J. L. BARNES.
Cider-Mill.

No. 221,386. Patented Nov. 11, 1879.

Fig. 1.

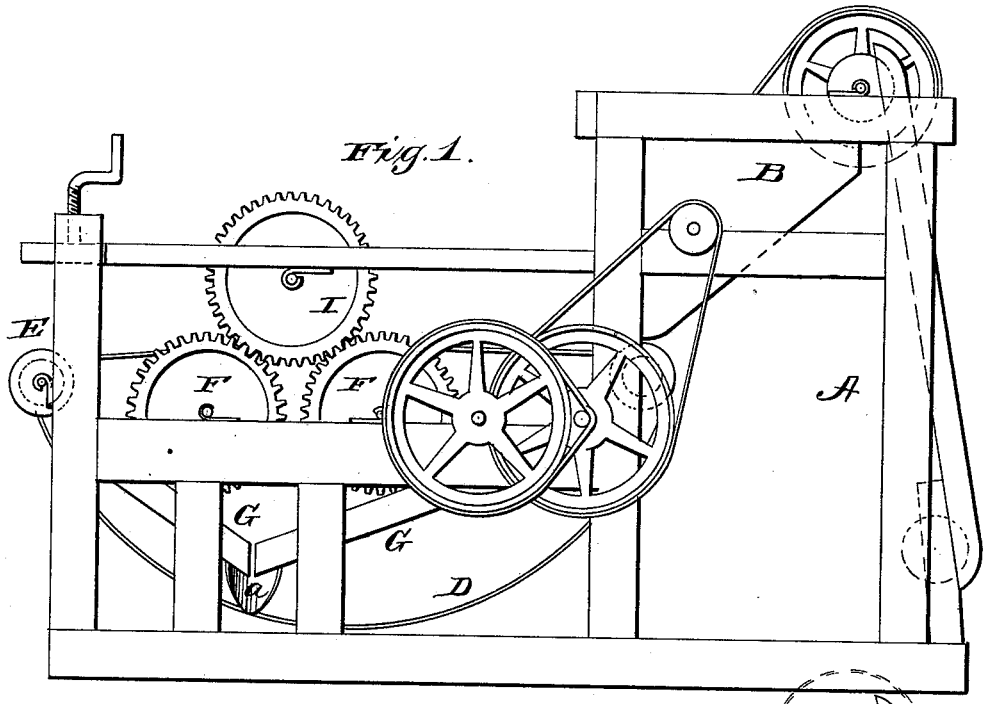


Fig. 2.

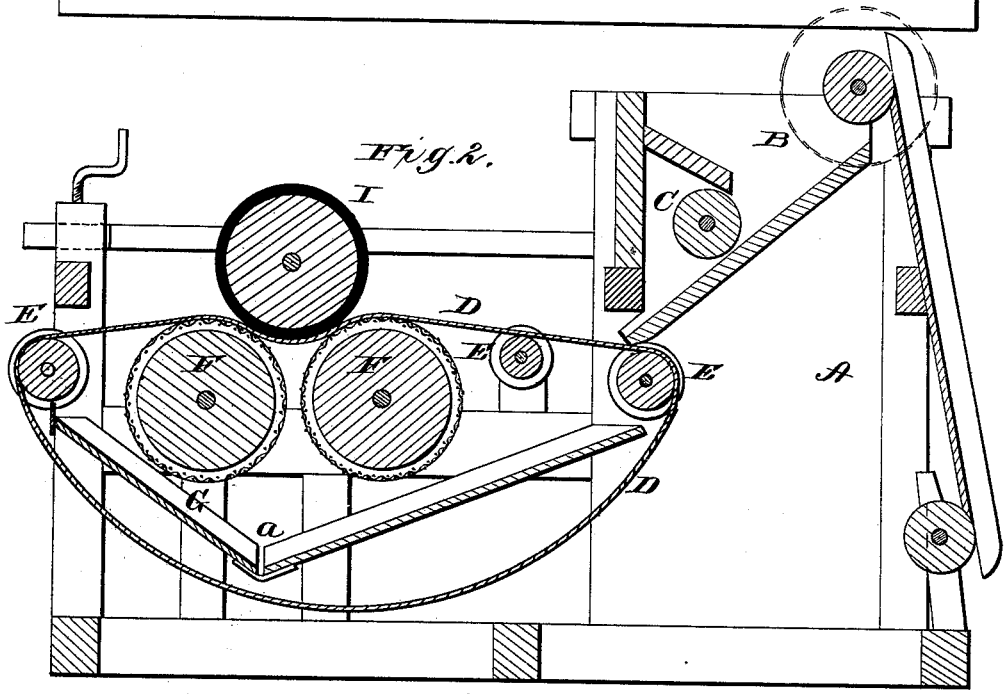
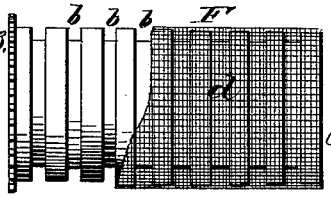


Fig. 3.



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JOHN L. BARNES, OF WARSAW, INDIANA.

IMPROVEMENT IN CIDER-MILLS.

Specification forming part of Letters Patent No. **221,386**, dated November 11, 1879; application filed April 15, 1879.

To all whom it may concern:

Be it known that I, JOHN L. BARNES, of Warsaw, in the county of Kosciusko, and in the State of Indiana, have invented certain new and useful Improvements in Cider-Mills; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in the construction and arrangement of a cider-mill, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawings, in which—

Figure 1 is a side elevation of my cider-mill. Fig. 2 is a longitudinal vertical section of the same. Fig. 3 is a side view of one of the rollers.

A represents the frame of my cider-mill, provided with a hopper, B, at one end for the introduction of the pomace. In this hopper is a feeding-roller, C, which carries down the pomace to an endless apron or cloth, D, which passes around rollers E, as shown in Fig. 2, and passes over two rollers, F F. Below these rollers, and within the cloth or apron, are inclines G G, which lead to a spout, *a*, as shown. Above the two rollers F F, and in contact with the apron on top of them, is a third roller, I, which is covered with rubber.

The two lower rollers, F, are constructed as shown in Fig. 3, each roller being formed with a series of circumferential grooves, *b*, at suitable distances apart—say about half an inch, more or less. The roller is then covered with wire-cloth *d*.

The various rollers are connected and run by gearing or belts, or both, in any suitable or convenient manner.

By using the three rollers F F and I the pomace is pressed twice as it passes through the machine, as the upper rubber-covered roller, I, runs upon both the under ones.

The cider is pressed by the upper roller through the cloth or canvas apron D, and also through the wire-cloth screens *d*, into the grooves *b* on the rollers F F, and then runs around said rollers, and is discharged on the inclines G, and by them conveyed to the spout *a*.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a cider-mill, a roller, F, provided with a series of circumferential grooves, *b*, and inclosed by wire-cloth *d*, substantially as herein set forth.

2. The combination of the rubber-covered roller I, the endless cloth or apron D, and the rollers F F, provided with grooves *b* and wire-cloth *d*, substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 8th day of February, 1879.

JOHN L. BARNES.

Witnesses:
J. W. KILLINGER,
G. M. THOMAS.