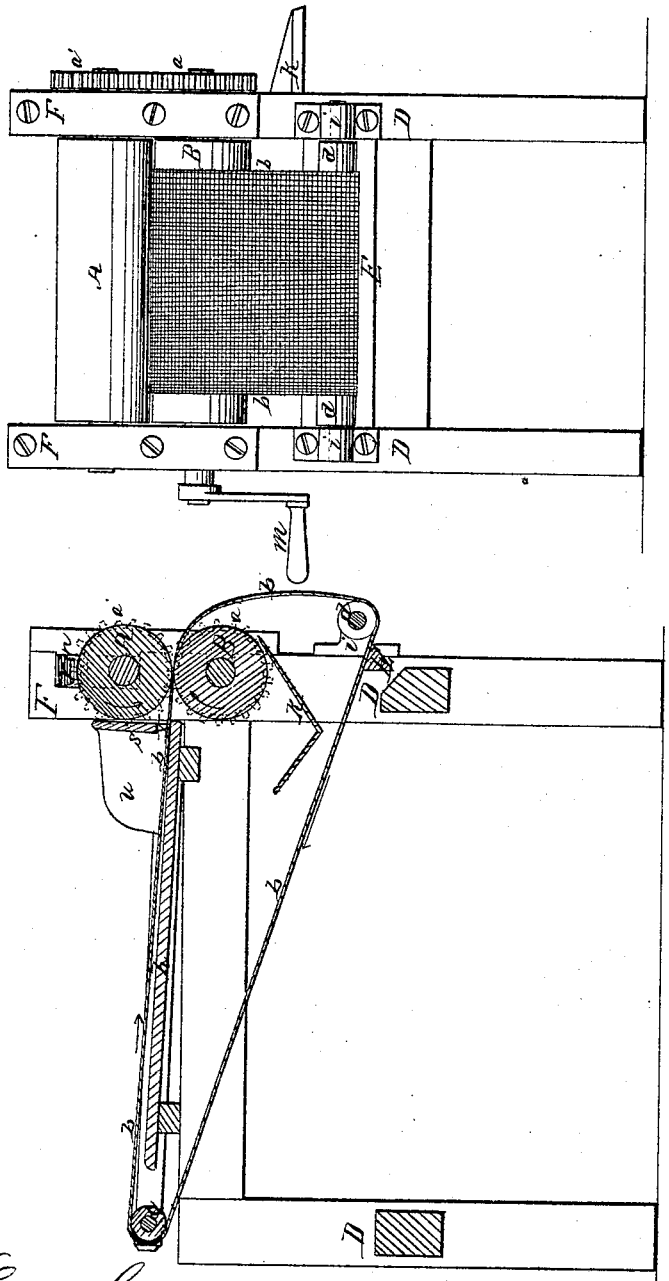
J. Redlein,

Cider and Wine Press.

No 52,203. Patented Jan. 23, 1866.



Witnesses.
J. W. Coomb
A. Lellers

Inventor,
John Redlein.

UNITED STATES PATENT OFFICE.

JOHN REDLEIN, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN CIDER-MILLS.

Specification forming part of Letters Patent No. **52,203**, dated January 23, 1866.

To all whom it may concern:

Be it known that I, JOHN REDLEIN, of the city of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Presses for Pressing Apples, Grapes, and other Like Substances; 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, making a part of this specification, in which—

Figure 1 is a longitudinal view of the same. Fig. 2 is an end view of the same.

Similar letters of reference indicate similar parts in both figures.

This press belongs to that class in which the substance to be pressed is passed between pressure-rollers, and is designed more especially for expressing the juices from grapes or from the pomace of apples, for making wine or cider.

It consists in a three-sided scraper so arranged and applied in relation to the apron by which the fruit is carried between the rollers that when one edge becomes worn by use another or sharp edge can be brought in contact with the apron by turning the scraper.

To enable those skilled in the art to understand the construction and operation of my invention, I will proceed to describe it with reference to the drawings.

D represents the frame of the machine, and in the upper ends of the posts F thereof are pivoted two pressure-rollers, A and B. The lower roller is rotated by means of a crank, *m*, and communicates motion to the upper one through the agency of the spur-wheels *a* and *a'* attached to the shafts of the rollers. These pressure-rollers may be of wood or metal, and may, if desired, be covered with india-rubber to increase their squeezing or pressing action. A slot, *n*, is formed in the upper end of each of the posts F, immediately over the bearings of the upper roller A. A spiral spring, *r*, is situated in each of these slots and forces a small sliding block down upon each end of the shaft of the said upper roller, so as to press it downward, and yet allow it to rise to a certain extent, when necessary, in the operation of the press.

Below the rollers, and pivoted in a suitable support or hanger, *i*, which projects out from the forward end of the frame D, is a smaller roller, *d*, and a smaller roller, *c*, is pivoted upon the rearmost end of the said frame. An endless apron, *b*, of cloth or other suitable material, passes over the rollers *c* and *d*, and also between the pressure-rollers. Placed upon the top of the frame D is an inclined board or table, *h*, which, being situated underneath that portion of the apron *b* which carries the pomace, not only supports the apron with the weight of the pomace upon it, but conveys the juices that pass through the apron from the same into the spout *k*, whence it passes out at the side of the press into any suitable vessel placed to receive it. Just behind the upper pressure-roller, A, is a sort of hopper, *u*, the front side, *s*, of which does not reach quite down to the apron, thus leaving a space, *x*, through which the apron carries the pomace to the rollers, the height of the opening *x* regulating the thickness of the layer of pomace upon the apron.

Somewhat below and behind the roller *d* is a scraper, E, which is simply a wooden bar triangular in its cross-section, and pivoted in suitable bearings secured to the posts F at the front end of the frame D. This scraper is so placed with regard to the apron as to constantly press one of its edges against the lower sides thereof, behind the roller *d*, the scraping-edge being somewhat higher than the lower side of the said roller *d*. By this means the scraper not only removes the pomace which adheres to the apron after the operation of pressing has been performed, but also causes a tension of the apron.

It will be noticed that the endless apron takes a much shorter turn around the small roller *d* than it would if passed around the larger roller B without the employment of the said small roller. This shortening of the curve described by the apron as it passes over the roller *d* causes most of the adhering pomace or other refuse to crack and peel off, the balance being removed by the scraper, as aforesaid.

The scraper E being three sided, as mentioned, when one edge becomes worn it can be turned around so as to bring another edge in contact with the apron.

Such being the construction of the inven-

tion, its operation is as follows: The grapes, pomace, or any other suitable substance which it is desired to press is placed upon the apron *b*, over the table *h*, and in rear of the hopper *u*. The crank *m* is turned in the direction shown by the arrow in Fig. 1. This operates the pressure-rollers, which act upon the apron to carry it around. This continuous forward movement of the upper portion of the apron conveys the substance to be pressed underneath the front side, *s*, of the hopper *u*, which spreads it into a layer of suitable thickness. It then passes between the pressure-rollers, which express the juices therefrom, after which it is scraped from the apron as it moves around by the scraping-edge of the angular scraper E. The expressed juice flows downward into the spout *k*, from which it passes out at the side of the press, as herebefore mentioned. If for any reason an unusual quantity of pomade or any hard extraneous substance should be brought between the pressure-rollers, the spring *r* will allow the upper roller to rise and adapt itself thereto.

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

The scraper E, made three-sided, and applied in such a way to the endless apron *b* as to enable the position of its edges to be changed, substantially as set forth, for the purpose specified.

JOHN REDLEIN.

Witnesses:
HENRY T. BROWN,
J. W. COOMBS.