(No Model.)

S. EPPLEY.

ROLLER CIDER PRESS.

No. 371,131. Patented Oct. 4, 1887.

Fig. 1.

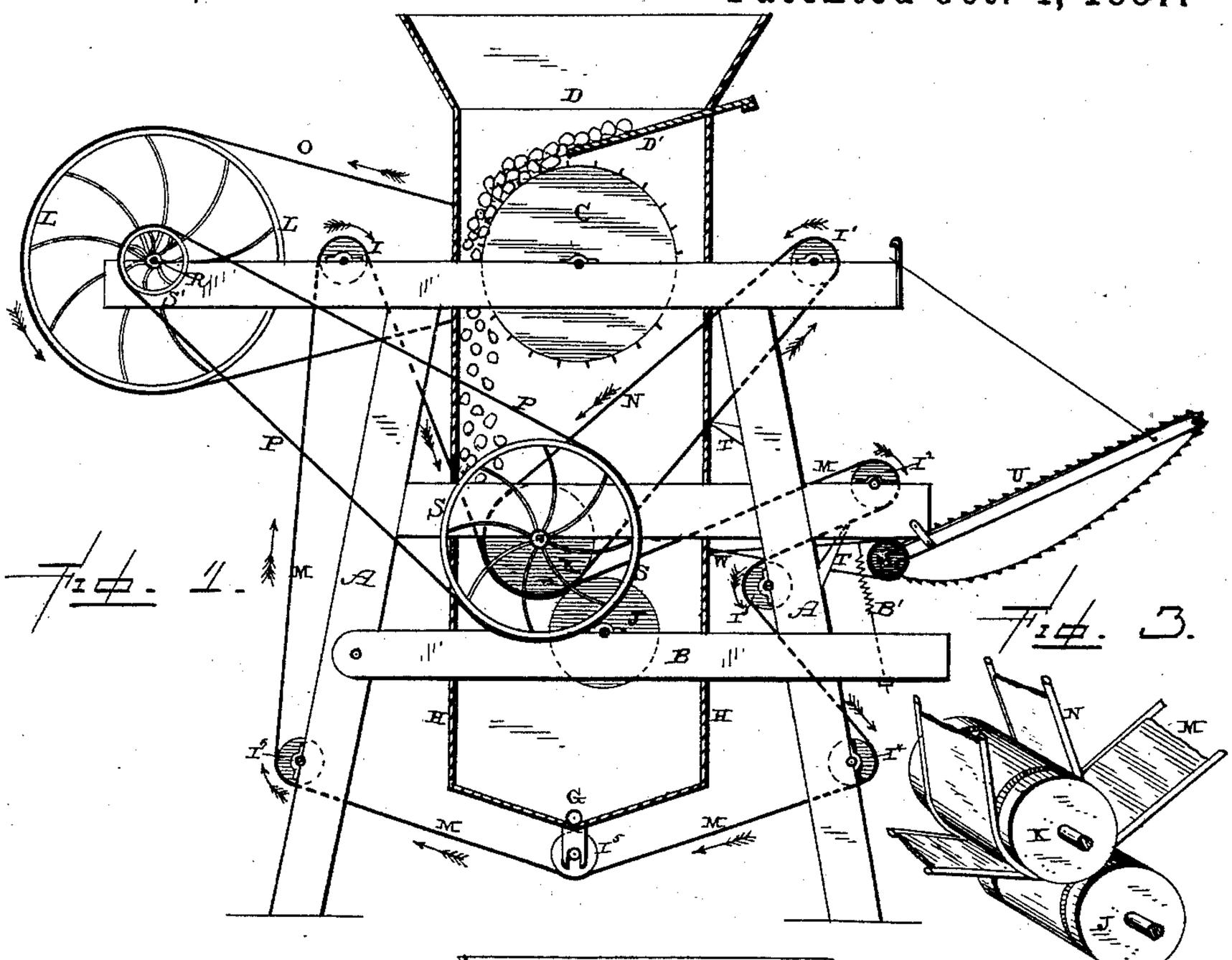
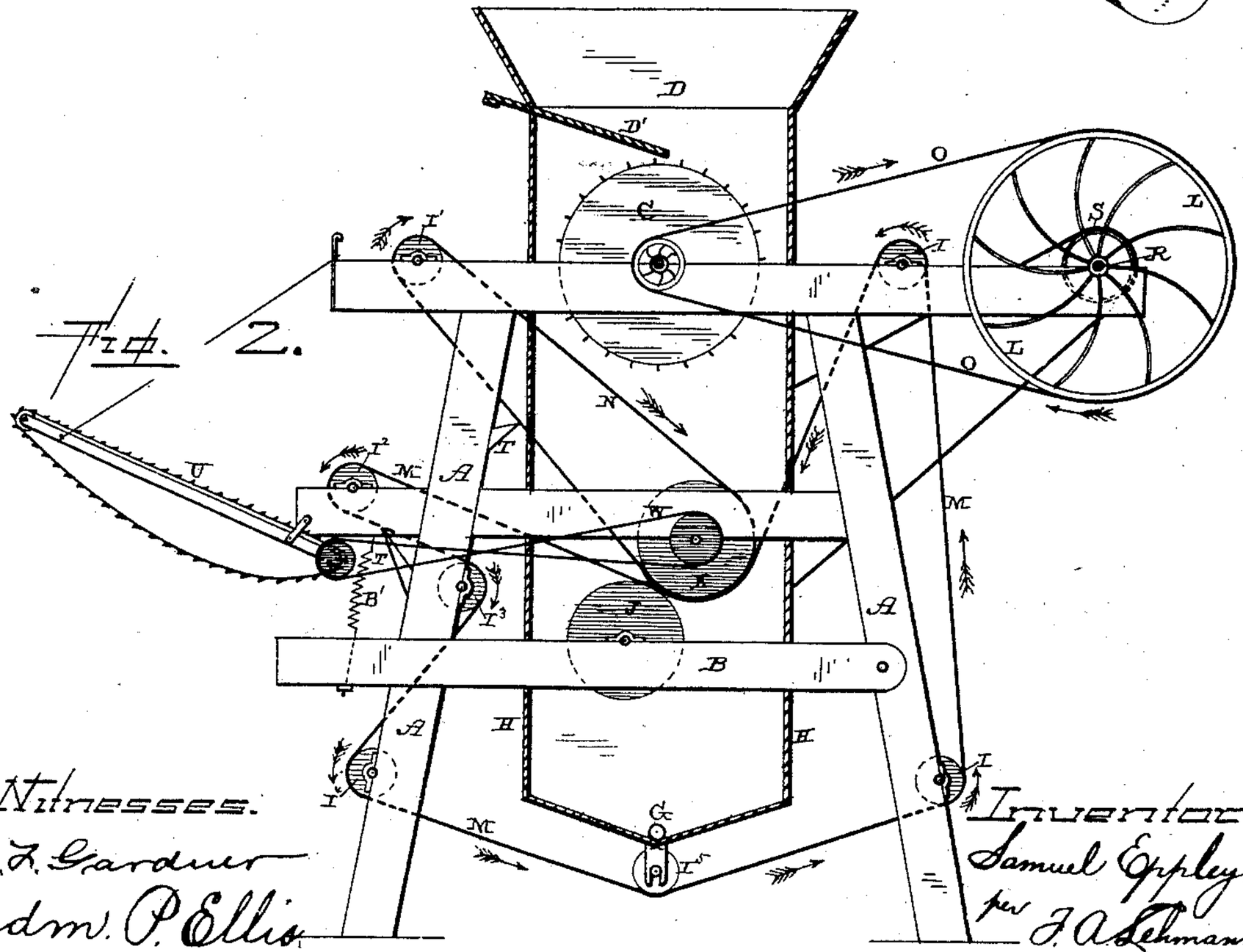


Fig. 3.

Fig. 2.



Witnesses.
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SAMUEL EPPLEY, OF UNION BRIDGE, MARYLAND.

ROLLER CIDER-PRESS.

SPECIFICATION forming part of Letters Patent No. 371,131, dated October 4, 1887.

Application filed June 14, 1887. Serial No. 241,250. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL EPPLEY, of Union Bridge, in the county of Carroll and State of Maryland, have invented certain new and useful Improvements in Roller Cider-Presses; and I 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.

My invention relates to an improvement in roller cider-mills, the object being to simplify the construction and improve the effectiveness of the machine; and it consists in the combination of the frame-work, a suitable casing placed therein and inclosing the grinding-cylinder and pressure-rolls, and having secured to its lower end a roller which bears upon one of the endless belts, the guiding-pulleys for the two endless belts, spring-actuated bars for regulating the pressure of the rollers, between which the pomace is passed, and the conveyer, all of which will be more fully described hereinafter, and pointed out in the claim.

Figure 1 is a side elevation, partly in section, of my improvement. Fig. 2 is a side elevation, partly in section, of the opposite side of the machine. Fig. 3 is a detail perspective view of the two pressure-rollers and the webs.

Similar letters of reference indicate corresponding parts in all the figures.

Referring to the drawings by letter, A represents the supporting-frame; D, the hopper, having feed-board D'; and C, the grinding-cylinder, journaled in bearings on the top bars of the frame. The hopper D is formed in the upper end of the frame or casing H, which extends vertically between the side timbers of the frame-work and incloses the grinding-cylinder and pressure-rolls and carries upon its lower end a roller, I^5, which bears upon the top of the endless belt M. The cylinder C is driven by a belt, O, from the pulley L on the driving-shaft R. In the frame below the grinding-cylinder is journaled the pressure-roller K, the shaft of which carries a pulley, S, from which a belt, P, passes to the pulley S' on the end of the driving-shaft R opposite the pulley L. The other pressure-roller, J, is journaled in the bars B, which are pivoted to the frame, as shown, and to their free ends is connected the spring B', the other end of which spring is connected to the frame, so that the roller J will be held in contact with the roller K, but will be free to yield to obstructions passing between the said rollers. The rollers J K are formed of rubber, and are provided with annular grooves at their ends, for a purpose hereinafter described. By forming the rollers of rubber they permit obstructions to pass between them without being separated, as in the case of wood or iron rollers, and thereby preventing any of the ground apples passing through without being pressed, and also preventing the cider from running over the ends of the rollers into the journals thereof.

On the frame A and the casing H are journaled the pulleys I I' I^2 I^3 I^4 I^5 I^6. The bearings of I, I', I^2, I^4, and I^6 are adjustable, so that the tension of the webs, presently described, can be regulated. Around the pulley I' and the pressure-roller K passes the short endless web N, and around the pulleys I I^2 I^3 I^4 I^5 I^6 and under the pressure-roller K and over the roller J passes the long endless web M. Both of the webs M N are provided with enlargements or cords on their edges, which fit in the groove of the pressure-rollers, by means of which they are kept in their proper position on the rollers.

U is an elevator or conveyer for receiving the pomace from the endless web M and delivering it at a suitable distance from the machine into a receptacle or onto the ground. The elevator is driven by the belt W, passing around a pulley on the end of one of the conveyer-rollers and a pulley on the end of the pressure-roller K. The pressure-rollers are inclosed by the casing H, the lower part of which forms a cider-receptacle, G. Upon the frame A are arranged scrapers T, for removing the pomace from the endless webs.

The operation is as follows: The apples, being fed into the hopper D, are ground and fall down between the endless webs M N, and in the passage of the webs around and between the pressure-rollers J K the cider is extracted, the pomace being carried by the endless web

M and delivered to the elevator or conveyer U, which will convey it away from the machine. It will be noticed that a portion of the cider will be extracted by the pressure of the two webs against the pressure-roller K before they pass between the said pressure-rollers, whereby the cider and pomace will be prevented from oozing out at the sides of the webs and the cider effectually extracted.

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

In a cider-mill, the combination of the frame-work, the casing H, placed therein and inclosing the grinding-cylinder and the pressure-rolls, and having secured to its lower end the roller I^5, the endless belts M N, and the guiding-pulleys therefor, the spring-actuated bars B, upon which the roller J is journaled, and the conveyer U, substantially as shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

SAMUEL EPPLEY.

Witnesses:
JOHN H. UTZ,
WILLIAM H. MORNINGSTAR.