cross-plate E′ or E″, and the power is taken from the small lever, and the pin *e* is removed from the connecting-bar. The long lever is then drawn up by means of the rope *c*. The pin *d* is then passed through one of the holes in the shaft higher up, and immediately under the lever. The connecting-bar G′ is then lifted up as high as necessary, and the pin *e* is passed through one of the holes immediately above the lever E, and power is applied as before.

To put more material under the plunger, the pins should be removed from the shaft D, which must be lifted by the rope *a*, and secured, while the tobacco or apples are being placed in position to be pressed.

As shown in the drawing, the press is ar-

ranged to press out cider, the fruit being placed in a box on the bed-plate J, which is provided with a gutter, trough, &c.

To press tobacco, the bed J is removed, and the hogshead is set immediately on the floor A at K. The plunger C descends into the hogshead where the material is placed.

I claim—

The combination of the press-lever E, pivoted or fulcrumed in the head-block G, with the adjustable plunger-shaft D, plunger C, guide-bar F, adjustable connecting-bar G′, and operating-lever I, substantially as and for the purpose hereinbefore described and set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 22d day of March, 1875.

ANTHONY WILLIAMSON HARRINGTON.

Witnesses:

RICHARD W. HAYES,

JAMES POLK DUNCAN.