

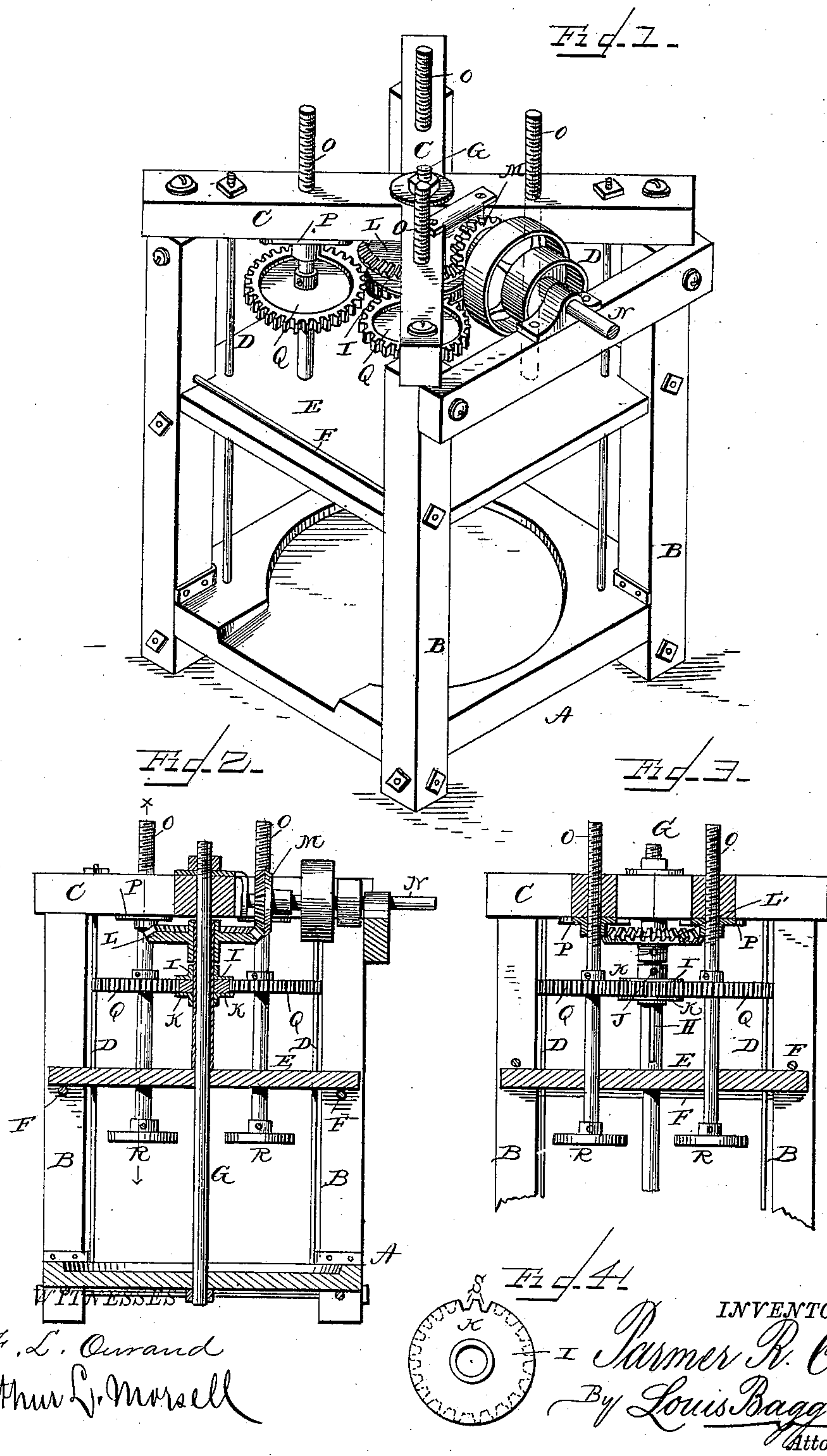
(No Model.)

P. R. CROSS.

CIDER PRESS.

No. 330,470.

Patented Nov. 17, 1885.



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UNITED STATES PATENT OFFICE.

PARMER R. CROSS, OF LOWELL, INDIANA.

CIDER-PRESS.

SPECIFICATION forming part of Letters Patent No. 330,470, dated November 17, 1885.

Application filed September 17, 1885. Serial No. 177,391. (No model.)

To all whom it may concern:

Be it known that I, PARMER R. CROSS, of Lowell, in the county of Lake and State of Indiana, have invented certain new and useful
5 Improvements in Cider-Presses, &c.; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same,
10 reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of my improved cider, fruit, and cheese press. Fig. 2
15 is a vertical transverse sectional view of the same, taken centrally through the operating-shaft. Fig. 3 is a vertical transverse sectional view, taken on the line *x x*, in Fig. 2, through two of the operating-screws and their attach-
20 ments. Fig. 4 is a detail view of the pinion.

The same letters refer to the same parts in all the figures.

This invention relates to presses for the manufacture of cider, for the pressing of cheese,
25 for expressing the juice from grapes and other fruits, and for all other similar purposes; and it has for its object to provide a device of this class which shall possess superior advantages in point of simplicity, durability, and general
30 efficiency.

With these ends in view it consists in the improved construction, arrangement, and combination of parts, which will be hereinafter
35 fully described, and particularly pointed out in the claims.

In the drawings hereto annexed, A designates the base of my improved press, which consists of a square wooden flooring of suitable dimensions, at the corners of which are
40 secured the four uprights or vertical corner-posts, B B, the upper ends of which are connected by diagonal braces C C, forming cap-pieces, which are securely bolted or otherwise attached to the upper ends of the said corner-
45 posts. The said cap-pieces are also connected with the base by means of suitable brace-rods, D D, that afford additional strength and security. At an intermediate point between the base and the cap-pieces is arranged a horizontal partition, E, which is firmly secured to
50 the corner-posts, which latter are also connected by means of horizontal brace-rods F F.

G designates a central vertical shaft having its bearings in the base A and in the cap-pieces C C, at the point where the latter intersect each other. Said shaft is provided
55 with a vertical slot, H, extending between the cap-pieces C and the horizontal partition E, and it carries a pinion, I, which is attached to the said shaft by means of a key, J, extending into the slot H, so that the said pinion may slide vertically upon the said shaft while it revolves with the latter. The said pinion is provided with flanges K K on its upper and lower sides, extending over the interdental
65 spaces, except two, as will be clearly seen at S in Fig. 4 of the drawings. The shaft G is provided at its upper end with a bevel-gear, L, meshing with a pinion, M, which is fixed upon the inner end of a horizontal shaft, N,
70 which is mounted in suitable bearings at the upper end of the frame. The said shaft, which is the operating-shaft, may be provided with a crank or handle whereby it may be turned, or it may have a pulley or band wheel for receiving motion from any suitable source of
75 power. Suitable bearings are provided in the partition E and in the cap-pieces C C for a series of vertical shafts, O O, four in number, the upper ends of which are screw-threaded
80 and work in nuts or screw-threaded boxes P at their upper bearings. Said shafts are provided with gear-wheels Q Q, meshing with the pinion I upon the vertical shaft G, and fitting between the flanges K K of the said pinion,
85 which will thus be forced to travel upon the shaft G in an upward or downward direction, according to the direction of rotation of the screw-threaded shafts. The latter are provided at their lower ends with swiveled fol-
90 lowers R R, which may be attached to the said shafts in any suitable manner. When it is desired, any or all of the shafts can be disconnected from the driving-shaft by loosening the wheel Q from its shaft and slipping its cog
95 through the notch S in the flange of the pinion I, and slipping the wheel down to the platform or partition E. To reconnect it the wheel is slipped back into place through the notches S and again secured to its shaft.
100

The operation of my improved press will be readily understood from the foregoing description, taken in connection with the drawings hereto annexed. The press-box is placed

upon the base of the frame, surrounding the central vertical shaft, and the follower which works in the press-box is in turn actuated by the followers at the lower ends of the screw-threaded shafts, all of which work in unison, thus applying an even and steady pressure. By turning the main operating-shaft, which may be done by hand or by any suitable power, the central vertical shaft will be revolved, thus causing its pinion to actuate the screw-threaded presser-shafts, which in turn will cause the pinion to traverse vertically upon its shaft as the screw-threaded shafts are moved in an upward or downward direction, as the case may be.

The general construction of my improved press is simple and inexpensive, and it may be easily and conveniently operated with comparatively a slight expenditure of power.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. The combination, with the gear-wheels secured upon the upright screw-threaded shafts of a press, of a movable pinion sliding upon the driving-shaft, said pinion being provided with flanges extending over the inter-dental spaces, substantially as and for the purpose set forth.

2. The combination, with the gear-wheels secured upon the upright shafts of a press, of a pinion sliding upon the driving-shaft, said pinion being provided with flanges extending over the inter-dental spaces, except two, substantially as and for the purpose set forth.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

PARMER R. CROSS.

Witnesses:

MONROE WILLIAMS,
ELLIS B. CROSS.