

T. Applegate, Cider Press.

N^o 59,807.

Patented Nov. 20, 1866.

Fig. 1.

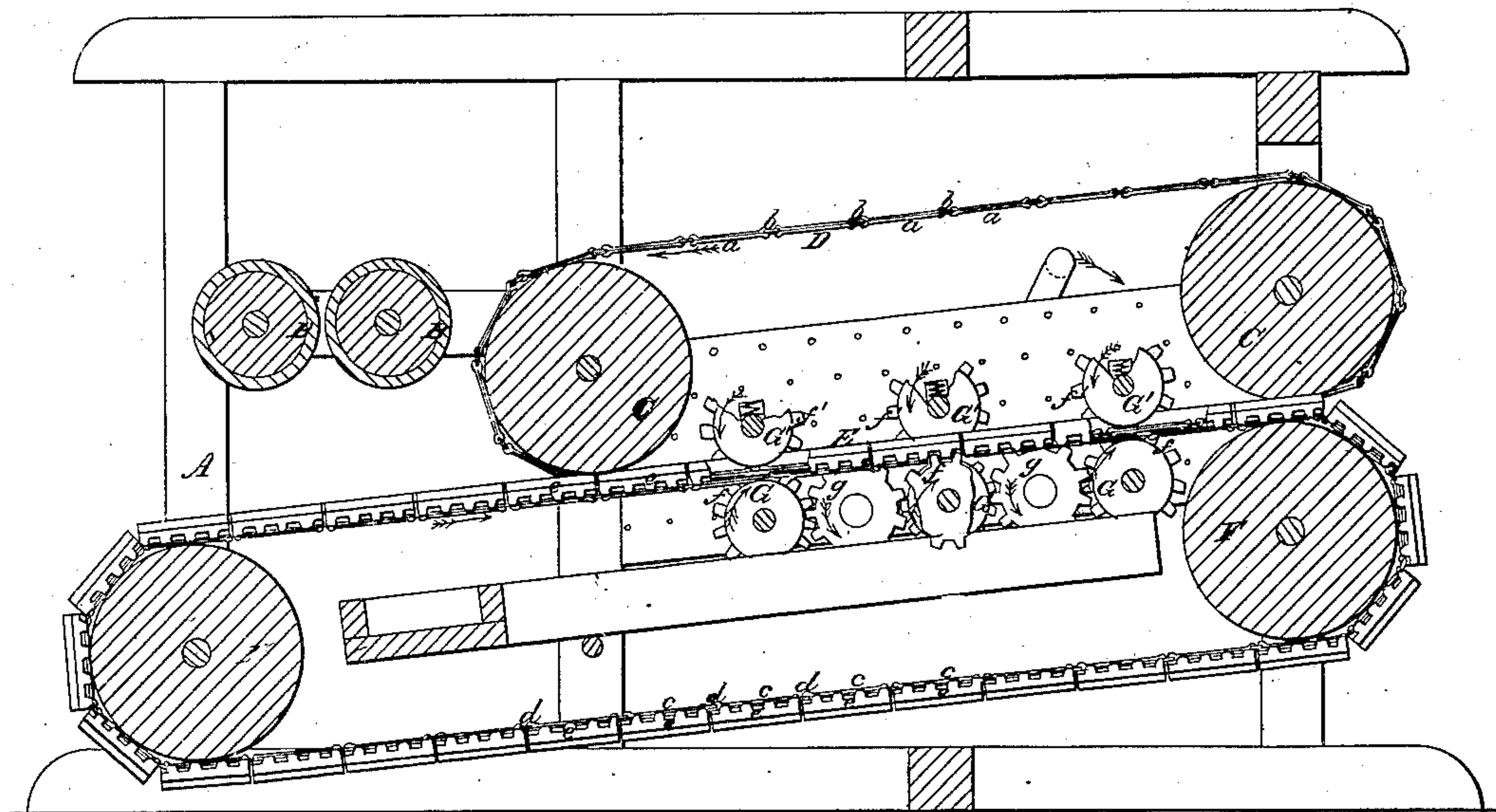
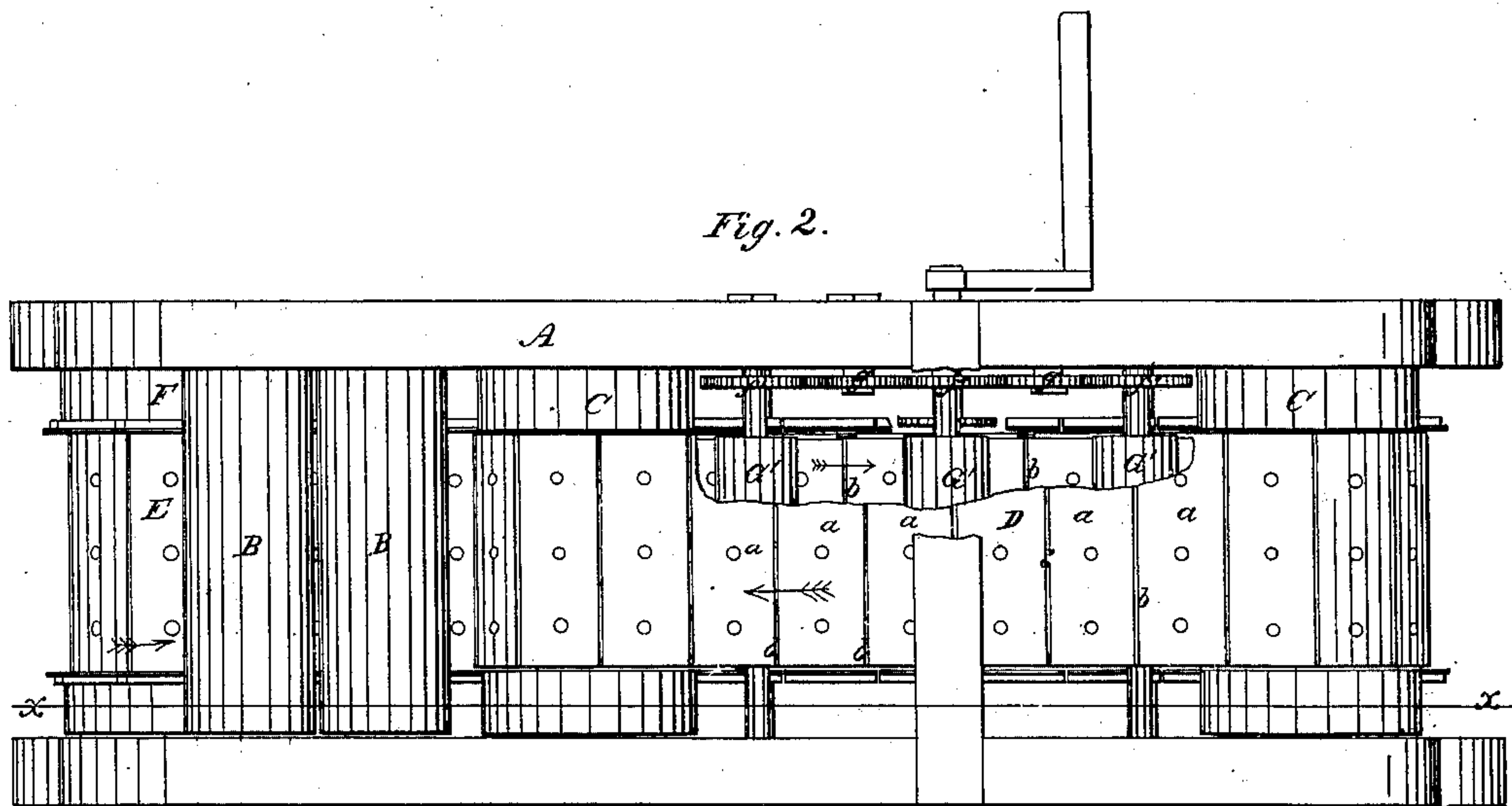


Fig. 2.



Witnesses

W. B. Livingston
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IMPROVEMENT IN CIDER MILLS.

THOMAS APPELGET, OF PRINCETON, NEW JERSEY.

Letters Patent No. 59,807, dated November 20, 1866.

SPECIFICATION.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, THOMAS APPELGET, of Princeton, in the county of Mercer, and State of New Jersey, have invented a new and improved Cider Press, and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side sectional view of my invention taken in the line *x x*, fig. 2.

Figure 2, a plan or top view of the same.

Similar letters of reference indicate like parts.

This invention relates to a new and improved cider press, of that class in which endless pressure belts are employed, and it consists in having the belts constructed of plates of metal, or other rigid material, connected together by hinges and operated by gears and racks attached to one of the belts, as hereinafter fully shown and described, whereby the ground apples are subjected to a degree of pressure sufficient to express all the juice from them. The canvas belts hitherto employed for this purpose have proved insufficient on account of their flexibility and the difficulty in operating them by tension only—difficulties which, it is believed, are fully obviated by my invention.

A represents a framing which may be constructed in any proper manner to support the working parts, and B B are two pressure rollers placed in said framing side by side, and designed for crushing the apples. Any crushing or grinding apparatus, however, may be employed for this purpose.

C C are two rollers placed in the framing, A, and having an endless belt, D, placed upon them. This belt, D, is composed of plates, *a*, of metal or other rigid material, perforated, and connected together by hinges or joints, *b*. This belt, D, has a slightly inclined position, as shown clearly in fig. 1, and the pressure rollers, B B, are at the outer side of its lower or most depressed roller, C.

E is an endless belt which works over rollers, F F, in the framing, A, and has a parallel position with the belt, D. This belt is constructed like the belt D, to wit: of perforated metal or other rigid plates, *c*, connected by hinges, *d*. The plates, *c*, however, have racks, *e*, attached to their ends, into which gears, *f*, work; said gears being at the ends of the shafts of rollers, G, over which the lower part of the belt, E, passes. Rollers, G¹, bear upon the lower part of the upper belt, D, and the shafts of the rollers, G¹, have gears, *f'*, at their ends, which mesh into the gears, *f*, of the lower rollers, G, and the gears, *f*, of the lower rollers, G, are connected by intermediate gears, *g*.

By this arrangement it will be seen that if power be applied to one of the lower rollers, G, the upper and lower rollers, G G¹, will all be rotated and the belts D E moved, the arrows in fig. 1 indicating the direction of the rotation of the rollers and the movement of the belts.

The lower belt, E, is longer than the upper one, D, and extends underneath the pressure rollers, B B, so as to catch or receive the crushed apples from the rollers, B B, and the crushed or ground apples are carried between the belts, D E, and subjected to a pressure sufficient to express all the juice therefrom—the latter passing through the perforations in the plates and falling into a receptacle or trough, H, underneath E, and the pomace discharged from between the belts as the latter pass around their most elevated rollers.

The canvas belts hitherto employed have proved inefficient on account of having no positive driving mechanism, the tension of the belts on their rollers alone being depended upon for that purpose, and the canvas is liable to stretch and become loose on their rollers, causing a great deal of trouble and embarrassment; besides it is impossible, owing to the flexibility of canvas, to subject the ground apples to the requisite degree of pressure.

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

The machine constructed to operate substantially as described, and in the manner set forth, to press the juice from ground fruit by means of passing the pomace between the endless belts, which are geared to work together, and have pressure rollers above and below that part of the belts which have the pomace between them.

THOMAS APPELGET.

Witnesses:

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C. O. HUDNUT.