

W. RICE.
Cider-Mills.

No. 139,615.

Patented June 3, 1873.

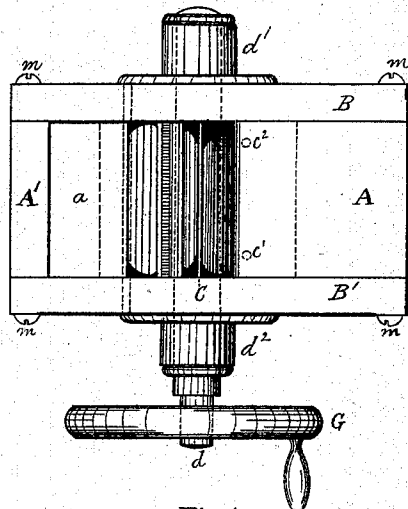


Fig. 1.

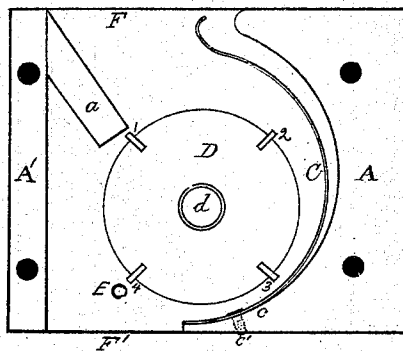


Fig. 2.

WITNESSES:

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WILLIAM RICE, OF FITCHBURG, MASSACHUSETTS.

IMPROVEMENT IN CIDER-MILLS.

Specification forming part of Letters Patent No. **139,615**, dated June 3, 1873; application filed April 19, 1873.

To all whom it may concern:

Be it known that I, WILLIAM RICE, of Fitchburg, in the county of Worcester and Commonwealth of Massachusetts, have invented certain new and useful Improvements in Cider-Mills; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings which form a part of this specification, and in which—

Figure 1 represents a top or plan view of the mill, and Fig. 2 represents a lateral or side view of that portion exposed by the removal of the hand-wheel and contiguous side piece B'.

To enable those skilled in the art to which my invention belongs to make and use the same, I will proceed to describe it in detail.

In the drawings, the parts marked A A' represent the end pieces of my mill, the former of which pieces, A, is a thick block having its inner surface corresponding exactly in form to the scroll apple-pressing spring C, which, if forced back, would fit snugly to it. Scroll apple-pressing spring C is secured to part *c* of end piece A by two screws, *c*¹ *c*², or more, if required, as shown in the drawing, Fig. 2. The end pieces A A' have side pieces B B', fitted to which are metal journal-bearings *d*¹ *d*² for the shaft *d* of the rotating, grinding, or scraping wheel D, which is operated by a hand-wheel, G. The combination of end pieces A A' and side pieces B B', in the manner shown in Fig. 1, forms a box-like mechanism, having an aperture, F, in the top for the reception of whatever is to be ground, and another, F', in the bottom to let out the falling pomace. Attached to the top and on the inner side of end piece A is a slant-piece, *a*, to prevent the fruit from falling elsewhere than between the scroll pressing spring C, and rotating, grinding, or crushing wheel D, provided with scraping, crushing, or mashing blades 1 2 3 4 on its outer surface, which vary in number according to the diameter of said wheel. A guard-pin, E, is placed in such position with reference to the crushing wheel or roll

D as that when the mill is in operation the apple-parings will catch or twine around said guard, thereby forming a cushion, by which means the pomace is scraped off the blades or mashers, and falls through the aperture F' into a receptacle placed below the mill for that purpose. The ends of the guard-pins E are supported in the side pieces B B' of the mill, and the apple-skins, catching and winding thereon, form, as before explained, a cushion-like scraper, by reason of which the pomace is cleaned from the wheel and scraping or mashing blades in a most perfect and effectual manner.

The knives or mashing blades, as well as the pressing-spring C, being made of steel, while the wheel D and parts A A' and B B' are made of wood, the cider produced is clear and is not colored, as it is when made in cast-iron mills.

The metal bearings *d*¹ *d*² are screwed or otherwise fastened to the sides B B', which latter pieces are fastened to the end pieces A A' by screws *m*.

Power being applied to the hand-wheel G, whatever is intended to be ground is carried by the motion of rotating wheel D down between it and scroll apple-pressing spring C, when the fruit is crushed or ground up by the combined action of the blades 1 2 3 4, as well as by the surface of the wheel itself, the pomace being scraped off by the blades 1 2 3 4, in the manner before explained.

By the use of my improved mill cider may be made by hand at any time of the year in large or small quantities, and, as medical authority has pronounced it a remedial agent, especially in spring complaints, the public cannot fail to appreciate the value and utility of my invention.

It will be understood that the wheel D can be driven by power, if preferred; also, that a suitable hopper is to be arranged over the opening F, into which the apples, other fruit, or vegetables are to be placed preparatory to being fed into the mill.

Having described my improvements in cider-mills, what I claim therein as new and

of my invention, and desire to secure by Letters Patent, is—

In combination with the wheel D, provided with blades or mashers 1 2 3 4, and the guard-pin E, the concave scroll spring-presser C, extending partly around said wheel and secured at its lower end to the

end piece A in front of a correspondingly-curved bed formed in said end piece for its reception, as shown and described.

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Witnesses:

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