2 Sheets—Sheet 1.

H. L. & S. M. BROWN.

CIDER-PRESS.

No. 181,243. Patented Aug. 22, 1876.

Fig. 1.

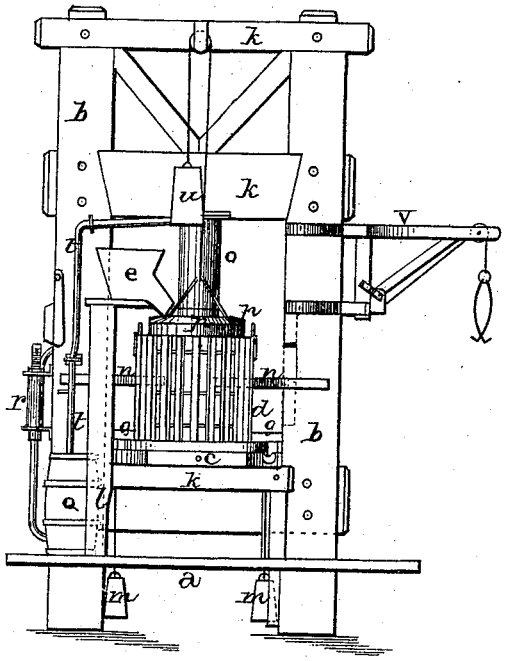
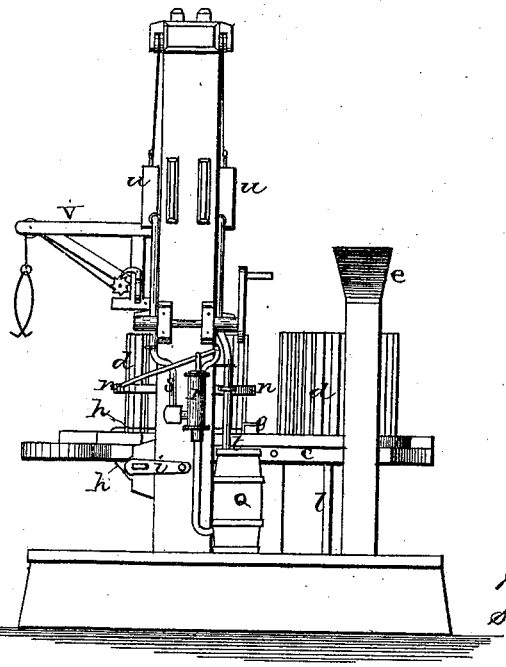


Fig. 2.



WITNESSES:

Wm. Garner

F. M. Burnham.

INVENTOR:

H. L. Brown

S. M. Brown

per

F. A. Lehmann, atty

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

2 Sheets—Sheet 2.

H. L. & S. M. BROWN.

CIDER-PRESS.

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Fig. 3.

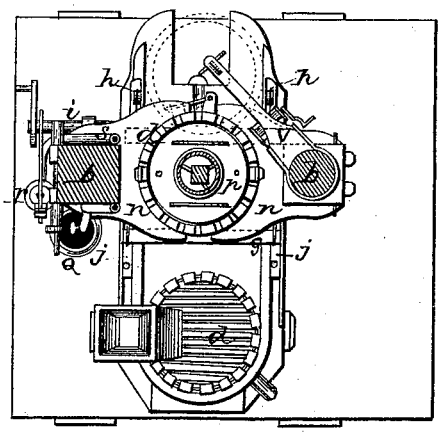


Fig. 4.

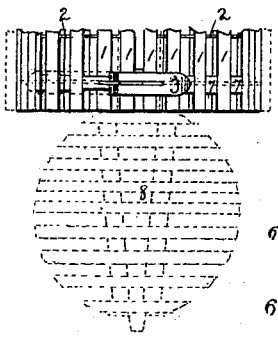


Fig. 5.

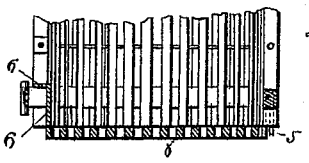


Fig. 6.

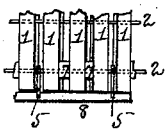
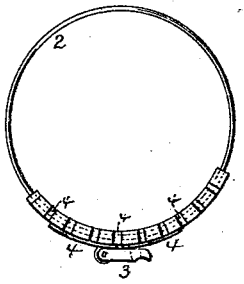


Fig. 7.



WITNESSES.

J. Wm. Garner,

F. M. Burnham.

INVENTOR.

H. L. Brown

S. M. Brown

per

F. A. Lehmann, Atty

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

HIRAM L. BROWN AND SILAS M. BROWN, OF VISTULA, INDIANA.

IMPROVEMENT IN CIDER-PRESSES.

Specification forming part of Letters Patent No. **181,243**, dated August 22, 1876; application filed July 22, 1876.

To all whom it may concern:

Be it known that we, H. L. BROWN and S. M. BROWN, of Vistula, in the county of Elkhart and State of Indiana, have invented certain new and useful Improvements in Cider-Presses; and we 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.

Our invention relates to an improvement in wine and cider presses; and it consists in the arrangement and combination of parts, that will be more fully described hereinafter, whereby a powerful and effective press is produced.

Figure 1 is a front elevation. Fig. 2 is a side elevation. Figs. 3, 4, 5, 6, 7 are detail views of the same.

a represents a suitable base, from which rise the two standards *b*, which are suitably connected together by the three cross-timbers *k*, two of which cross-timbers have their ends recessed into the vertical timbers *b*, so as to enable them to stand the great pressure that is brought to bear upon them. These cross-timbers are otherwise braced or supported, as may be found necessary. Supported upon the lower cross-timber and the frame *l* is a platform, *c*, upon which the racks *d* are placed, the platform being made long enough to hold two or more racks, and corrugated in any suitable manner, so as to conduct the juice to the vessels placed to receive them. On the top of frame *l* is placed a suitable grinder, *e*, from which the apples fall into the rack *d*, that is placed in the first position. Should there not be pomace enough to fill the rack, blocks should be placed in it to a suitable height before it is drawn under the press. In order to move these racks along the platform without raising them, a bar, *g*, which slides upon the top of the guard around the edge of the platform, is used, and to the ends of which are secured the ropes or chains *h*. The other ends of the ropes or chains are secured to the windlass *i*, by the operation of which the rack can be moved from the first position to the second under the press. Sliding on the top of the platform, on each side, is a block, *j*, each of which is attached to a weight, *m*, and is provided with a hook to catch the bar *g* as it is drawn forward. As soon as the bar is released from the windlass, these sliding blocks draw the bar backward, so as to be ready to again be used. Pivoted to each of the uprights *b* is a catch, *n*, which have their ends so shaped as to fit around the sides of the rack, and prevent it from being moved in any direction. Immediately above the rack, while held in this second position, is the cylinder *o* and plunger or piston *p* of a hydraulic press. The water is forced from the barrel or other receptacle *q* by the force-pump *r*, through the pipe *s*, into the cylinder, the piston thereby being forced downward upon the pomace. As soon as the juice has been forced out of the pomace, a stop-cock is opened in the discharge-pipe *t*, when the weights *u*, which are fastened to the piston, draw it upward and force the water from the cylinder back into the barrel. The catches *n* are then raised upward, the windlass *i* and bar *g* again used, and the rack containing the expressed pomace is then moved toward the end of the platform beyond the standards, into the third position. Attached to one of the standards *b* is a crane, *v*, which can be freely swung around from side to side. This crane is then moved around, the hooks on the end of the rope are fastened to the rack, the rack raised upward, then swung out over a wagon or cart, and the pressed pomace emptied into it. While this rack has been operated upon, another one has been filled, and is ready to at once be moved forward under the press. This crane is also used for loading the barrels of cider into the wagons.

The racks are composed of a series of slats, 1, which are secured together by two or more iron or steel rods, 2, which allow the rack to open on one side when the latches 3 are unfastened. Between the slats and over the rods are placed wooden blocks 7, beveled in such a manner as to evenly hold the slats apart. The metal blocks 4, to which the latches 3 and projections over which they catch are secured, are also formed like these blocks, as shown, and both hold the slats apart, and form a solid fastening. The bottom 8 of the racks is also formed of slats, as shown, and has two hooks, 5, formed on one side, to catch over the bottom rod 2, and a catch, 6, on the opposite side,

which catches over the top of the lower latch. When the rack is opened, the side on which the catch 6 is placed at once falls, while the hooks 5 hold it suspended from the side of the rack.

The crane *v* may be attached to the standards *b*, as here shown, or in any other way that may be preferred.

We claim—

1. The combination of the rack, a bar, *g*, ropes or chains *h*, and windlass *i* with the blocks *j* and weights *m*, substantially as set forth.

2. The catches *n*, pivoted to the uprights *b* so as to move vertically, and adapted to hold the racks in position, substantially as specified.

3. The rack *d*, formed of slats 1, rods 2, latches 3, and blocks 7, the rack being made to open on one side, substantially as specified.

4. The bottom 8, hooks 5, and catch 6, in combination with the rack *d*, substantially as set forth.

In testimony that we claim the foregoing we have hereunto set our hands this 19th day of July, 1876.

HIRAM LEWIS BROWN.
SILAS MELVIAN BROWN.

Witnesses:
ISAAC WILLIAMSON,
E. B. MYERS.