

P. McCLANAHAN.  
Apple Mill and Cider Press.

No. 213,672.

Patented Mar. 25, 1879.

Fig. 1.

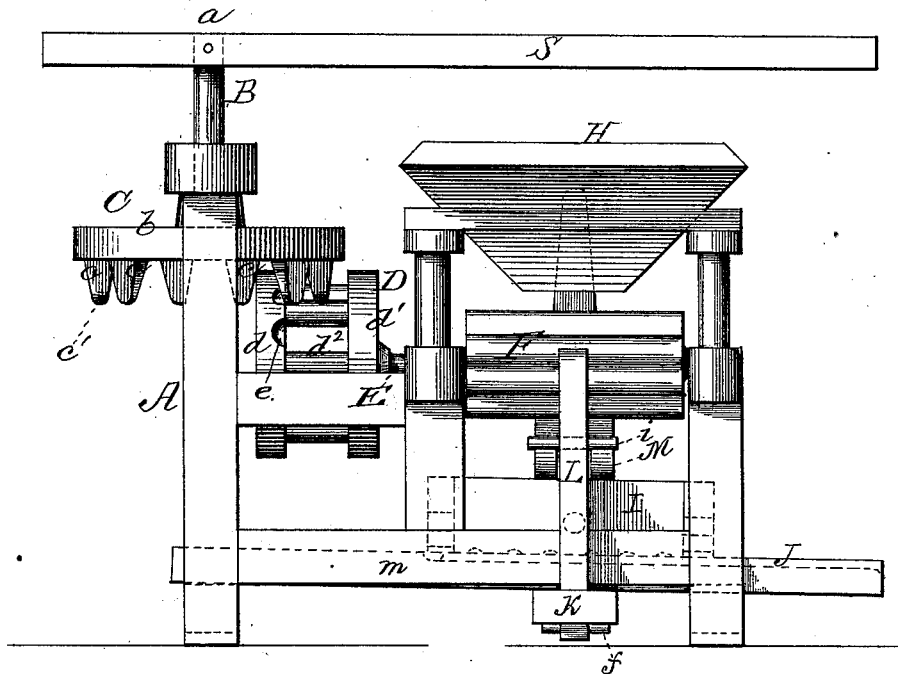
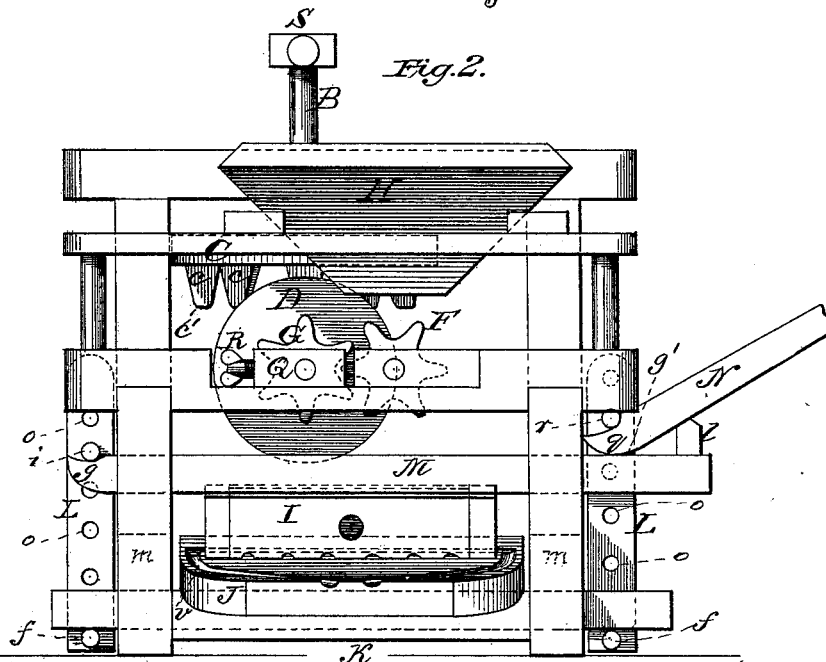


Fig. 2.



WITNESSES

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# UNITED STATES PATENT OFFICE

PINKNEY McCLANAHAN, OF SCOTT'S HILL, TENNESSEE.

## IMPROVEMENT IN APPLE-MILL AND CIDER-PRESS.

Specification forming part of Letters Patent No. **213,672**, dated March 25, 1879; application filed December 21, 1878.

*To all whom it may concern:*

Be it known that I, PINKNEY McCLANAHAN, of Scott's Hill, in the county of Henderson and State of Tennessee, have invented a new and valuable Improvement in Apple-Mills and Cider-Presses; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a side view of my invention, and Fig. 2 is an end view thereof.

This invention has relation to improvements in combined apple-mills and cider-presses; and the nature of the invention consists in certain arrangements and novel constructions of the devices used, as will be hereinafter more fully set forth.

In the annexed drawings, the letter A designates a strong upright frame having journaled in one end a vertical shaft, B, having at its upper end a seat, *a*, for a sweep, S, by means of which the mill, hereinafter described, is actuated. Upon this shaft is rigidly secured a horizontal master-wheel, C, composed of a strong disk, *b*, into which are socketed the cogs *c*. These are usually of wood, and are let into the disk *b* at right angles thereto. Their lower ends are rounded, as shown at *c*, for a purpose hereinafter more fully set forth. D indicates a driven gear, resembling in its construction a barrel or trundle-wheel, and composed of two spaced disks, *d* *d'*, usually of metal, and of trundles *d''*, connecting said disks. This wheel is engaged by the driving or master wheel C, and has in disk *d*, between the trundles *d''*, a recess, *e*, that allows the said cogs to engage the said trundles without interfering with the said disk *d*. This gear D is rigidly secured upon a longitudinal shaft, E, having its bearings in the frame A, and having keyed thereon a longitudinally-corrugated crushing-roller, F. This is composed of alternate ribs and depressions, and meshes into a similar roller, G, arranged on a level therewith, and journaled in the frame A. The rollers F G constitute the crushing devices,

and are arranged below a hopper, H, the throat of which is directly above the depression between the said rollers. The apples fall from the hopper directly in the space between the rollers, and, being crushed thereby, the pomace falls into a bottomless box, I, upon an inclined platform, J, supported by the bottom sills of the frame, and arranged under the rollers. Platform J has formed in it, near its edges, a sufficiently deep groove extending completely around it to catch the cider as it is expressed by the rollers and conduct it to a suitable receptacle. K indicates a strong beam extending across the frame under its bottom sills *m*, having in each end an upright, L, provided with spaced perforations *o*. These extend upward through slots in beam K, and are prevented from being drawn upward through the same by the pins *f*. M indicates a lever extending across the frame above the pomace-box, having at one end a fork, *g*, to receive one of the uprights L, and near the other end a slot, *g'*, through which the other upright L extends. The fork end of this lever is engaged under a pin, *i*, extending through one of the perforations *o*, and capable of being shifted from a higher to a lower one, or the reverse. The power end of this lever has an erect stud, *l*, that serves as a fulcrum to a second lever, N, of suitable length, and having its forked power end *q* engaged under an adjustable pin, *r*, extending through one of the perforations *i* of the other upright L. By bearing down upon lever N the lever M is caused to exercise great pressure upon the pomace in the box, and thereby express the cider therefrom, which runs through the gutters or grooves of the platform. The lever N is readily disconnected from the lever M, and the latter from the uprights L. These are also disconnectable from the beam K by drawing them through the slots in its ends.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a cider-mill, the intermeshing crushing-rollers F G, in combination with the hopper H, above said rollers, the inclined platform J, below the same, and provided with channels *v*, and the bottomless pomace-box I on said platform, substantially as specified.

2. The combination, with the roller F, rotating in fixed bearings, the roller G, rotating in the sliding bearings Q, the adjusting-screws R, and guides *i*, combined, arranged, and operating as set forth.

3. The combination, with a frame, A, having bottom sills *m*, a platform, J, on said sills, and a pomace-box, I, on said platform, of the beam K, extending across the frame, the perforated uprights L, the lever M, having fork *g*, slot *g'*, and stud *l*, the adjustable pins *i* *r*, and the lever N, substantially as specified.

4. The press apparatus for a cider-mill, con-

sisting of the beam K, its perforated end uprights L, the lever M, engaging one of said uprights and passing over the other, the fulcrum-stud *l*, and lever N, combined, arranged, and operating as set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

PINKNEY MCCLANAHAN.

Witnesses:

HOUSTON ROBERTS,  
W. P. BRAY.